PAIRED READING: A STRUCTURED TECHNIQUE FOR ENHANCING THE READING LEVEL OF GRADE TWO CHILDREN

CENTRE FOR NEWFOUNDLAND STUDIES

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LINDA MARGARET (BUTTON) LAITE, B.A.(Ed.)

PAIRED READING: A STRUCTURED TECHNIQUE FOR ENHANCING THE READING LEVEL OF GRADE TWO CHILDREN

by

© Linda Margaret (Button) Laite, B.A. (Ed.)

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ABSTRACT

This sixteen week study compared the gains made in word identification, reading comprehension, and meaning vocabulary of two groups (control and experimental) of grade two children. The purpose of the study was to instruct parents in an easy but effective procedure known as paired reading which could result in increased reading levels in their children. The impact of the paired reading procedure on reading achievement was estimated by an ordinary least squares regression method. The outcome variables were reading comprehension, word identification and meaning vocabulary.

To control for the possible confounding effects of age and sex, these variables were added to the equations as covariates. Thus, the impact of the treatment (paired reading between parent and child) on word identification, reading comprehension and meaning vocabulary were estimated while controlling for age and sex.

Both groups of children continued to receive regular classroom instruction in reading. The paired reading procedure was used only with the experimental group; therefore, paired reading is referred to as the treatment. It was found that the impact of paired reading on reading comprehension and meaning vocabulary was negligible; however, the relationship was in the expected direction. The impact of treatment on word identification was statistically significant at the 0.1 level.

In sum, in this study the paired reading technique seemed to be a viable and easily learned method by which parents could be taught to enhance the reading levels of their children, especially in the area of word identification. These findings may have important implications for teachers who are concerned about continued reading failure in children and who seek the help of parents in remediating such failures.

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CHAPTER 1

AN INTRODUCTION TO THE STUDY

Reading is considered by primary teachers and parents to be the most important subject in the school curriculum and considerable time and effort is spent in attempting to produce able readers. The emphasis in many primary classrooms appears to be on teaching children how to read through teaching them the subskills of reading. There is, however, a growing body of literature to support the notion that children learn to read best by actually engaging in the act of reading from the very beginning of school. Despite the availability of such literature, many teachers and parents fail to recognize the importance of exposing children early and continually to reading through the use of quality childrens' books.

It is a widely accepted belief that parents are the first and probably the most important teachers of their children and have a far greater influence than schools can even hope to exert (Beveridge & Jerrams, 1981; Griffiths & Hamilton, 1984; Pumfrey, 1986; Spalding, Drew, Ellbeck, Livesey, Musset & Wales, 1984; Tizard, Schofield & Hewison, 1982; Topping, 1984a; Trelease, 1985; Weiser, 1974; Wolfendale, 1983). Even before children enter school, they have learned from significant others a wealth of information about language and the functions of language (Chomsky, 1979; Clay, 1977; Goodman, 1970, 1973; Heath, 1982, 1984; Huck, 1977; Smith, 1971, 1978a, 1978b). There are, however, many parents and some teachers who may be unaware of the importance of reading to children, of listening to children read, and of the part that such exposure to print plays in fostering reading achievement. The child who has been read to, or who reads a variety of rich and complex materials, benefits from a range of linguistic input that is unavailable to the nonliterary child (Chomsky, 1979). Children with a good background of book experience are less likely to encounter problems with reading and learning to read than those children who have not had regular exposure to

books. Indeed, some children, from home backgrounds where book reading has been a regular daily event, come to school already reading (Clay, 1977; Goodman, 1984, 1986; Holdaway, 1979; Smith, 1978a).

Many people believe that failure to do well in reading, and school in general, can be directly attributed to low socioeconomic status. Parents within this status are often viewed as not valuing an education and are, therefore, not willing to help their children at home. This notion has been refuted by several researchers who found that parents of low socioeconomic status were most anxious to help their children with reading but were often not sure what to do (Beveridge & Jerrams, 1981; Heath, 1982; Hewison & Tizard, 1980; Teale, 1984, 1986; Weinberger, Jackson & Hannon, 1986). In these studies it was found that the greatest factor in a child's success or failure in reading was not socioeconomic status but whether parents read to or listened to their children read. It seems fairly certain that parents who consistently read to their children and encourage interaction with print are contributing not only to their children's gains in reading but also to the quality and enjoyment of their reading.

Governments and educational institutions in Britain and the United States have published reports supporting and encouraging parental involvement in children's education (Wolfendale, 1983). Reports such as these have given parents the legal right to be actively involved in their children's education. Simply stating the fact, however, does not bring about action. Parents are still reluctant to become involved and teachers are probably more reluctant to encourage parental involvement for fear that the help given at home may conflict with the teaching methods used in school (Beveridge & Jerrams, 1981; Epstein, 1986; Tizard, 1977; Weinberger et al. 1986). These researchers suggest that parents need to be invited and directed by teachers to become involved in their children's education.

Statement of the Problem

Weiser (1974) maintains that in a class of thirty children, the teacher has about three minutes per day to spend on reading with each child. This is obviously insufficient time for the primary classroom teacher to adequately deal with children who are either beginning readers or are having difficulty in learning to read. Both need extensive exposure to books in order to become able readers. In an attempt to make up for the lack of available time for practicing reading at school, teachers often ask parents to help their children with reading at home. The problem is that parents are seldom given a clear and well structured way in which they can help their children. Unless parents have specific guidelines to follow in helping their children with reading, more problems may be created than solved (Burdett, 1986; Freshour, 1972; Pumfrey, 1986; Spalding et al. 1984; Tizard, 1977; Topping, 1984b). Parents want to help, and do try, but often feel inadequate and fear that they may be doing something detrimental to their children.

Research supports the notion that children who are not privileged to have parents who read with them and to them are deprived of a rich source of vocabulary and ideas which should ultimately help them to become better readers. The problem to be dealt with in this study is how to encourage parents to assist their children with reading and, at the same time, to provide a structure for parental involvement that will direct parents in appropriate activities that will enhance their children's reading ability.

Purposes of the Study

The primary purpose of this study was two-fold. The initial purpose was to provide a program that would allow and encourage parents to become directly involved in developing their child's reading ability through a technique known as

paired reading. This technique, in brief, involves parent and child reading together five nights a week for five to fifteen minutes each night. The parent must follow specific guidelines as to how best to help the child during these reading sessions. The second purpose was an evaluative one. An attempt was made to determine whether reading with children on a regular basis by parents who had been trained in this technique, would have a significant effect on reading achievement as measured by comprehension, reading accuracy (word identification), and receptive vocabulary tests. In this evaluation of the effectiveness of the program the following questions were addressed.

1. Would grade 2 children who participated in a paired reading program make greater gains in reading comprehension than grade 2 children who did not participate in such a program?

2. Would grade 2 children who participated in a paired reading program have greater control over their reading accuracy than grade 2 children who did not participate in such a program?

3. Would grade 2 children who participated in a paired reading program have greater control over their meaning vocabulary than grade 2 children who did not participate in such a program?

The secondary purpose of this study was threefold. First, an assessment was made as to whether the program of paired reading was more effective for boys or girls. It is readily agreed by educators that, at a very young age, girls do better academically than boys. Girls are likely to have a broader vocabulary and demonstrate superior reading skills than boys. This seems to result because of the differences in cultural expectations in our society for males and females (Keeves, 1985; Peterson, Crocket & Tobin-Richards, 1982). Girls are likely to spend more time interacting with adults in a literary situation. For boys it seems

more acceptable to be involved in activities such as fishing, playing ball, and playing hockey instead of being involved in the more passive reading related activities. Second, an assessment was made to determine whether the program of paired reading was more effective for older or younger grade two children. Age was chosen as an independent variable because of the range in ages that can be found in classrooms. Because of the rigid, rather than staggered, entrance dates adhered to in this province one may find as much as eleven months age difference within a classroom. One would expect that a child with this disadvantage would not do as well as one with eleven months more learning experience and development. Third, parents and children of the experimental group were asked to evaluate the paired reading program by completing questionnaires (included in the paired reading training package, Topping, 1984b) designed to gather opinions regarding the success of the program from their point of view (Appendices A and B).

Significance of the Study

Reading is a common concern for teachers, parents and children. An alliance between these three groups, such as the one offered through paired reading, could reduce the frustration and feelings of inadequacy so often associated with learning to read.

Through paired reading the problem of reading failure may be lessened a substantial degree. This technique makes available to parents a specific, proven method of improving children's reading ability (Bush, 1983; Lindsay, Evans & Jones, 1985; Morgan, 1986a; Topping, 1984c). It also gives teachers a technique to explain to parents when they inquire, "What can I do to help my child in reading?"

If parents can be taught, through a simple inexpensive procedure, to be effective in enhancing their children's reading levels, government money may be effectively spent coordinating such programs as paired reading. The role of the

primary teacher could be expanded to include one of coordinator and facilitator of parental reading involvement programs.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Parental Involvement in Education

The benefits of parental involvement in a child's education have been attested to by many theorists and researchers in the field of education. Furthermore, the role of parents in the education of their children has become an important concern for teachers and parents alike. Parents' role as teachers of their own children begins at the time when the child is born. Anyone who has watched parents with their children in public places can see that the majority of parents of young children are teaching much of the time. Through activities such as reading books, modelling with playdough, doing puzzles, finger plays, nursery rhymes, and visiting the supermarket, the playground or the skating rink, parents are constantly stimulating and informally educating their children even before they reach school age (Berger, 1983; Holdaway, 1979; Robinson, 1987; Wolfendale, 1985). Daily incidental teaching by parents of language and problem solving strategies (for example, finding a pair of socks that matches a shirt) facilitates the intellectual growth of the young child (Berger, 1983). There is no doubt that children first learn about the world from their parents. Educators should understand the value of this teaching and "help parents to see how important their role is in the education of their children and how it will develop and change as children grow" (Robinson, 1987). Having acknowledged the powerful influence of parents on the educational achievements of their children, some schools are now looking to parents to enhance the educational process by encouraging them to become involved in formal education in an informal manner (Berger, 1983; Merritt, 1987). Contributions of parents can help to compliment and supplement the work of the teacher. Such contributions include assistance with routine administration such as taking off ditto sheets or gathering supplies for projects, reading to small groups of children, supervising group

activities and helping with special events such as field trips or parties (Merritt, 1987).

Government reports on education and child development have also advocated parental involvement in childrens' schooling. Wolfendale (1983) cites three reports out of Britain that are worthy of note - The Bullock Report of 1975, The Plowden Report of 1967 and The Warnock Committee Report of 1978. The Bullock Report adopted the principle that parents play an important part in fostering language development and communication skills in the young child. It also maintained that parents could become facilitators in their children's reading development. The Plowden Report cites evidence that parents display a high level of interest in their children's education and the involvement of parents would facilitate this education. This report also recommends increased parent-teacher contact, receipt of information booklets about schools by parents, improved methods of reporting to parents and frequent and better access to the school by the community. The mandate of The Warnock Committee Report was to review educational provision for children handicapped by physical or mental disabilities in England, Scotland and Wales. The report advocated a partnership with parents in assessment procedures and educational programming. Parents of handicapped children were recognized as having the right to information and support. They were also viewed as a source and resource in the welfare, education and development of their children. The one common theme of these reports is "the insistence that optimization of children's developmental and learning potential is a realistic goal only if parents are involved in the formal processes of education and the delivery of child services" (Wolfendale, 1983, p. 7).

The importance of a strong parent-school-community partnership has been recognized in the United States by the national program known as Head Start. This was a federally funded educational program intended to:

> interrupt the cycle of poverty, the nearly inevitable se-

> quence of poor parenting which leads to children with social and intellectual deficits, which in turn leads to poor school performance, joblessness, and poverty, leading again to high risk births, inappropriate parenting ... .(Cooke, 1979, p. xxiii)

Head Start involved low income families in an outreach program which included dental and health care, nutritional counseling, social and psychological services, education for parents and children and counseling designed to increase the family's participation in the community. Parents were involved in decision making about program content, budgeting and the hiring and firing of staff. Parental involvement in the classroom included working, volunteering and observing programs being taught. In bilingual situations parents were especially useful in bridging the gap between horne and school. Head Start further encouraged parents themselves to enrol in programs intended to better prepare them for the work force. It also provided parents with the chance to learn about child growth and development in the belief that such knowledge would foster better parenting. At least 50% of the membership of the policy committee set up in any area to administer a Head Start program consisted of the parents of children enrolled in the program. The success of this program has been attributed to the direct involvement of parents and the belief that parents can foster their children's education (Berger, 1983).

The importance of parental participation in a child's education is acknowledged in the United States federal legislation of the Elementary and Secondary Education Act which requires that federally funded educational programs involve parents in their planning. In order for schools to qualify for funding they are obligated to include parents in needs assessments and in planning the programs. Nationwide, individual school districts have become involved in various programs which include parental input. One such program is Follow Through, an extension of the preschool Head Start program. Two paraprofessional parent educators were hired for each Follow Through class. Their job included aiding the teacher in the

classroom and visiting the homes of Follow Through children (K-3). Classroom duties included such things as reading to small groups of children and assisting the teacher on field trips. Home visitations were designed so that these parent educators could show parents of Follow Through children how to conduct a home learning activity such as a science project with their children. These paraprofessional parents were considered vital participants in the education of these children and were seen as advocates for the children in speaking on their behalf to try to create a match between children's needs and resources available within the school and the community (Berger, 1983). The idea of this kind of parental involvement was to provide a continuity of educational support for children since the home was seen as an extension of the learning environment of the school. The response of one parent was, "I don't feel that I'm competing with the teacher any longer. For the first time I feel that I'm contributing to the education of my child" (Benet, cited in Berger, 1983, p. 45).

Probably the most important role parents play in such a partnership is that of teachers of their own children. As partners, parents can be helped to become teachers of their children through observations of classrooms, tips from teachers, direct instruction in teaching methods and practical experience (Berger, 1983). Parental involvement programs in the United Kingdom, Canada and the United States support Berger's partnership theory. Programs in these countries attest to the effectiveness of encouraging parents to become actively involved in their childrens' education (Wolfendale, 1985).

In the 1970's, the United Kingdom, Canada, and the United States saw an increase in parental representation and presence in schools which involved parental assistance to teachers in listening to children read, helping in other classroom activities, participating in outings and increased participation by parents in parent-teacher associations. In the 1980's these trends continued and parental represen-

tation in schools expanded to include parents as participants in policy decision making, program planning, program implementation, assessment, and diagnosis.

Such parental involvement has been successful because parents are experts on their own children, their skills compliment professional skills, they can provide vital information as well as make informed observations of their children, and they can make a contribution to decision making. In order for partnership programs to continue to succeed teachers must, first of all, believe that parents have an important role to play in the education process. Second, teachers must be the instigators of parental involvement programs and third, they must be willing to become resource developer, facilitator, counselor, communicator, program director, interpreter and friend to parents (Berger, 1983).

Parental Involvement in Reading

Parental involvement in reading has recently become a major area of activity and research. However, the education profession is divided in its opinion regarding parental involvement in teaching children to read (Wolfendale, 1983). This controversy seems to stem from fears that the teaching methods of parents may interfere with those of teachers thereby reducing the effectiveness of teaching reading by well established procedures. This fear seems unfounded, though, when one looks at the results of a study by Hannon, Jackson and Weinberger (1986) which found that the similarities between parents' and teachers' strategies in hearing children read were much the same. These similarities included how words were supplied for the children, how directions were given, and whether negative or positive feedback was given. The differences between parents' and teachers' strategies in this study were no more extreme than the differences found in the strategies used by different teachers. The only real differences between parents and teachers were that teachers made more use of praise while parents tended to make more use of criticism.

Teachers were also more inclined to model reading than were parents. The most often used technique for both teachers and parents was decoding phonic elements (sounding out unknown words). In response to children's mistakes, parents showed a concern for understanding to practically the same extent as did teachers in that they encouraged the children to use meaning to predict unknown words or paused for children to figure out words for themselves.

It is readily agreed that parents play an important part in fostering the language development and communication skills that form the basis of learning to read. Lack of motivation to read or failure to develop a readiness for reading can often be attributed to the lack of pleasurable experiences with books and adequate language experiences in an environment that offers limited language models (Cohen, 1968). Children's participation in literacy events in early childhood enhances their ability to learn to read connected discourse. This participation begins for some children as soon as they are born when parents, in reading to their children, bring the child and the book together into an emotionally satisfying literacy experience (Goodman, 1984). Evidence suggests that reading to children and hearing children read increases their awareness of literacy skills which they encounter through book interactions. The kinds of literacy skills children acquire from being exposed to books include recognizing letters, distinguishing between print and other marks on the page, understanding that print represents spoken words, learning how to hold books, to turn pages, to start at the front, and to wait for the ending (Snow & Ninio, 1986). Perhaps the most crucial and difficult prerequisite to literacy is the ability to understand and use the more elaborate language of books, something that can only be learned through exposure to books.

Children who have suitable books read to them at home are less likely to have problems with reading after entry to school because, during exposure to good literature, they develop a wide range of attitudes, concepts, and skills

which promote literacy (Holdaway, 1979). They know that books bring pleasure and they have high expectations that print will make sense. They have a set of oral models for the language of books and integrate these into their own natural conversations to the extent that when they begin to read they are intuitively aware when they read something that does not sound meaningful. They will then reread and will often make meaningful substitutions for unknown words. They have begun to integrate, into their own attempts at writing, the symbols and signs of printed language. Initially, this may be simply a series of scribbles and lines or a combination of randomly written letters and numerals. The important thing, however, is that children have learned that these marks they have written convey a meaningful message which they are able to read for someone else. This knowledge that written language is both purposeful and meaningful seems to be a basis of learning to read. Furthermore, children have developed a sense of directionality; that is, they know that print proceeds from left to right and top to bottom. They have learned to respond to the language of books by creating images from past experiences as well as from things not yet experienced (the realm of fantasy and imagination). Children who come to school with these skills are ready for, if they are not already, reading.

Books also provide children with the opportunity to learn about vocabulary, syntax and story grammars all of which are important to learning to read. Most preschoolers and beginning readers like to listen to the same books repeatedly. This should be encouraged because rereading allows the situation of the story to recur with a clarity and totality that does not characterize other recurrent events such as lunch or bedtime, which are always different in detail (Snow & Ninio, 1986). Even though the pictures may restrict the talk that occurs between parent and child, there is opportunity for elaborate discussion of events that occur. Discussion of this nature enhances the vocabulary development of young children (Cohen,

1968; Elley, 1989; Huck, 1977). Knowledge of syntax develops with continued and repetitive exposure to print. Through hearing stories read aloud children begin to develop a sense of story, sometimes referred to as story grammars or story schema. As this story sense develops children:

> begin to build a frame of reference about how stories are written and what to anticipate in the pattern of language of the book. They easily recognize such conventional beginnings and endings of folk tales as "Once upon a time" or ".... they lived happily ever after" (Huck, 1977).

Reading lends itself well to parental involvement since most parents naturally encourage a child's interaction with books. It is believed by many educators, however, that asking parents to become involved without clear guidance as to what they should or should not do may cause more harm than good since parents often put undue pressure on their children where learning to read is concerned (Freshour, 1972; Pikulski, 1974; Topping, 1984b; Weiser, 1974). It is not uncommon for parents and children to experience feelings of anxiety, anger, inadequacy and guilt when parents' ways of teaching reading conflict with the way reading is being taught in school. These problems usually occur because educators fail to explain to parents what is meant by "read to your child". Recent research indicates that simply reading to children may not be enough. Close attention must be paid to the nature of the parent-child book interaction itself since it is the quality of the interaction that determines the value the experience will have in enhancing a child's reading ability (Heath, 1982; Teale, 1984). Parents need to know what reading to a child should entail. It is the teacher's responsibility to help parents acquire this knowledge and to translate their natural concern for their children's educational success into useful and effective action. A technique known as paired reading, said to be an effective and easily learned procedure which guarantees parent-child interactions with good books, has been proposed by several educators and researchers (Topping, 1984b).

Paired Reading - Origin and Theoretical Base

Paired reading had its origins in 1974 at the University of Leicester's Child Treatment Research Unit in Birmingham, England. In the beginning, it was designed as a remedial reading technique for Junior age school children (7 to 11 years old) but has since proven useful for enhancing the reading levels of beginning readers and illiterate adults. Paired reading has also been used successfully with children of a wide range of reading abilities, from those with severe reading difficulty to those with normal reading skills (Topping, 1984b). Originally, teacher volunteers were used as tutors but by the late 1970's parents were being trained to use the technique with their own children (Morgan, 1985).

Behavioural Underpinnings

The initial theoretical basis of paired reading came from a behavioural model of learning which contends that learning is habit formation in which the learner learns an action or a response as a result of practice or training. The learner must also receive reinforcement for actions and/or responses. Even though the actions and responses may not be exactly correct, the learner receives reinforcement for close approximations. Paired reading encompasses two major concepts of behavioural theory: participant modelling in which the child models a more proficient reader (Mom or Dad); and, continuous positive feedback in which parents encourage and praise the child in all attempts at reading.

The technique of paired reading consists of two basic stages: simultaneous reading and independent reading. Before the paired reading session actually begins, the child is given the opportunity to select a book regardless of the reading level of the book. The parent and the child also agree on a nonverbal signal, such as a knock on the table, which the child will use to indicate the desire to attempt independent reading. The pair then find a quiet place in which to share the book.

During the first stage, simultaneous reading, parent and child read the

text aloud together with the parent adjusting the speed so that the reading is synchronous. When beginning the paired reading technique, it is recommended that the child point to the words in order to maintain attention and to ensure that the child leads. As the child gains more confidence the finger pointing may be eliminated. The parent must remember to maintain a supportive role but let the child set the pace so that the child is not simply echoing the parent.

The second stage, independent reading, begins as soon as the child issues the nonverbal signal to the parent. The child then reads aloud alone and receives positive verbal and/or nonverbal feedback (such as a smile) for expressing the desire to read alone. Special praise is given for self-correction of errors or for the reading of unfamiliar or complex words previously encountered in simultaneous reading. During this stage the parent is required to provide support and corrective feedback. If a child either makes an error that is semantically incorrect or if the child is unable to read a word correctly within four or five seconds then the parent would first say the word correctly, then ensure that the child repeats the word correctly, and continue in simultaneous reading until the child again gives the nonverbal signal to read independently (Topping, 1987a). By ensuring that a child does not struggle with figuring out a word for more than five seconds before giving help, parents ensure that paired reading does not become a stressful activity. The avoidance of high levels of anxiety which might inhibit both learning and correct performance is basic to the behavioural origins of paired reading (Morgan, 1985, 1986b).

Psycholinguistic Underpinnings

The theoretical base of paired reading also includes aspects of psycholinguistic theory which advocates reading for meaning over reading accuracy. Psycholinguists such as Clay (1977) and Goodman (1973) believe that children rely heavily on two kinds of information in order to make sense out of print. First, children make use of semantic knowledge or information about the world which leads them

to expect that written stories are represented in books following a particular story format or sequence of events. Second, children make use of syntactic knowledge or information about language that they have intuitively learned from the constant use of language. This leads children to expect certain forms of words to follow each other in the text. For example, in a sentence such as "We found some _____ s," two clues imply that whatever was found is a noun: the noun determiner, some, and the plural, s. The psycholinguistic approach to reading encourages children to make use of semantic and syntactic knowledge with the belief that accuracy will improve as they learn to read more fluently (Clay, 1977; Goodman, 1973; Smith, 1971). These semantic and syntactic features of language are referred to by psycholinguists as redundancy of language. Although the psycholinguistic theory of reading does not advocate an overreliance on orthography (spelling information), these features of print are also considered to add to the redundancy of language. For example, in the unfinished sentence "Mom yells at me when she is an _____" the next letter is unlikely to be b, f, h, j, m, p, q, r, w, or z because these letters seldom occur after 'an' in most words of the English language (Smith, 1982). To illustrate further, the occurance of the letter 't' in the first position of a word limits the possible letters that can occur after it to h, r, a, e, i, o, u and y. Children must attend to such phonetic features at the beginning of words, in the middle of words and at the ending of words. A reader who has the implicit knowledge of the way in which letters are grouped into words is able to make use of orthographic redundancy. A knowledge of such redundant phonetic features of words makes it easier for the reader to predict unknown words. Awareness of structural features such as inflectional endings and prefixes are further redundant features of words which aid the reader in prediction.

Psycholinguists maintain that children gain information, make predictions and confirm expectations and intuitions about print based upon their awareness of

the redundancy in language. They believe, however, that these skills were acquired through reading and/or listening to stories being read rather than through direct instruction in these subskills of reading. It is thought that direct instruction in the subskills of reading often leads to the reader attending to only one feature at a time, such as recognition of individual letters or words. When this happens, the reader often fails to gather the meaning of what is being read. In order to gain the maximum information, the reader must attend to the distinctive features of words, the syntax, and the meaning of the words all at the same time.

Like the psycholinguists, advocates of paired reading believe that children learn to read best by actually reading. The paired reading technique requires that the parent and the child read together for a regular period of time, usually ten to fifteen minutes, for five days per week. Thus, time spent on reading for some children is dramatically increased. Supporters of paired reading, like psycholinguists, believe that good readers acquire and readily use phonic skills which are learned through reading rather than through learning the subskills of reading. When a child makes an error during paired reading the parent corrects the mistake because the availability of virtually immediate support, frees children from word-by-word decoding and enables them to read much more fluently with greater awareness of contextual cues (Topping, 1987b). With paired reading there is no word analysis, no leaving the child to struggle for long periods of time with word identification which may result in loss of meaning. There is no emphasis on errors because children receive only positive reinforcement for their attempts. They are given about five seconds to try to predict an unknown word from the context in which it occurs. If unsuccessful, the parent simply tells the child the word and resumes simultaneous reading. This practice is in keeping with the belief among psycholinguists that a child can best discover what a word is by using context, by listening to someone else read the word, and/or by asking someone the word

(Smith, 1978b).

Training children to read with an aural pacer, as in the simultaneous stage of paired reading, could help children copy the syntactic groupings signalled by the intonation patterns of the aural pacer and enable them to move away from word-by-word reading of text. In a study by Neville (1968) it was found that beginning readers improved reading fluency and reduced vocalization when listening to a reading or recording of a text while visually following the text. She also discovered that the slower the rate of the aural pacer, the higher the comprehension scores were for the 18 remedial readers in the study. In stage one of paired reading (simultaneous reading) children are reading their own selected text with a parent who is following the pace set by the child. The pace is then as fast or as slow as the child needs.

In order for children to effectively utilize contextual clues, they must be provided with material that makes sense to them given the prior knowledge that they bring to the text. Both psycholinguists and advocates of paired reading emphasize the use of real books which have predictable story lines rather than graded readers with carefully controlled vocabulary and artificially constructed sentences (Barrett, 1987; Prentice, 1987). During the paired reading of a story, parent and child sit close together in a quiet, comfortable place. They discuss the significance of the title and the pictures prior to, during and after reading. Discussion of the story as it unfolds is also encouraged to maximize use of contextual clues.

In summary, many of the theoretical underpinnings of paired reading reflect both the behavioural and psycholinguistic theories of reading. Modelling a proficient adult reader and receiving positive reinforcement for attempts at reading difficult words is a potent learning situation from a behavioural viewpoint. From a psycholinguist view, paired reading appears to be an ideal tool for improving a child's reading ability. During paired reading children are encouraged to read for

meaning from trade books rather than reading from basal readers. They are encouraged to use semantic and syntactic knowledge to aid the prediction of unknown words as well as to predict what might happen next in the story. Furthermore, children receive extensive reading practice.

Motivation for Child and Parent

Another important feature of paired reading that has a theoretical framework is motivation to read. Children who experience repeated failures in reading often lack motivation and view themselves, and are viewed by others, as poor readers. This low self-perception is often one of the major factors affecting a child's success or failure in reading (Butkowsky, 1980; Griffiths & Hamilton, 1985; Ignoffo, 1988). Poor readers who have a low self-perception tend to attribute their reading failure to lack of ability. In order to change this negative self-perception Butkowsky (1980) maintains that children must see that their problem is not related to ability but to lack of effort or motivation to read. By changing children's attitudes about themselves we may increase their motivation, persistence and expectations of success. Children must come to realize that reading is a skill and, like any other skill, it has to be practised. The more reading one does the better reader one becomes and, conversely, the less effort one puts into practicing, the more difficult it is to be a good reader (Biemiller, 1978; Cullinan, 1987; Trelease, 1985). With paired reading, children are given the opportunity to choose books or other reading materials they are interested in which becomes a motivator to want to read (Huck, 1977; Morgan, 1986a; Prentice, 1987).

Through the technique of paired reading, self-esteem is enhanced because failure is practically eliminated and children receive constant positive reinforcement. Motivation to read is high because paired reading lifts previous inhibitions about reading such as undue pressure, failure, boredom and anxiety (Morgan, 1985; Topping, 1985).

A final feature of paired reading is the willingness and ease with which parents learn and use the technique. As mentioned earlier, parents want to help their children with reading but often they do not because they are unsure of how to go about it. Researchers and educators agree that parents who wish to help their children with reading often need guidance, reassurance, and training in appropriate methods. Paired reading has been advocated as one technique of structured help in which parents, with guidance and practice, can be easily trained.

Paired Reading - Research Findings

Topping (1987b) states that evidence from approximately one hundred research projects indicates that children involved in paired reading progress about three times the normal rate in reading accuracy and about five times the normal rate in reading comprehension. Although all studies did not include a control group, collectively, they do indicate the potential of paired reading for maximizing the ease with which children learn to read. The studies have been conducted with children of all levels of ability including slow learners, reading retarded children and children of above average ability. Both males and females between the ages of five and fourteen have been included in the studies. The duration of paired reading projects has ranged from six weeks to twelve months with long term effects being investigated through monitoring procedures in the various schools in which the studies were undertaken.

The following four studies into the effectiveness of paired reading involved the use of both a control and a treatment group. All children were experiencing reading difficulty and were reading one or more years below what was expected given their chronological age. The children ranged in age from 7 to 13 years.

Burdett (1986) conducted an eight week project in Hong Kong with 48 children ranging in age from 7.6 to 11.4 years. These children were either reading

one year or more below their chronological age or had reading problems of a lesser magnitude but teachers felt they could benefit from extra reading tuition. The 18 girls and 30 boys all spoke and read in English. The school curriculum was very similiar to the British primary curriculum. The subjects were randomly divided into three groups, the paired reading group (PR), the individualized reading group (IR), and the control group (C). The individualized reading technique was very similiar to the paired reading technique. The difference was in the correction procedure. If a child made a mistake but the word conveyed the same or similiar meaning, the child was not interrupted and the error was pointed out later. If the mistake did not make sense, the child was interrupted and asked to think about what the word was. If this failed, the correct word was supplied for the child. The children in the PR and IR groups were further divided into subgroups for parental involvement investigations. Eight children from the PR group received paired reading with parental involvement (PR+) and eight children received paired reading without parental involvement (PR-). The same procedure was followed for the 16 children in the IR group. Eight received parental involvement (IR+) and eight did not (IR-). All children involved in the paired reading and individualized reading groups received three 5 minute sessions with the researcher and two with their classroom teacher (PR- and IR-). The parental involvement groups PR+ and IR+ received, in addition, 5 to 10 minute sessions at home five times a week. The control group received its normal classroom tuition. All children were administered pretests and posttests using the Wide-Span Reading Test of Comprehension and Accuracy. Overall, both experimental methods involving parents were effective in increasing comprehension levels. The PR+ group made five times more progress than the controls while the IR+ group made four times more progress than the controls. The PR+ group made the most progress in reducing error rate. Burdett believes her study confirms that a guided, structured approach to parental

involvement in children's reading is beneficial.

Carrick-Smith (1985) set up a six week paired reading project involving 56 twelve and thirteen year olds who were all experiencing reading difficulty. These pupils were matched for reading accuracy and age and then equally divided into control and experimental groups. Pretests and posttests were administered to both groups using the Neale Analysis of Reading Ability for Accuracy and Comprehension. The experimental group made gains in accuracy 4 to 7 times the normal rate and gains in comprehension 1 to 4 1/3 times the normal rate. Unfortunately, the gains were not given for the control group. A follow-up study after 12 months revealed that the gains made in accuracy and comprehension were maintained after the project period although at a reduced rate. The control group had made steady gains but had not caught up to the experimental group.

Heath (1985) conducted a three month study with 12 seven to nine year olds whose reading age was one year or more below that expected for their chronological age. These students were randomly divided into three groups (4 students per group). One group used the paired reading technique. Another, also involving parents, emphasized praise for only the words successfully read by the children and was called the reinforcement group. A control group received no intervention. All children were administered pretests and posttests using the Neale Analysis of Reading Ability for Accuracy and Comprehension. In this study the results indicated that the paired reading technique was successful and more powerful than simply having parents give praise for words read correctly. The paired reading group made an average of 8 months gain in accuracy and 15 months gain in comprehension during the 3 months of the project. The reinforcement group made an average of 5 months gain in accuracy and 4 months gain in comprehension while the control group made average gains of 0.25 months in both accuracy and comprehension.

Miller, Robson and Bushell (1986) headed a six week paired reading study involving an experimental group of 33 children. A control group was also used, however, the number of children in the control group was not reported. The children were chosen on the basis of age and reading delay. They were between 8 and 11 years old and were reading at least 18 months below that expected for their chronological age. Pretests and posttests were administered to all children using the Neale Analysis of Reading Ability for Accuracy and Comprehension. Parents of the experimental group were asked to read with their children for 20 minutes, six nights a week. The control group received no extra home tuition. The experimental group made average gains of 2.43 months for reading accuracy and 4.36 months for reading comprehension. The control group made average gains of 0.81 months for reading accuracy and 1.69 months for reading comprehension. These differences were statistically significant for accuracy but not for comprehension.

The following two studies did not involve a control group; instead comparison groups were used. Jones (1987) described a ten week paired reading project which involved 43 five to seven year olds of varied ability. The children were randomly divided into two groups to allow for comparison of the paired reading technique to having parents simply listen to their children read aloud. Individual assessments were given before and after the treatment using the Neale Analysis of Reading Ability for Accuracy and Comprehension. The paired reading group made larger gains, however, the differences did not reach statistical significance. Average increases in reading for the paired reading group were 3 1/2 times the norm while average increases for the other group were 2 1/2 times the norm.

Jungnitz (1985) conducted a 12 week project with 28 seven to nine year olds whose reading age was below that expected for their chronological age. Eleven pupils were assigned to a paired reading group, ten pupils were assigned to a group whose parents were asked to help with reading at home but were given no specific

guidelines, and seven pupils received no known home tuition. These seven made a comparison rather than a control group since assignment to the groups was not done randomly. All children were administered pretests and posttests using the Schonell Word Accuracy Test and the Neale Analysis of Reading Ability for Accuracy and Comprehension. Posttest scores on the Schonell showed a significant difference ($p < .05$) between the mean scores of both experimental groups in relation to the comparison group. It was believed that this indicated that help with reading at home assisted in raising attainment levels. Posttreatment testing for the Neale Reading Accuracy test showed a mean gain of 13.1 months for the paired reading group, 7.1 months for the group receiving parental help with no guidelines, and 3.9 months for the comparison group. For the Neale Reading Comprehension test, the mean gain of the paired reading group was 15.6 months. For the group receiving parental help with no guidelines, the mean gain was 6.8 months. For the comparison group, the mean gain was 1.0 month. The mean gain of the paired reading group was significantly higher ($p < .05$) than the gain made by the second parental involved group. It appears that paired reading had significantly raised achievement levels in reading comprehension and accuracy.

The following studies into the effectiveness of paired reading seem worthy of note because of the gains made by children in reading accuracy and comprehension. These studies, however, were only briefly described and some important information, such as whether a control group was used, was not given.

Coldwell (1987) reported an 8 week paired reading project involving 21 children. The children were between the ages of 7 and 10 and had been receiving remedial reading instruction. Pretests and posttests were administered using the Neale Analysis of Reading for Accuracy and Comprehension. On average, the group gained 2.7 times the usual gain in reading accuracy and 4.8 times the usual gain in reading comprehension.

An 8 week paired reading project was conducted by Doyle and Lobl (1987) which involved 16 children with reading related problems such as hearing, speech and late entry into school. Pretests and posttests were administered using the Neale Analysis of Reading for Accuracy. It was found that the children, on average, gained 3.7 times the expected rate for reading accuracy. A follow-up, four and one-half months later, indicated that on average, the children had maintained their gain and were continuing to progress at normal rates.

Bush (1983) reported on an 8 week paired reading project involving 65 children who were between 8 and 11 years of age and were reading two years or more below that expected for their chronological age. Pretests and posttests were administered using the Neale Analysis of Reading for Accuracy and Comprehension. On average, these children showed gains in accuracy 5 1/2 times the normal rate and gains in comprehension 8 1/2 times the norm.

Topping (1984b) makes reference to the results of three paired reading projects which ran from 7 to 8 weeks and involved 18 eleven to fourteen year old children with moderate learning difficulties and reading two years below that expected for their chronological age. Pretests and posttests were administered using the Neale Analysis of Reading for Accuracy and Comprehension. The mean reading age gain in accuracy ranged from 1 to 3 times the normal rate while the mean reading age gain in comprehension ranged from 4 1/2 to 6 1/2 times the normal rate.

Other studies conducted by Dickinson (1987), Grundy (1987) and Morgan and Lyon (1979) all reported similiar results to those described above. These researchers, however, also stressed the importance of looking at the less tangible benefits of paired reading as well as the gains made in reading age. One might not always be able to judge the success of a parental involvement program in terms of measurable gains, therefore, broader criteria by which to assess the success of

the venture should also be applied. Smith, (cited in Wolfendale, 1985) maintained that:

> We cannot and should not regard only gains as the index; less tangible factors to do with parental confidence-building, teachers' positive perceptions, the manifest spin-off to children, and probable enhanced competence in managing and teaching children by the adult care givers are equally important (p. 6)

The Second Annual Report of the Kirklees Psychological Service (1986) summarized the results of paired reading projects done in 1985-1986 in the following way. When the gains of project children were compared with base-line gains and control group gains, the results confirmed the consistent impact of the paired reading technique. Short term follow-up of nine projects indicated that three months after completion of the projects, the children continued to accelerate at above normal rates. Long term follow-up of four projects indicated that twelve months after the completion of the projects acceleration slowed down, however, paired reading children continued to maintain their advantage and the effects of paired reading did not diminish.

Reading Comprehension

Theories on reading comprehension are as varied as the instructional practices used in the teaching of reading. It is beyond the scope of this thesis to deal in detail with the theories of reading comprehension; rather, the focus will be on the interactive view of the reading process with emphasis on the notions of schemata and prior knowledge. The main objective is to describe how these theories may be translated into instructionally useful concepts that could serve to improve children's comprehension through the use of paired reading.

Schema theory is an interactive view of the reading process whereby the reader collects evidence about what the text might mean as reading proceeds.

This evidence comes from two sources: (a) information conveyed in the text; and, (b) hypotheses in the reader's mind. The vast amount of conceptual knowledge that people have of the world, which they draw upon to understand any text, is stored in structured networks known as schemata (Mason, 1984). Schemata (plural) are likened to theories in which an individual is constantly forming and evaluating hypotheses in an attempt to find the most plausible interpretation of the text (Anderson, 1985; Rumelhart, 1981). Thus, this schema-theoretic view of the reading process has two components. The first involves the formulation of hypotheses through an interaction between reader and text. The second involves a progressive refinement and evaluation of those hypotheses in an attempt to comprehend, interpret, or evaluate the printed information. The schema that one brings to bear on a text depends upon one's age, sex, race, religion, nationality, experiences and occupation. Comprehension of a text requires simultaneous analysis at the grapho-phonemic, morphemic, semantic, syntactic, pragmatic, and interpretive levels of reading. If reading is viewed as an interactive process, however, analysis of text would not proceed in the order of visual information in letters to the overall interpretation of text but rather one would bring one's prior knowledge to bear on this interpretation (Anderson, 1985; Mason, 1984; Rumelhart, 1981). As readers are exposed to more reading materials they learn to discover the distinctive features in letters, words, and meaning. In order to learn from print, readers take chances and risks in order to predict meaning. Identification of meaning, and not identification of letters or words, becomes the readers main objective. The reader reads the text as though it is expected to make sense, bringing to bear his or her knowledge of the world and of the subject matter conveyed in the text. In order to reduce uncertainty about meaning, the reader makes use of orthographic, syntactic and semantic knowledge to confirm or reject predictions. The reader is presumed to make predictions while reading, based upon awareness

of redundancies in the language, upon past experiences and upon how closely the conceptual ability of the reader matches the concepts presented by the author. Children who have had considerable exposure to story book language learn to expect certain story elements to occur (Trelease, 1985). For example, they learn that characters often face conflicts which they must resolve. This sense of story development enables children to make better predictions about what will happen next in a story.

There appear to be two processes at work in the schemata theory of gathering from and bringing information to text in an attempt to comprehend it. These are referred to as top-down (gist-type analysis first) and bottom-up (print analysis first) processes (Anderson, 1985; Mason, 1984). If, as is often the case with beginning or unskilled readers, a child has to give undue attenion to the bottom-up process comprehension will suffer (Clay, 1977; Goodman, 1973; Mason, 1984; Smith, 1971). In order for comprehension to be successful, a reader must interpret what a segment of a text means by using both bottom-up (analysis of the print) and top-down (hypotheses in the mind) processes. The basis of the schema approach to reading is the belief that comprehension consists in representing or organizing information in terms of one's previously acquired knowledge (Mason, 1984) and, as such, schema theory is very closely tied to the notion of the importance of prior (world) knowledge advocated by the psycholinguistic model of reading. Prior knowledge has been described by Smith (1982) as the theory of the world in the brain, which is the source of all comprehension. In order to decode and understand the written language a reader must bring to bear his knowledge of language, his past experiences, and his conceptual ability when processing the language information encoded in the form of graphic symbols. The reader must interact simultaneously with the surface features of the text and the meaning inherent in the text. Comprehension is unlikely to be successful if readers have to

pay too much attention to surface features without taking advantage of the sense of the whole text.

Enhancing Comprehension

Many researchers agree that some kind of background knowledge is essential for comprehension. They argue that reading is a meaning based process in which readers comprehend text through interactions between text and personal background knowledge and experience. The total of these interrelated and integrated personal experiences constitute a reader's prior knowledge and schemata. This prior knowledge and schemata serves as a blueprint or framework which allows the reader to logically organize and integrate new incoming information from text (Widomski, 1983). An implication of this contention is that if we want to enhance a child's comprehension of what he reads, we would do well to increase his general knowledge and understanding as well as teach him specific reading skills (Trabasso, 1981). Many researchers agree with Trabasso. Children's failure to comprehend written text may be due to their lack of appropriate knowledge or schemata needed for making sense out of text. It may also be due to the fact that they do not know how to use what knowledge they do have in order to understand the text.

Two major questions arise out of the research on comprehension and learning from text. First, can children be taught the knowledge, skills, and strategies which will enable them to become better comprehenders? Second, what interventions before, during, and after reading can increase what children comprehend from their reading beyond the increase that might occur when children simply read independently? A partial answer to these questions may be that in order to "motivate children to learn to comprehend text it is necessary to provide instruction in those strategies or behaviours that good comprehenders appear to exhibit, and to provide sufficiently meaningful opportunities within which to explore and practice

these behaviours" (Shanahan, 1982, p. 113). Three types of activities intended to help children build background knowledge and develop strategies for enhancing comprehension are outlined below.

First, some activities are carried out before reading begins and are referred to as prereading activities. They provide a bridge between a reader's knowledge base and the text about to be read. Two such prereading activities relevant to paired reading are: (a) prequestioning or the asking of questions by the parent prior to the child's reading of the text; and (b) discussion of the pictures and the title before reading begins. Prequestioning activities are believed to alert children to the nature of the reading and its relevance to their background knowledge (Flood, 1977). These questions also provide a reader with a means to evaluate, categorize and generalize about the material being read (Pressey, cited in Tierney & Cunningham, 1984). Discussing the pictures and the title prior to reading is thought to improve a reader's ability to understand information because it enables the reader to gather relevant contextual information, which leads to an improvement in comprehension of unclear or ambiguous passages (Arnold & Brooks, 1976; Bransford & Johnson, 1972).

Second, activities that are carried out while reading is taking place are referred to as during reading activities. Such activities increase the extent to which material to be learned is accessible to readers because discussion of ambiguous meanings, prediction of what will happen next and clarification of the author's intent improve a reader's ability to comprehend text (Tierney & Cunningham, 1984). One during reading activity which correlates well with paired reading is the use of the Directed Reading Thinking Activity (Stauffer, 1969). When using this activity, the parent or teacher asks the child questions which require predictions about what will happen next in a story. The questioning and discussion that occurs during this time identifies and provides background information or content

schemata which assists the child in understanding the story as it evolves and enables confirmation or rejection of predictions in an ongoing fashion.

Third, activities designed for use after a child has read a text are termed postreading activities. It is assumed that such activities will enable the retention, reinforcement, extension and/or application of previous learnings (Flood, 1977). One such activity applicable to paired reading is postquestioning. This technique involves asking questions of students after the reading of a text in order to assess their earlier predictions and understanding of the text. This has been shown to be a valuable exercise, however, one must be cautious in formulating the type of questions asked because it has been demonstrated that higher level inferential type questions produce greater learning effects than lower level, straight recall questions (Tierney & Cunningham, 1984).

Another postreading activity which can be employed by the paired reading technique is to have children retell stories they have read. In the beginning children may need assistance from an adult in the form of questions (such as who was the story about? when did the story happen? what was the problem? and how was the problem solved?) in order to recall the events of a story. It is believed that questions like this help children with the structural elements of a story. Consistent instruction in this technique leads to an improved sense of story, better comprehension and a more complex use of vocabulary (Flood, 1977).

Developing Reading Comprehension Through Paired Reading

From the research literature, it appears that a prerequisite to the development or enhancement of comprehension strategies is good background knowledge and/or a schema or theory of the world which develops as a result of cultural experiences. The development of a story schema could be viewed as one specific aspect of a person's general schemata. Just as children develop a theory of the world (schema) from experiences provided them in their culture, so too, they develop a

sense of story and a frame of reference about how stories are written as well as what to expect in the pattern and language of books (Huck, 1977). This story sense, known as story schema, develops as a result of continual exposure to good literature in the same way as background knowledge and schemata can be enhanced through reading. Children begin to integrate common story elements, such as the traditional once upon a time beginning for fairy tales, into their own attempts at story writing. The stories they hear and read contributes to the development of what the world is like - its vocabulary and syntax and its people (Applebee, 1978). Book reading is one way of building familiarity with the structure of text which in turn enables children to develop ways of taking meaning from text (Teale, 1984). From reading books children learn that stories have a beginning, a middle, and an end. They learn that characters in stories often have to face problems and find ways of solving them. Knowledge of such common story elements enables children to develop their self-monitoring and predictive strategies. They also learn to apply the knowledge gained in one context to another context which makes it easier for them to interpret different kinds of text.

With the paired reading technique children are exposed to a variety of reading material that is of interest to them since they are able to choose their own books. The number of books they are introduced to increases dramatically due to the fact that parents and children read for 5 to 15 minutes, five days a week. This affords plenty of opportunity for children to expand their background knowledge and to develop their story schema. During these paired reading book interactions many of the activities suggested earlier for enhancing comprehension are evident.

First, parents are required to discuss with the child the title and the pictures of a book prior to reading. They are also asked to pose questions in order to elicit from the children, predictions of what might happen in the story. In this way parents are involving children in prereading activities.

Second, during paired reading parents are instructed to stop at appropriate pages or sections and ask the child to predict what might happen next in the story. This is exactly the same as the directed reading thinking activity referred to earlier as a means of enhancing comprehension. In this way children are encouraged to utilize their background knowledge and story schema in bringing meaning to the printed page and in confirming or rejecting predictions. This reading for meaning is one of the key features of the paired reading technique.

Third, paired reading parents are requested to engage children in postreading activities. Parents are shown how to involve children in retelling stories by asking the WH questions (Who? What? When? Where? Why? and How?). They are also asked to use postquestioning as a technique to assess how much the children learned and/or retained from the story (Appendix D). Research has shown that book interaction such as that which takes place during paired reading significantly increases children's reading comprehension and leads to more highly developed and expanded concepts (Silvern, 1985).

Word Recognition and Word Identification

It is readily agreed that good reading comprehension will not occur without the ability to decode words. Decoding refers to the recognition or identification of words in text. Word recognition is considered to be a fast, almost semiconscious instantaneous decoding process whereas word identification refers to the use of context clues, phonics, morphemic analysis, or syllabic analysis combined with phonics to identify previously unrecognizable words and, as such, it is a much slower, conscious decoding process. Word recognition and word identification abilities appear to be the major difference between good and poor readers (Adams & Huggins, 1983). Efficient comprehension depends on having a vast store of words that are recognized instantly because if readers spend too much time in word

identification considerable meaning is usually lost.

A key concept in building sight vocabulary (word recognition) is repetition. Continued exposure to print is thought to help the reader distinguish the unique visual characteristics of words (Arnold & Miller, 1980). Learning to decode print has been likened by Goodman (1973) to learning to decode aural language. Children learn to decode meaning from aural input by using the phonemic and grammatical structures of the language through repeated exposure to speech. Similarily, it is believed that reading introduces readers to oral sequences and patterns which are represented by graphic sequences and patterns. In decoding written input, the reader finds that graphic sequences correspond to patterns of oral utterances and that there are common grammatical patterns in written language which have been termed the redundancies of language (Goodman, 1973; Smith, 1982). When children have acquired the ability to use this redundancy in language, they have acquired cues about the features that distinguish words. As they continue to meet words in a variety of contexts, association and recognition become automatic, that is, the words become part of the reader's sight vocabulary (Arnold & Miller, 1980).

Word identification is equally as important as word recognition if a reader is to successfully comprehend text. For the purpose of this study word identification will be considered as mediated word recognition (Smith, 1982) or the ability to identify words using contextual, phonetic and/or structural analysis. Readers use this strategy when words cannot be recognized immediately. While a great deal of help is often available from the context in which the unknown word is found, at times the context is not sufficient to enable a reader to identify the word. When this happens, the reader needs to use visual cues such as the spelling of words and their parts to search for the identity of the unknown word (Pearson & Johnson, 1978). When fluent readers come to a word that they do not recognize, they tend to use one or more of the following strategies. First, they might simply skip the

word because they know that it is not necessary to identify every word in order to comprehend text. Second, they might guess what the word might be by using the context of the surrounding known words. Third, they might try to figure out the word from the spelling, trying to gather meaning from what is known about similiar looking words. For example, because the word happy is known, children should recognize and know the meaning of happiness. It is important that children be able to use these strategies rather than relying solely on decoding by phonics because phonics provides only approximations to the identification of words. If a reader however, has made a guess at the unfamiliar word, phonics can be used to eliminate the remaining uncertainty (Smith, 1982). For example, if a reader has reduced his alternatives to horse, mule, or donkey in the sentence "The farmer walked his _____ to the barn" then the use of phonics to identify the beginning sound would greatly reduce the uncertainty of the unknown word.

Teachers and researchers alike know that children learn to read by reading. The more words they can recognize the easier they will be able to utilize contextual clues, phonic correspondence and structural analysis. However, when a child is confronted by text where many words are unfamiliar (not enough sight words to enable the use of word identification strategies) it is best for a competent reader to simply read the text for the child. Repeated exposure to print seems to be the key to developing word recognition and word identification skills (Eldredge, 1988; Goodman, 1973; Smith, 1982).

Enhancing Word Recognition and Word Identification Skills

Since fluent and experienced readers demonstrate a variety of guessing or hypothesizing strategies which enables them to decode rapidly and efficiently, many researchers feel that teaching decoding strategies to nonfluent readers will enhance word recognition and word identification and this, in turn, will lead to better comprehension. Readers must be encouraged to make use of their ability to guess

based on past experience and linguistic knowledge. Many theorists contend that word recognition and word identification in reading are based upon an interplay between the features of individual words and context clues, hence, word recognition and word identification skills should always be taught in a meaningful context (Arnold & Miller, 1980; Goodman, 1977). The question then arises as to how teachers can best teach word recognition and word identification skills.

Since the presence of meaningful context is a potent aid to word recognition and word identification, many theorists suggest that the best way to gain familiarity with words is to read and reread often. Several techniques that have been successfully used with children having decoding problems were reviewed by Eldredge (1988). These methods not only aided decoding but also led to better comprehension.

The neurological impress method was developed by Heckelman (cited in Eldredge, 1988) to impress mature reading behaviours upon students with reading disabilities. It involves unison oral reading between teacher and student whereby the teacher moves his/her finger under the words as they were read. The goal is to read as much material as possible with the belief that multiple exposure to print would lead to development of improved sight vocabulary as well as word identification skills which, in turn, would aid comprehension.

The audio tape method uses a combination of written text and audio tapes in an attempt to assist poor readers with obtaining meaning during reading. Children are required to listen to and read along with the tape while following the print with their finger. Using this method, Chomsky (1976) reported encouraging gains on several reading tests. Carbo (1976) also reported gains in word recognition, comprehension and reading attitutes. She believed that the method worked because it provided the repetitions that children needed to overcome memory deficiencies.

Dyad reading was developed by Eldredge & Butterfield (cited in Eldredge, 1988) and is a modified version of the neurological impress method. Instead of the teacher and the pupil reading together, dyad reading involves pairing children who read well with poorer readers. The children read together orally from the same book while the fluent reader points to the words. Gains in reading of nearly a year were noted for the poor readers involved in this research for a period of one school year.

Paired Reading as a Means of Enhancing Word Recognition/Word Identification

Perhaps the single most important feature of paired reading in enhancing word recognition and word identification skills is the amount of time actually spent engaged in reading. Another significant feature is the fact that children are encouraged to read it 'as though it makes sense'. This means that they need to make guesses at unknown words from the way they are used in context. In conjunction with this, if the child spends more than five seconds attempting to figure out a word from context, the parent tells the child the word. This is done to alleviate frustration and to prevent loss of meaning of what was previously read (Topping, 1987b). There is no issue made over errors; rather, praise is given for good attempts.

It is a readily accepted belief that modelling a more proficient reader can improve the reading skills of poor or beginning readers (Neville, 1968, 1975; Smith, 1979). During paired reading children are modelling the mature reading of a parent which is a similiar situation to the neurological impress method, the audio tapes method and dyad reading mentioned earlier. The paired reading technique, then, has at least three features which makes it a viable means of improving children's word recognition and word identification skills. The technique complies with Smith's (1978b) psycholinguistic view of reading that a child can best discover what a word is by: (a) using contextual clues; (b) listening to someone else read

the word; and/or, (c) asking someone the word.

Meaning Vocabulary Acquisiton

Researchers have established a strong link between vocabulary knowledge and comprehension. It seems that a child who has a good knowledge of meaning vocabulary has more flexibility and precision with language which results in better comprehension of text (Anderson & Freebody, 1981; Herman & Dole, 1988; Pearson & Johnson, 1978). Teachers, however, often misjudge the extent of a child's meaning vocabulary because they tend to think that if a child pronounces a word correctly the meaning of the word is also known. This is not always the case. Children can decode words through word analysis skills and still not know their meanings. It seems that while it is true students can learn word meanings from context, teachers must not assume this will happen automatically since some children may lack the prior knowledge about the subject which would enable them to predict unknown words. In addition, they may not know how to use the knowledge they do have. Before children are presented with unfamiliar text, teachers may need to discuss with children the vocabulary which they may find difficult and/or the subject content of the material. In this way the children's background knowledge about the subject matter may be developed. This in turn enables children to utilize any schema they may have concerning the subject matter which enhances their ability to predict words from context.

The two most widely used instructional methods for increasing meaning vocabulary are teaching the meanings of individual words and teaching the skills involved in deriving word meanings from context (Herman & Dole, 1988; Jenkins, Matlock & Slocum, 1989; Stahl, 1983). The definitional method involves teaching dictionary definitions or the relationship of a word to other words. The contextual method involves the teaching of a core concept and how this concept is realized in different linguistic contexts (Stahl, 1983). It is thought that when the concept is

known, learning a word simply requires learning an association between the word and the concept. If the concept is unknown, it must be developed before children can assimilate the corresponding word into their vocabularies. For example, grade two children would likely know the concept of 'saving' and be able to identify the word but are unlikely to understand the concept of 'thrifty' or be able to identify the word. In an instance such as this, the teacher may need to spend some time discussing with the children the similarity between the two words. They may also need practice using the words in different contexts. These activities should result in children acquiring a better understanding of the new word 'thrifty'. The research literature suggests that a combination of the above two methods of vocabulary instruction would produce the best results. The job of the teacher and/or tutor in instructing children in meaning vocabulary is then twofold. First, children need to develop an expectation that many words could have more than one meaning. Second, they need to know how to use context to determine the appropriate meaning. For example, the word 'fair' means something completely different in each of the following contexts.

1. I saw clowns and acrobats at the fair.

2. That girl has fair skin.

3. It is not fair to cheat on a test.

In order to teach children how to use context to derive the appropriate meaning the teacher may do one or both of the following. First, children could be shown how the unknown word could be replaced by a synonym. For example, in the first sentence 'fair' could be replaced by 'circus', in the second sentence 'fair' could be replaced by 'light' or 'pale' and in the third sentence 'fair' could be replaced by 'right'. Second, children may be shown how to use the function of the word in a sentence. For example, in the first sentence the last word has to be a noun because

the preceding words dictate that the word will tell where the clowns and acrobats were seen.

Recent research on the growth of meaning vocabulary shows that children between grades 3 and 12 increase their vocabularies at a rate of about 3,000 words each year (Nagy & Herman, cited in White, Power & White, 1989). Only a small portion of this growth, however, can be attributed to direct instruction of particular word meanings. It has been estimated by Jenkins, Matlock and Slocum (1989) that it takes between 14 and 26 minutes per word for children to acquire vocabulary by direct instruction. At this rate, if a teacher devoted 30 minutes each day instructing individual word meanings, children would learn less than 300 words each school year. Therefore, a large scale vocabulary program for teaching word meanings is usually impractical because of the amount of time involved. A greater portion of meanings learned can be attributed to the fact that children learn word meanings from context (Herman & Dole, 1988).

Another explanation for this vocabulary growth has been offered by Wysocki and Jenkins (cited in White, Power & White, 1989) who believe that children learn many word meanings through morphological generalization. For example, a child who knows the meaning of "happy" may also be able to understand "happiness", "unhappy" and "happily" provided they have some prior understanding of the prefix 'un' and the suffixes 'ness' and 'ly'.

Many other researchers maintain that much of a child's meaning vocabulary is gained from reading and hearing the language of literature rather than from contrived exercises in vocabulary development. Literature offers a variety of experiences and vocabulary that will not only lead children to the pleasures to be gained from reading but also to a broader and richer understanding of word meanings. In a study by Cohen (1968), 285 second grade children who were exposed to the reading of fifty books by their teacher made a marked increase in word

knowledge, quality of written vocabulary, and reading comprehension over a control group who did not have books read to them. Two experiments by classroom teachers in New Zealand, who read stories aloud to elementary school children to measure the extent of new vocabulary acquisition from listening to the stories, yielded interesting results. Children who received no teacher explanation of word meanings made gains of 15 percent on tests of vocabulary while children who received teacher help with word meanings made gains of 40 percent on these same tests. These findings lead to two conclusions: (a) children do learn new vocabulary incidentally from listening to stories read to them; and, (b) children who receive teacher explanations of unknown words more than double the gains in vocabulary acquisition made by children who received no explanation of word meanings from the teacher (Elley, 1989). Reading aloud to and with children promotes considerable discussion about pictures, word meanings and story development, all of which leads to better understanding.

Repeated exposure to the same words in different contexts seems to be another major source of vocabulary acquisition. In an experiment involving 57 eighth graders, it was found that words were learned best through context if there was more than a single exposure to the word either in the same or different context (Nagy, Herman & Anderson, 1985). It seems that the more a child meets words and sees how they are used in sentences and paragraphs, the better that child will come to know and understand the words.

Enhancing Vocabulary Acquisition

It appears that children learn new words by both direct instruction and through reading and hearing words in context. Teachers who want to expand the overall vocabulary growth of students could develop an intensive vocabulary program which should include teaching students through direct vocabulary instruction, teaching students to derive meanings from context, maximizing the use of

story reading to children and encouraging them to engage regularly in independent reading.

Some educators believe that comprehension of text is sometimes impossible because children are not familiar with the meaning of some of the vocabulary used by the author (Tierney & Cunningham, 1984). In order to overcome this problem is it may be necessary to engage children in a discussion of difficult or ambiguous word meanings prior to or during reading. This could be done by showing children how the use of a dictionary or children's thesaurus would help them find synonyms for these difficult or ambiguous words. Discussion of such word meanings then enables children to bring their newly acquired knowledge to the text in order to understand more fully. It also makes the link for children between what is known and what was unknown. In this way children can also bring their prior knowledge and experiences to help them understand new material. With this link made, children are better prepared to use prediction and self-correction strategies while reading.

Vocabulary Acquisition Through Paired Reading

Although no studies are available which have dealt with the effects of paired reading on vocabulary acquisition, a positive correlation exists between vocabulary growth and the amount of time spent engaged in reading (Beck, McKeown & McCaslin, 1983; Kingston, 1965). At least four factors are involved in this correlation: (a) reading aloud to children; (b) using context to figure out unknown words during reading; (c) amount of time engaged in reading; and (d) repeated exposure to words through reading different kinds of printed material.

By its very design, the paired reading technique meets all of these criteria. During paired reading children are either reading aloud in synchrony with a parent or reading aloud alone. While reading, children are encouraged to make use of the context of unknown words in order to figure out their meaning. This is done

by asking the children to try to think of a word that begins like the unknown word and makes sense in the sentence. The paired reading technique suggests that during the reading of a text, parents should explain quickly the meaning of a word the child does not understand and discuss it further after the reading is finished. Before and/or after reading they also discuss and explore the meanings of unknown or unusual words with their parents by using a dictionary or children's thesaurus to find synonyms for words which the children find difficult to understand. This activity is not recommended during reading for fear that too long a break from the reading activity will result in loss of meaning of the passage. The amount of time engaged in reading during the paired reading exercise is 5 to 15 minutes (longer if the child desires) five days per week, which increases the amount of time devoted to reading for most children. This is an important aspect of paired reading since research has shown that probably the best predictor of reading comprehension, vocabulary size and gains in reading achievement is the amount of time actually spent engaged in reading (Anderson, Hiebert, Scott & Wilkinson, 1985). It is believed that the majority of word meanings acquired by children are learned incidentally while reading. If the amount of time spent reading increases as a result of paired reading then it follows that there should be an increase noted in vocabulary knowledge.

Another major source of vocabulary acquisition is repeated exposure to the same words in different contexts (Nagy, et al. 1985). With paired reading, children are encouraged to choose their own reading material for their own interest. This freedom of choice broadens the child's exposure to words in different situations since their reading material can come from any source and can be at any level of difficulty.

Other Factors Affecting Reading Performance

Factors other than the amount of help parents give affect the reading perfor-

mance of children. Two factors, sex and age of entrance to school, were examined for the purposes of this study.

Sex

Girls in the primary and elementary grades usually demonstrate academic superiority over boys of the same age especially in areas related to reading and language (Finn, Dulberg & Reis, 1979; Maccoby, 1976). Many educators and researchers attribute this female superiority to two factors. First, physiologically, females mature faster than males during the first years of life so logically it would be expected that females would develop various abilities earlier than males (Maccoby, 1976). Second, members of each sex are encouraged to become interested in the kinds of activities which society deems relevant to the roles they are expected to fill in future life (Lips & Colwill, 1978; Maccoby, 1976; Whiting & Edwards, 1973). Furthermore, society encourages sex-typed behaviour such as agression in boys and conformity-passivity in girls. A study by Whiting and Edwards (1973) showed that many of the sex differences between males and females result partly because of socialization pressure in the form of task assignment. Girls received more pressure to care for infants, to be obedient, and to be responsible while boys received more pressure to achieve and to be self-reliant. This practice may explain the difference noted in how males and females attain their goals in life. From the research literature, it appears that both males and females set attainment goals but the particular areas in which they direct their efforts are directed and determined by cultural sex roles. Typically, girls are expected to be good at reading, spelling and writing while boys are expected to be good at math and the sciences.

Society also encourages children to model the same sex. One reason for female superiority in reading in the elementary schools of North America is the fact that most teachers are female (Finn, Dulberg & Reis, 1979). In countries such as England, Nigeria and West Germany the opposite is true. Most elementary

teachers are male and boys in these countries are superior in reading.

Research literature suggests that both teachers and parents expect girls to do better than boys in the elementary grades especially in the areas of reading and language. Furthermore, there appears to be a positive correlation between parents' and teachers' expectations for children's achievement and their actual achievement (Parsons, Adler & Kaczala, 1982). It follows, then, that parents and teachers will have a great influence on the academic success of children. While the developmental origins of sex differences remains unclear, it appears that parents and teachers, because of their different expectations for males and females, play a major role in reinforcing, if not correcting, these sex differences.

Age

Considerable research has been done which shows that children who are youngest in their class demonstrate a deficit in many areas of performance (Davis, Trimble & Vincent, 1980; Diamond, 1983; Shepard & Smith, 1986; and Weinstein, 1968-69). It has been suggested that although these differences in performance between younger and older pupils are clearly evident in the early grades, the mental age difference associated with a few months difference in chronological age should become less noticeable as children progress through the grades (Weinstein, 1968-69). However, Davis, Trimble & Vincent (1980) say that even up to grade eight, age of entrance into school is significantly related to reading achievement. It has also been shown that the younger pupils are inferior to their older peers in the reading related areas of vocabulary, spelling and writing in grades four, five and six (Halliwell & Stein, 1964). One reason for the differences in academic performance of these two groups seems to be a result of the failure of school programs to meet individual needs (King, 1955). Younger school entrants are often presented with tasks and situations beyond their developmental abilities and, as a result, they experience feelings of failure and frustration very early in their school careers. It

seems that upon entry to school these children differ greatly in their readiness to learn and their ability to follow directions. They are often less mature mentally, physically, socially and emotionally. This diversity in cognitive development and social maturity undoubtedly creates a teaching problem for schools (Shepard & Smith, 1986; Weinstein, 1968-69). If the age effect is to disappear (some research indicates that it does by third grade) schools have to provide programs that meet individual needs.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to provide parents with training in a structured technique which could improve their children's reading ability. If, as expected, the children make gains in reading accuracy, reading comprehension and vocabulary acquisition, the findings will have important teaching implications for students of varying reading levels in the primary school. This chapter presents the hypotheses, describes the sample, outlines the procedures used in the project and discusses the instruments used for measurement purposes.

Hypotheses

The hypotheses of the study are outgrowths of the problems posed in Chapter I and are generated and supported by the related research presented in Chapter II.

Hypothesis 1. As a result of involvement in a paired reading program, an experimental group of grade two children will make greater gains in reading comprehension than a control group.

Hypothesis 2. As a result of involvement in a paired reading program, an experimental group of grade two children will make greater gains in reading accuracy (word identification) than a control group.

Hypothesis 3. As a result of involvement in a paired reading program an experimental group of grade two children will make greater gains in vocabulary acquisition than a control group.

Because sex and age can also be factors influencing reading comprehension, word identification and vocabulary acquisition, the following hypotheses were also included.

Hypothesis 4. The grade two girls will demonstrate a superior ability in reading comprehension when compared to the grade two boys.

Hypothesis 5. The grade two girls will demonstrate a superior ability in word identification when compared to the grade two boys.

Hypothesis 6. The grade two girls will demonstrate a superior meaning vocabulary when compared to the grade two boys.

Hypothesis 7. The older grade two children will demonstrate superior ability in reading comprehension than the younger grade two children.

Hypothesis 8. The older grade two children will demonstrate superior ability in word identification than the younger grade two children.

Hypothesis 9. The older grade two children will demonstrate superior meaning vocabulary than the younger grade two children.

Sample

The study was conducted with 25 grade two students of varying reading ability. The students constituted an entire grade two classroom in a three stream primary school in the St. John's area. They were randomly assigned to either a control or an experimental group. The control group contained thirteen or 52 percent of the cases. The experimental group was comprised of twelve or 48 percent of the cases. Fourteen of the cases or 56 percent of the total sample were boys. Eleven or 44 percent of the total cases were girls. Eight or 62 percent of the control group were boys while five or 38 percent were girls. Six or 50 percent of the experimental group were boys while six or 50 percent were girls.

The 25 children ranged in age from 7 years 6 months to 8 years 7 months. The dispersion is graphically portrayed in a histogram (Figure 1). The independent variable of age was similarily distributed between the two groups. See figures 2 and 3.

Procedures

Before beginning the research, permission to conduct the study was obtained from School Board Personnel and School Administration (Appendix E). A letter was sent to parents explaining the need for the testing and asking their permission before proceeding. (Appendix F). All 25 parents signed and returned this letter signifying their consent.

An experimental design was used with 12 children in the experimental group and 13 children in the control group. Pretests were administered to all children to establish preproject reading comprehension, reading accuracy (word identification) and meaning vocabulary levels. At the end of the 16 week project, the tests were readministered. Pretest and posttest scores were compared and analyzed to

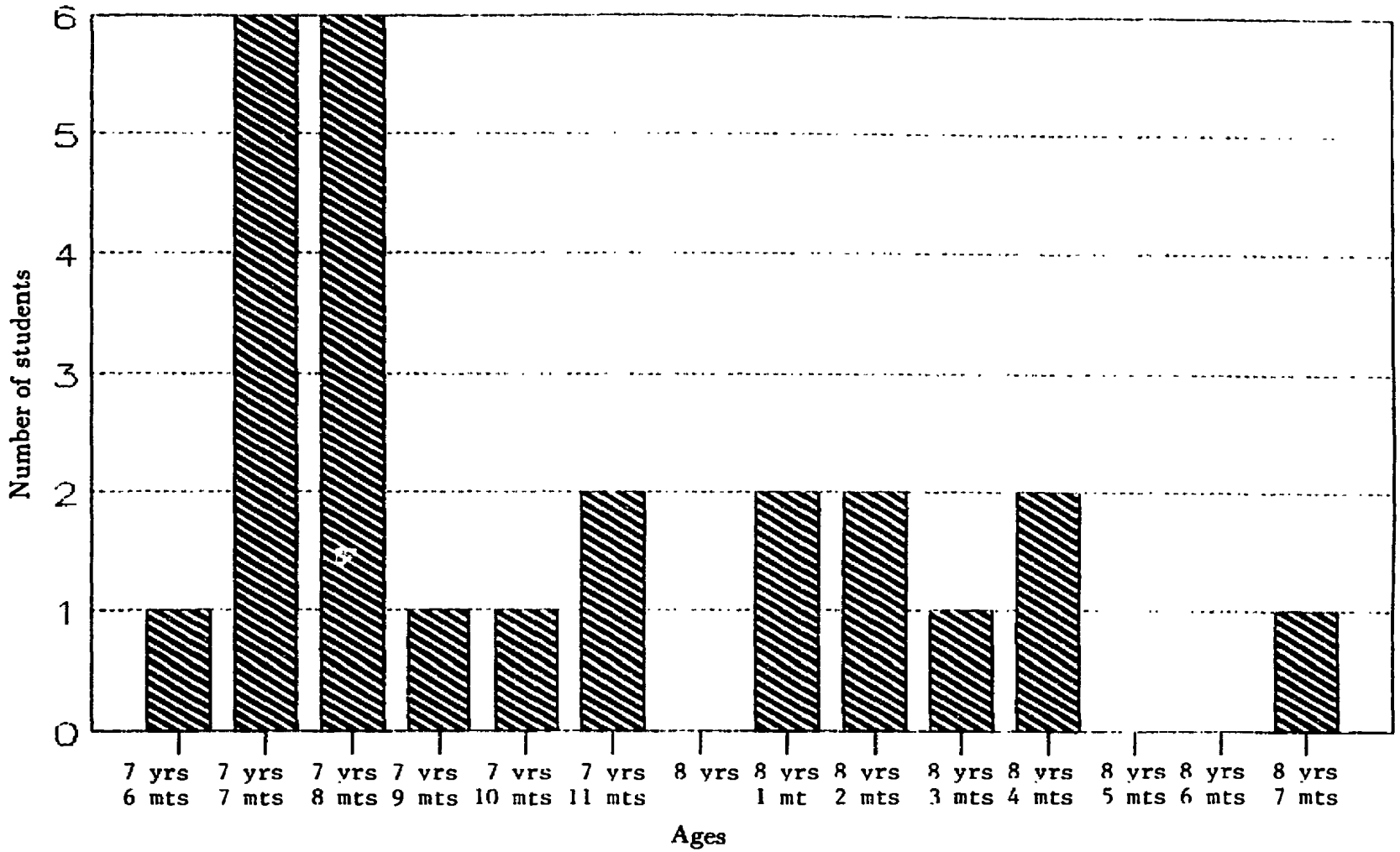

Figure 1. A histogram representing the range in ages for total sample

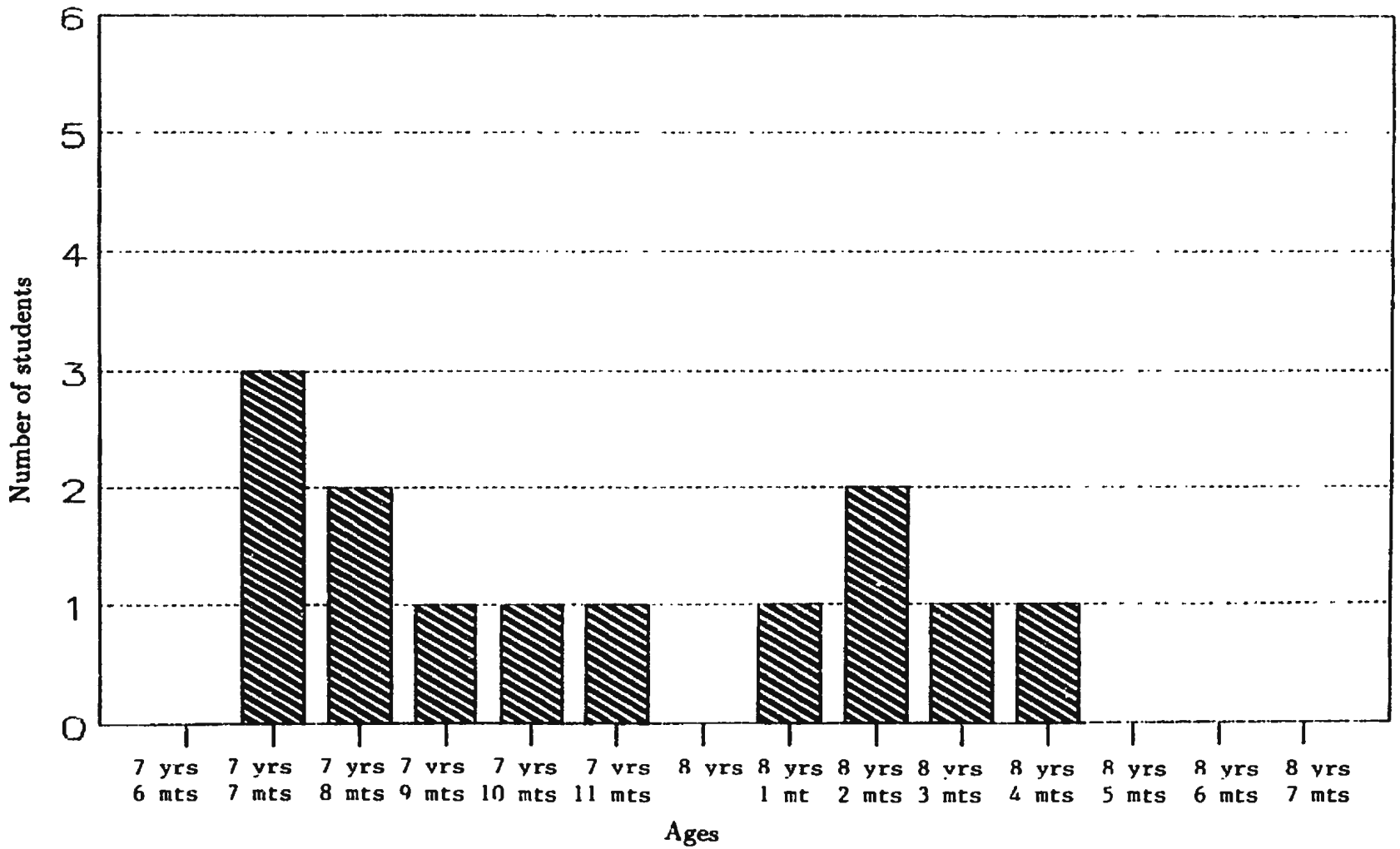

Figure 2. A histogram representing the range in ages for control group

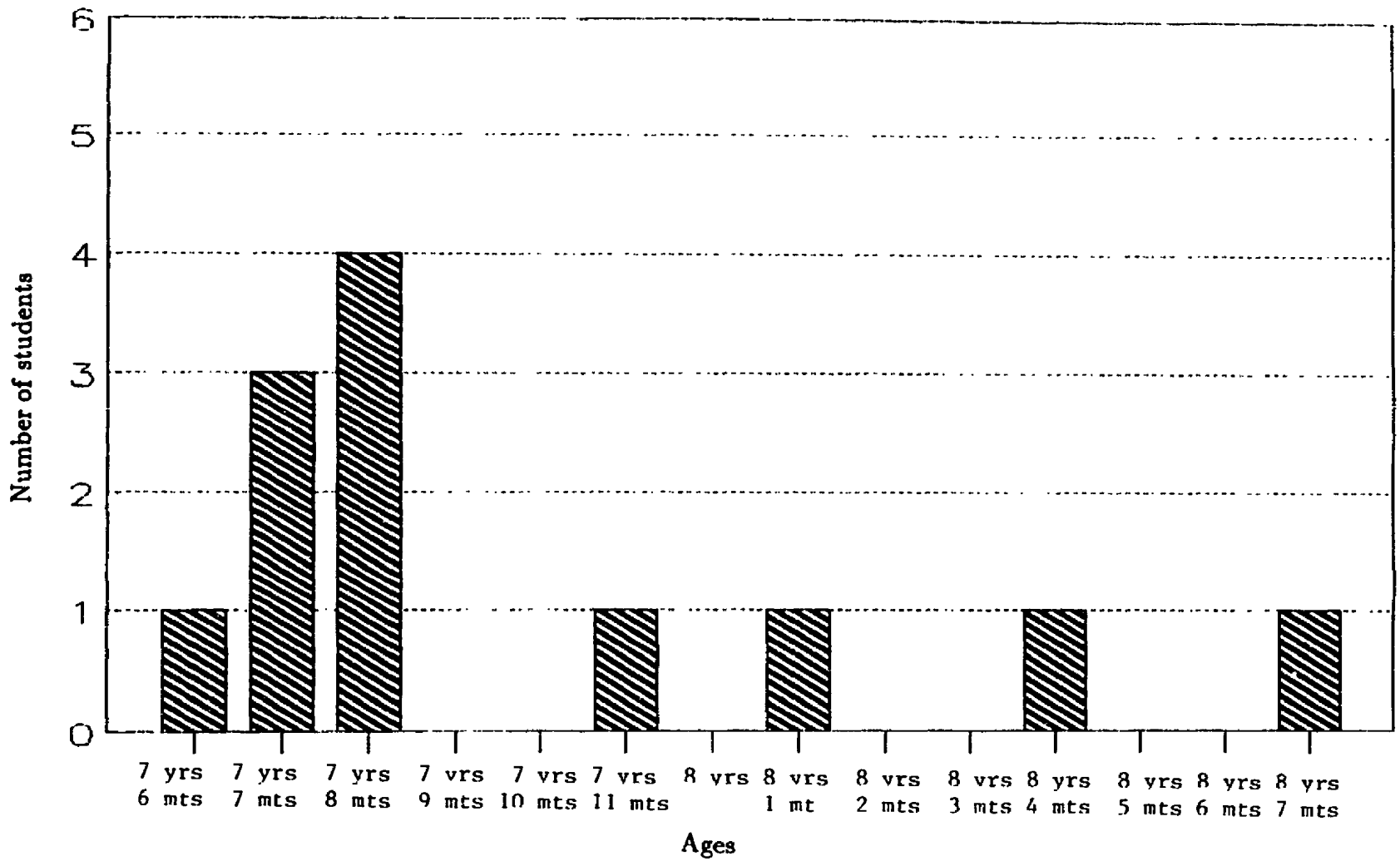

Figure 3 A histogram representing the range in ages for experimental group

confirm whether gains made by the experimental group in comprehension, word identification and vocabulary were statistically significant.

After the initial testing and the random selection of the experimental group a letter was sent to the parents of this group asking for consent for their children to be involved in the paired reading program and for their cooperation in the project (Appendix F). An initial meeting with the participating parents was then arranged before the Christmas break. At this time an overview of the project was given. Research on parental involvement in education, especially in reading, was summarized while literature and research findings on paired reading was dealt with in some detail. A brief outline of the tests to be used and the time frame involved in their administration was also given. Time was provided for parents to voice any concerns or to ask any questions related to the project. A pamphlet entitled "Paired Reading: How To Do It" (Appendix C) was distributed for parents to study at home. This pamphlet was an exact copy of materials received from Topping (1984b) and outlined the benefits of paired reading, briefly described the procedure and discussed what was needed in order to start paired reading at home. Parents were asked to contact the researcher with any questions that might arise concerning this literature. A date was set for the next meeting early in January at which time children attended with their parents.

Prior to the January meeting, arrangements were made with the school librarian to have a supply of about 100 books of varied interest and reading levels ranging from grade 1 to grade 5 in a designated area in the school. Throughout the project children were able to come to this area as often as desired to select a book to use during the upcoming paired reading practice. Although the paired reading procedure recommends that children choose their own reading materials free of any restrictions, it was felt that for this study a preselection of books was necessary to ensure that the children were being exposed to quality literature.

Children were not limited to these preselected books, however. They were free to also choose books from the school library as well as from public libraries.

The January meeting was an initial training session for parents and children. The paired reading technique was explained and demonstrated to parents and children with the aid of the paired reading video which was part of a paired reading training pack received from Topping (1984b). The video consists of a sequence of demonstrations of a parent and a child reading together. The sequences are of progressively older and more competent readers, thus, it was necessary to preselect appropriate frames for the target group of parents and children. The video begins with three adults role playing mother, father and daughter at home. It shows a number of problems that can occur when schools ask parents to listen to their children read at home without providing clear guidelines. Following the role-play, the problems shown were discussed. The video then continued with different parents and children demonstrating the proper way to do paired reading. Since some examples were better presented than others, a preselection of the age appropriate situations was done. After viewing the video, time was provided for any questions parents or children had. Parents and children then retired to quiet corners to practice paired reading. During this time the researcher circulated among the groups to check practice behaviour, redirect faulty practice, and praise the good practices. Before the meeting adjourned, a discussion was directed towards exactly what was expected of the parents for the duration of the project. Parents were reminded of the two basic steps involved in paired reading. These include simultaneous reading (reading together) and independent reading (reading alone) which were outlined in detail for parents in the pamphlet that was distributed at the end of the first meeting (Appendix C).

During the first stage (simultaneous reading) parents were instructed to begin reading with the child in synchrony but letting the child set the pace. The

parent was to ensure that the child read every word correctly by having the child reread a mispronounced word or repeat an unknown word after the parent supplied it. This synchronous reading continued until the child issued a prearranged non-verbal signal such as knocking on the book. Upon receiving this signal the parent was to stop reading and listen to the child read independently. If the child encountered a difficult word or mispronounced a word, parents were to wait 5 seconds to see if the child could figure out the word. When the child was unsuccessful, the parent supplied the word, then had the child repeat it. The pair then reverted to the first stage of simultaneous reading. This continued until the child again issued the signal to read alone. Parents were instructed to follow these procedures for the basic steps of paired reading for 5 to 15 minutes five nights per week. They were also required to talk about the books and pictures, ask the child to predict what might happen next and to confirm predictions as the story progressed. Instructions were also given to discuss the meanings of difficult or unusual words with the child and/or to encourage the child to gather the meaning from context. During both stages of paired reading, parents were asked to be positive towards the child's attempts and to give special praise for the self-correction of errors, for the reading of unfamiliar or complex words, for making logical predictions and for gathering the meaning of unfamiliar words from context.

For the duration of the project, parents and children together were required to complete a home record sheet together for each paired reading session (Appendix H). This sheet is a copy of the one included in the paired reading training pack (Topping, 1984b) but for the purpose of this study it was enlarged to a full size 8 1/2″ x 11″ page. The home record sheet was returned to the researcher when completed and another was sent home. As a result, everyone involved was able to keep a record of the amount and variety of reading that was taking place. Parents were also required to tape record two sessions for the first two weeks

and one session per week thereafter. These tapes were returned to the researcher and were examined to ensure that the paired reading sessions were being done as outlined. Letters were then sent to the parents with words of encouragement and, if necessary, advice on how to improve the paired reading sessions. It was felt that these requirements were necessary in order to adequately monitor progress and to ensure that the paired reading encounter was conducted according to the procedures outlined in Chapter Two and in the pamphlet (Appendix C).

A third meeting of parents was held at the end of the first week of the project. At this time parents came prepared to share and discuss the problems and/or successes they had experienced. It appeared from this meeting and from the tapes already received that parents felt comfortable with the paired reading procedure and thought that no further group meetings or training sessions were necessary. It was decided, instead, that phone calls offering individual help would be made to parents who demonstrated problems with the taped sessions. Some of the parents were contacted twice by phone as a result of this decision.

For this project, the control group did not realize that they were involved in an experiment. Parents of the control group were given no further information than what was provided in the letter (Appendix F). It was assumed that the control and experimental children would continue to receive the help that parents routinely give with homework. Both control and experimental groups received regular classroom instruction in reading throughout the project. The classroom teacher was instructed not to discuss this project with the children.

At the end of the project, parents and children were asked to complete the questionnaires provided in Appendix A and Appendix B which enabled the formulation of some judgments concerning the value and success of the project. The questions related to how parents and children felt about the paired reading program, whether they felt it was successful in improving the children's reading,

whether they would continue paired reading after the project ended, and whether it was worthwhile telling others about. The data gathered in this informal evaluation not only served to judge the success of this project but would enable the formation of a better project another time.

Instruments

Gates-MacGinitie Reading Test

This group administered test (MacGinitie, 1980) is designed to test vocabulary knowledge and paragraph comprehension. For the purpose of this study only the comprehension subtest was used. This part of the test involved reading a passage and choosing a picture, from a choice of four, that illustrated the passage or answered a question about the passage. The first passages are simple sentences. As the test progresses, the passages increase in difficulty. Children are shown how to do two practice items. They then begin at item one and proceed through the test at their own speed until the time limit of 35 minutes has passed. The Gates-MacGinitie Reading Tests have different levels which correspond to each grade level. Two forms are provided at each grade level to allow for pre and posttesting. Level B of the test is designed for grade two. For this study the alternate forms one and two of level B were used.

The raw score is obtained by counting the number of correct items. Tables are provided in the test manual to convert the raw score to stanines, T-scores, percentile ranks, grade equivalents and extended scale scores. For the purpose of this study only the raw scores were recorded.

Slosson Oral Reading Test

This individually administered graded list of isolated words (Slosson, 1963) is designed to measure a child's level of word recognition. The first list (List P) is considered the primer level and is recommended for the first few months of grade

one. List 1 is for the remainder of grade one, while list 2 is for second grade. Each list corresponds to each school grade until one reaches the last list which is recommended for grades nine to twelve. For the purpose of this research, the lists were enlarged, placed on cards and presented to the children one list at a time. Children are started at a list where it is expected they are able to pronounce all 20 words in that list correctly. If the chosen starting list is too difficult and a child makes even one mistake, the examiner must go back until a list is reached in which all 20 words are correctly pronounced. The test continues until a child encounters a list in which he is unable to pronounce any words. Each omitted or mispronounced word is considered an error. Children are given no more than 5 seconds to respond to each word. To compute the raw score the total number of words pronounced correctly are added. This total is then combined with the words below the starting list for which a child automatically receives credit. A conversion table is provided which changes the raw score to a reading level or grade equivalent score. For example a reading level of 2.3 is equivalent to the third month of grade two. For the purpose of this study raw scores were recorded.

Peabody Picture Vocabulary Test - Revised

This individually administered norm-referenced test of meaning vocabulary (Dunn & Dunn, 1981) contains two parallel forms, L and M, which make the test ideal for pre and posttesting. Each form contains 5 training items and 175 test items which increase in difficulty in sequence. The test is designed to measure the extent of a subject's vocabulary acquisition and can be used with subjects from 2 1/2 years to 40 years of age. Subjects are shown plates containing 4 different pictures. The examiner says the word given on the test record sheet and the subject states the number of the picture on that plate which best portrays the meaning of the word the examiner has said. Recommended starting points for subjects of average ability are coded to the left of the items' numbers on the

individual test record sheets. In order to score the test, a basal and ceiling must be established. To arrive at a basal, the examiner must begin subjects at their starting point (according to age) and work forward until subjects make the first error. If eight or more consecutive correct responses have been made, a basal has been established. Testing then continues forward until subjects make 6 errors in 8 consecutive responses. The last item presented becomes the ceiling item. If however, the chosen starting point was too high, testing must continue backwards until 8 consecutive correct responses have been made in order to establish a basal. Testing then continues forward from the point of the first error.

To compute a raw score the highest basal is used. All items below this basal are counted as correct. All errors between the ceiling and the highest basal are subtracted from the number of ceiling items. This difference constitutes the raw score. Since this test converts raw scores to age referenced norms, the examiner must calculate the individual's chronological age in order to arrive at a test score. To do this the subjects' birthdate is subtracted from the test date. The test manual provides tables which convert raw scores to standard score equivalents, percentile ranks, stanines and age equivalents. For the purposes of this study raw scores were used. Complete instructions are provided in the manual for using and scoring the test as well as for interpreting the test results.

CHAPTER IV

FINDINGS AND INTERPRETATIONS

Introduction

The purpose of this chapter is two fold. First, the results of the statistical analysis of the data collected for the study will be presented and interpreted in light of the questions posed and the experimental treatment. Second, parents' and childrens' responses to the program will be summarized using the results of questionnaires (Appendix A and B). In order to analyze the data a number of statistical procedures were used. Descriptive statistics were generated for the dependent variables of reading comprehension, word identification and meaning vocabulary as well as for the independent variables of age and sex. These produced means, standard deviations (s.d.), skewness, kurtosis and minimum (min.) and maximum (max.) scores.

Second, one way analysis of variance was used in order to determine the differences between the control group (1) and the experimental group (2) on the raw scores for reading comprehension (READ RS1), word identification (WORD RS1) and meaning vocabulary (VOCAB RS1) for the fall testing and reading comprehension (READ RS2), word identification (RS2) and meaning vocabulary (VOCAB RS2) for the spring testing. In this analysis the variability of the observations within the group and the variability between the group means were observed. This was done in order to determine whether the between-group variance was significantly greater than the within-group variance (Borg & Gall 1983).

It was necessary for the investigator to determine the relationship of the variables to each other. To do this the correlation ratio eta was used. The advantage of this correlation ratio is that it provides a more accurate index of the relationship between two variables when the relationship is markedly nonlinear (Borg & Gall, 1983).

Finally, multiple regression was carried out for the three dependent variables READ RS2, WORD RS2, and VOCAB RS2 while controlling for Group, Sex and Age. Borg & 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 case the criterion variables were the dependent variables stated above. The predictor variables used were Group, Sex and Age.

Descriptive Statistics

Means, standard deviations, kurtosis, skewness, minimum and maximum scores were calculated for the six dependent variables for the total sample of 25 students (Table 1). As can be seen, raw scores were used (RS1 and RS2). A comparison of means shows that for the spring testing the means of all the dependent variables were larger than for the previous fall testing. This indicates that both the control group and experimental group made gains in reading comprehension, word identification and meaning vocabulary. The mean for WORD RS showed the largest difference which indicates that the subjects made the greatest gains in word identification. WORD RS also showed the greatest difference in maximum and minimum scores (157 and 20 for the fall and 171 and 35 for the spring). A comparison of means by group showed that the means of the three dependent variables for the pretest were higher for the experimental group than for the control group but the difference was not significant (Table 2). For the posttest, the same pattern held true (Table 3). This time, however, one difference was significant. The experimental group made a significant gain in word identification.

Table 1

Means, Standard Deviations (S.D.), Skewness, Kurtosis, Maximum (Max.) and Minimum (Min.) Scores for Dependent Variables (N = 25)

Variables	Mean	S.D.	Skewness	Kurtosis	Max.	Min.
			Pretest Scores			
READ RS1	24.720	8.796	-.034	-1.295	37	11
WORD RS1	61.920	33.598	1.147	1.239	157	20
VOCAB RS1	91.360	10.924	.335	-.985	111	75
			Posttest Scores			
READ RS2	28.040	8.228	-.387	-.821	40	13
WORD RS2	84.400	35.683	.762	.138	171	35
VOCAB RS2	98.440	9.430	-.270	-.476	115	79

NOTE: Fall testing (Nov. 1989) = 1 Spring testing (May 1989) = 2

Table 2

Comparison of Means and Standard Deviations (S.D.) for READ RS1, WORD RS1 and VOCAB RS1 by Group

Variables	Source	Mean	S.D.	Sig.
READ RS1	Total Group	24.720	8.796	
	Control	23.308	9.393	
	Experimental	26.250	8.226	.415
WORD RS1	Total group	61.920	33.598	
	Control	52.000	25.752	
	Experimental	72.667	38.693	.127
VOCAB RS1	Total group	91.360	10.924	
	Control	90.615	11.687	
	Experimental	92.167	10.487	.740

Table 3

Comparison of Means and Standard Deviations (S.D.) for READ RS2, WORD RS2 and VOCAB RS2 by Group

Variables	Source	Mean	S.D.	Sig.
READ RS2	Total Group	28.040	8.228	
	Control	27.154	8.906	
	Experimental	29.000	7.699	.586
WORD RS2	Total group	84.400	35.683	
	Control	72.769	28.496	
	Experimental	97.000	39.485	.090
VOCAB RS2	Total group	98.440	9.430	
	Control	97.615	7.848	
	Experimental	99.333	11.187	.659

Analysis of Variance

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

Hypothesis 1. As a result of involvement in a paired reading program, an experimental group of grade two children will make greater gains in reading comprehension than a control group.

Hypothesis 2. As a result of involvement in a paired reading program, an experimental group of grade two children will make greater gains in reading accuracy (word identifcation) than a control group.

Hypothesis 3. As a result of involvement in a paired reading program, an experimental group of grade two children will make greater gains in vocabulary acquisition than a control group.

The analysis of variance for the dependent variables at pretest time indicated a .415, .127 and .731 level of significance for READ RS1, WORD RS1 and VOCAB RS1 respectively (Table 4). For each variable, the level was unacceptable at the the chosen 0.1 significance level which indicates that both groups were at an equal level of reading comprehension, word identification and meaning vocabulary at the beginning of the study.

One way analysis of variance for reading comprehension by group showed a significance level of .586 for READ RS2 (Table 5). Thus hypotheses #1 was rejected because the significance level was greater than the 0.1 level. It should also be pointed out that the relationship was not in the direction expected since

Table 4

ANOVA Results of Breakdown Analysis of READ RS1, WORD RS1 and VOCAB RS1 by Group

Dependent Variables	Source	SS	D.F.	Square	F.	Sig.	ETA	ETA^2
READ RS1	1	54.021	1	54.021	.689	.415	.171	.029
	2	1803.020	23	78.392				
WORD RS1	1	2665.200	1	2665.200	2.510	.127	.314	.098
	2	2442.600	23	1062.000				
VOCAB RS1	1	15.016	1	15.016	.121	.731	.072	.005
	2	2848.700	23	123.860				

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

Table 5

ANOVA Results of Breakdown Analysis of READ RS2, WORD RS2 and VOCAB RS2 by Group

Dependent Variables	Source	SS	D.F.	Square	F.	Sig.	ETA	ETA^2
READ RS2	1	21.268	1	21.268	.305	.586	.114	.013
	2	1603.692	23	69.726				
WORD RS2	1	3663.692	1	3663.692	3.133	.090	.346	.120
	2	2689.308	23	1169.318				
VOCAB RS2	1	18.416	1	18.416	.200	.659	.093	.009
	2	2115.744	23	91.989				

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

be pointed out that the relationship was not in the direction expected since the control group showed a mean gain of 3.84 and the experimental group showed a mean gain of 2.75.

While it is difficult to determine why the control group showed a greater mean gain in reading comprehension than the experimental group, it is spectulated that the following factors may have contributed to the results. First, the control and experimental groups for this study included both poor and extremely able readers. It is possible that the control group, which consisted of one more student than the experimental group, may have had more children who were somewhat weaker in reading comprehension at the start even though there was no statistical significant difference. Almost all of the studies into paired reading that were reviewed for this thesis were conducted with poor readers only. It may be that paired reading works best with poor readers in enhancing reading comprehension. Second, the control group parents, having heard about the research, may have been determined that their children would do just as well as the experimental group, thus spent more time reading to their children at home than the experimental group. Third, for some unknown reason the control group parents may have been more adept than the experimental group parents at formulating appropriate questions before, during and after reading. From listening to the tape recorded sessions the investigator concluded that not all of the parents of the experimental group were equally adept at formulating questions and/or leading a discussion before, during and after reading the story. Some parents involved their children in very elaborate and in-depth discussions while others simply asked "did you like that story?" or "which part did you like best?" Many parents failed to ask inferential questions despite efforts by the investigator to encourage this. According to theory, one of the best ways to enhance reading comprehension is through the use of effective questioning which would not only help children interpret the underlying mean-

ing of text but also relate what has been read to the children's own background experiences. The failure of parents to ask appropriate questions before, during and after reading may have contributed to the lack of significant improvement in comprehension for the experimental group in this study.

The analysis of variance for word identification (WORD RS2) by group (Table 5) showed a significance level of .090. This was a significant relationship at the 0.1. This level of significance, rather than the traditional .05 level, can be justified in this study for the following reasons. The 0.1 level is an acceptable cut off for exploratory studies such as this (Borg & Gall, 1983). Furthermore, with small samples it is difficult to obtain high significance levels (Borg & Gall, 1983; Finn & Dulberg, 1985; Peaker, 1985). Hypothesis #2 was accepted which indicates that the experimental group made greater gains in word identification as a result of the treatment.

The results for word identification may be due to the way in which parents helped their children with difficult words. From listening to the recorded sessions it was clear that all but one parent quickly learned and effectively used the correction procedure for the paired reading technique. Proper use of the procedure was important in order for children to enhance their word recognition skills. The technique used with paired reading provided children with a proficient reading model (the parent) and it encouraged them to attempt to guess difficult words from context. In addition, children were not left to struggle with unknown words to the point of losing meaning or reading word-by-word. Theory supports the notion that these are some of the best ways to improve word recognition and word identification skills. Furthermore, the almost immediate feedback provided by the parent enabled children to read more interesting and challenging material which in turn probably maintained the interest of the children. This higher interest in reading, coupled with the increase in the amount of reading being done, probably

contributed to the significant gains in word identification. The direct relationship between the amount of time spent reading and the increase in word identification and word recognition skills has also been supported by theory.

One way analysis of variance for meaning vocabulary by group showed a significance level of .659 for VOCAB RS2 (see Table 5). Hypothesis #3 was also rejected because the significance level was greater than the 0.1 level. It should be noted, though, that the relationship was in the hypothesized direction. Failure of the experimental group to show significant gains in meaning vocabulary may be attributed to the fact that not all parents followed the instructions given for discussing the meaning of difficult or unusual words encountered in the text. Theory suggests that discussion of word meanings encountered in text is one way to increase the meaning vocabulary of children. The taped sessions indicated that only six of the parents discussed word meanings with their children and only three of those six encouraged the use of a dictionary to verify meanings gathered from context. Theory also states that probably the best predictor of increases in meaning vocabulary is the amount of time engaged in reading. It is possible that the project duration of 16 weeks was not long enough to note any significant improvement in the meaning vocabulary of the children involved.

Eta Coefficients

In order for the investigator to confirm the analysis of variance and to further determine the relationship of the dependent variables to the group, the correlation ratio eta was used (See Tables 4 and 5). Eta, being the equivalent of a correlation coefficient, can be interpreted in the same manner and is:

> appropriate for data in which the dependent variable is measured on an interval scale and the independent variable on a nominal or ordinal scale. When squared, eta can be interpreted as the proportion of the total variability in the dependent variable that can be accounted for by knowing the values of the independent variable (Norusis, 1982, p. 33).

The moderately high eta coefficients between WORD RS1 and Group (.314) and WORD RS2 and Group (.346) indicate a fairly strong relationship between the treatment and the dependent variable of word identification. For WORD RS1 eta is accounting for .098 (or almost 10%) of the variance while, for WORD RS2, eta is accounting for .120 (or 12%) of the variance. Thus the acceptance of hypothesis #2 is supported. The low eta coefficients for the variables of reading comprehension and meaning vocabulary indicate that the treatment had a minimal effect on these two variables. Thus, the rejection of hypotheses #1 and #3 is supported. The probable reason for this low relationship is the small sample used for the study. If the size of the sample had been larger the eta coefficient would have been higher for these variables as well as for the variable of word identification, thereby, giving significant relationships for all three dependent variables.

Multiple Regression

In order to more stringently test the first set of hypotheses in this study as well as the hypotheses related to SEX and AGE, regression techniques were used. Since regression analysis is based on a correlation matrix, the correlations for all of the variables are presented first (Table 6). The correlations between the independent variable of GROUP (experimental) and the dependent variables of READ RS1, WORD RS1, VOCAB RS1, READ RS2, WORD RS1 and VOCAB RS2 can be used to confirm the ANOVA results.

Between GROUP and READ RS1, WORD RS1 and VOCAB RS1 the correlations were .171, .314 and .072 respectively. The correlations between GROUP and READ RS2, WORD RS2 and VOCAB RS2 were .114, .346 and .093 respectively. The only significant correlation was between GROUP and WORD RS2 which was significant at .045 level. This confirmed the earlier acceptance of hypothesis two and rejection of hypotheses one and three. It should be noted, how-

Table 6

Zero Order Correlations, Significance Levels, Means, and Standard Deviations (S.D.) for the Variables in the Study (N = 25)

VARIABLES	SEX	AGE	GROUP	READ RS1	WORD RS1	VOCAB RS1	READ RS2	WORD RS2	VOCAB RS2
SEX	1.000	.169	.290	.346	.165	.334	.344	.179	.486
AGE	.200	1.000	.285	.456	.215	.277	.392	.234	.231
GROUP	.116	-.119	1.000	.208	.063	.365	.293	.045	.365
READ RS1	-.083	-.023	.171	1.000	.828	.000	.000	.000	.000
WORD RS1	-.203	-.165	.314	.000	1.000	.000	.000	.000	.001
VOCAB RS1	-.090	-.124	.072	.779	.644	1.000	.000	.000	.000
READ RS2	-.084	.058	.114	.901	.741	.806	1.000	.802	.000
WORD RS2	-.192	-.152	.346	.848	.982	.713	.000	1.000	.000
VOCAB RS2	-.007	.154	.093	.641	.598	.765	.698	.649	1.000
MEAN	1.440	94.280	1.480	24.720	61.920	91.360	28.040	84.400	98.840
S.D.	.507	3.669	5.10	8.796	33.598	10.924	8.228	35.683	9.430

NOTE: Correlation coefficients below the diagonal; significant levels above the diagonal;
P values $\leq$ .10 are statistically significant.

ever, that while the correlations between GROUP and READ RS2 and VOCAB RS2 are not statistically significant, the experimental group did make greater gains in vocabulary than the control group as shown by the means for this variable. Had the study been carried out for a longer period, the means would most likely have been greater as well as significant.

Educators seem to agree that many factors other than the type of treatment (or curriculum) may affect a child's progress in reading comprehension, word identification and meaning vocabulary acquisition. In this study the relationship between treatment effects and the three dependent variables were examined while controlling for the effects of sex and age. In the data analysis, 1 represented males and 2 represented females. Age was scored in months with a range of 7 years 6 months to 8 years 7 months. Since SEX and AGE were used as independent variables for this study, the following hypotheses were formulated.

Hypothesis 4. The grade two girl will demonstrate a superior ability in reading comprehension when compared to the grade two boys.

Hypothesis 5. The grade two girls involved will demonstrate a superior ability in word identification when compared to the grade two boys.

Hypothesis 6. The grade two girls will demonstrate a superior meaning vocabulary when compared to the grade two boys involved.

Hypothesis 7. The older grade two children will demonstrate a superior ability in reading comprehension than the younger grade two children.

Hypothesis 8. The older grade two children will demonstrate a superior ability in word identification than the younger grade two children.

Hypothesis 9. The older grade two children will demonstrate a superior meaning vocabulary than the younger grade two children.

The correlations between the independent variable SEX and the dependent variables were as follows (Table 6). Between SEX and READ RS1 the correlation -.083 showed a significance level of .346. The correlation of -.203 between SEX and WORD RS1 showed a significance level of .165. Between SEX and VOCAB RS1 the correlation -.090 showed a significance level of .334. The correlation between SEX and READ RS2 was -.084 with a significance level of .344. The correlation between SEX and WORD RS2 was -.192 with a significance level of .179. The correlation between SEX and VOCAB RS2 was -.007 with a significance level of .486. These unacceptably low relationships at the .10 level of significance lead to a rejection of hypotheses 4, 5, and 6. The independent variable SEX had no significant relationship to the children's reading comprehension, word identification and vocabulary knowledge at pretest or posttest time. It should be noted that whilst none of the relationships were significant, the relationships were in favor of boys rather than girls which is the exact opposite of what the literature reveals. This can be seen in the negative correlation coefficients for all relationships. When boys are scored 1 and girls are scored 2, a negative correlation indicates that the relationship is in favor of the boys while a positive correlation would indicate a relationship in favor of girls.

The correlations between the independent variable of AGE and the dependent variables were as follows. The correlation between AGE and READ RS1, WORD RS1 and VOCAB RS1 were -.023, -.165 and -.124 respectively with respective significance levels of .456, .215 and .277. None of these relationships

were significant at the chosen .10 level. The correlation between AGE and READ RS2, WORD RS2 and VOCAB RS2 were .058, -.152 and .154 respectively with significance levels of .392, .234 and .231. Again, none of the relationships were significant. This lead to the rejection of hypotheses 7, 8, and 9. The independent variable AGE had no significant relationship to the children's reading comprehension, word identification and vocabulary knowledge at pretest or posttest time.

The correlation coefficients between the independent variables and the dependent variables do not support the theory of the relationships between sex and age and the reading performance of children. There are several factors that may have determined these results. First, it is possible that the males in this study have caught up to the females in physiological development. Second, parental expectations for this small sample of children may be no different for males than for females. Third, sex-typed role models may not be an important factor in the lives of these children given the present day changing attitudes towards traditional male/female roles. Fourth, the effects of age may be disappearing earlier than usual because of the special programming provided in kindergarten and grade one for the weaker (usually the younger) students in this school.

An examination of the effects of the treatment variable on reading comprehension, word identification and meaning vocabulary was done while placing statistical controls on the independent variables of GROUP, SEX and AGE. A multiple regression equation was generated for each of the three dependent variables (READ RS2, WORD RS2, VOCAB RS2).

The first multiple regression equation was used to determine the effects of treatment on READ RS2 while controlling statistically for SEX and AGE (Table 7). The relationship between GROUP and READ RS2 was not statistically significant. The t-value of .641 was significant at a .528 level with a coefficient of .140. The rejection of hypothesis number one concerning the relationship between

Table 7

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, T-Values, and Significance Levels for READ RS2

Dependent Variable READ RS2

Independent Variables	B	SE(B)	Beta	t-value	P
GROUP	2.261	3.527	.140	.641	.528
SEX	-.195	3.597	-.120	-.543	.593
AGE	.221	.497	.098	.444	.662

Mult R = .178

R^2 = .032

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

treatment and reading comprehension was supported.

The relationship between SEX and READ RS2 was a very weak one with a t-value of -.543 and a beta coefficient of -.120. It was not significant. This reconfirmed the earlier rejection of hypothesis number four regarding the relationship between SEX and reading comprehension. The third relationship in this model was between AGE and READ RS2 and was not statistically significant. Table 7 shows a t-value of .444, a beta coefficient of .098 and a significance level of .665. which is unacceptably high. Therefore, hypothesis number seven, which stated a positive significant relationship between AGE and READ RS2, was rejected.

The second equation dealt with the effects of treatment on WORD RS2 while controlling for GROUP, SEX and AGE. Table 8 shows the estimates for this equation. The relationship between GROUP and WORD RS2 is a fairly strong one with a beta coeffieient of .346. Table 8 shows that the t-value of 1.810 is significant at the .085 level. The earlier acceptance of hypothesis number one concerning the relationship between treatment and word identification was supported.

The relationship between SEX and WORD RS2 was not significant. Table 8 shows that the t-value of -1.087 is significant at the .289 level with a beta coefficient of -.222. This significance level is unacceptably high and hypothesis number five, stating a positive significant relationship between SEX and word identification, was rejected.

The third relationship in this multiple regression equation was between AGE and WORD RS2. Table 8 shows that the t-value of -.315 is significant at the .756 level with a beta coefficient of -.064. Hypothesis number eight, stating an expected significant relationship between AGE and WORD RS2, was rejected.

The third multiple regression equation was generated to deal with the effects of treatment on VOCAB RS2 while controlling for SEX and AGE. Table 9 gives the estimates for this equation. The relationship between GROUP and VOCAB RS2

Table 8

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, T-Values, and Significance Levels for WORD RS2

Dependent Variable WORD RS2

Independent Variables	B	SE(B)	Beta	t-value	P
GROUP	25.496	14.087	.364	1.810	.085
SEX	-15.614	14.367	-.222	1.087	.289
AGE	-.625	1.985	-.064	-.315	.756

Mult R = .178

R^2 = .032

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

Table 9

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, T-Values, and Significance Levels for VOCAB RS2

Dependent Variable VOCAB RS2

Independent Variables	B	SE(B)	Beta	t-value	P
GROUP	2.239	4.026	.121	.556	.584
SEX	-1.068	4.106	-.057	-.260	.797
AGE	.463	.567	.180	.816	.424

Mult R = .178

R^2 = .032

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

was a weak one since the t-value of .556 was significant at a .584 level and the beta coefficient was .121. The earlier rejection of hypothesis number three concerning the relationship between treatment and meaning vocabulary was supported.

The relationship between SEX and VOCAB RS2 was not significant. Table 9 demonstrates that the t-value of -.260 is significant at the .797 level while the beta coefficient was -.057. Since this relationship is not significant, hypothesis number six, concerning a significant relationship between SEX and vocabulary acquisition, was rejected.

The third relationship in this multiple regression equation was between AGE and VOCAB RS2. Table 9 indicates that the t-value of .816 is significant at the .424 level with a beta coefficient of .180. Thus hypothesis number nine, stating an expected significant relationship between AGE and meaning vocabulary, was rejected.

Summary of Findings

In an attempt to analyze the data gathered during this study and to decide whether to accept or reject the stated hypotheses, different levels of statistics were used. These ranged from simple descriptive statistics to the more complex multiple regression. Table 10 presents an integrated model of the nine relationships tested by regression analysis in this study. It was found that only one of the relationships was statistically significant. The word identification of children exposed to the treatment of paired reading was greater than the word identification of children in the control group. This was decided by a significance level of .090 in the analysis of variance and .085 in the multiple regression analysis which was acceptable at the 0.1 level.

The following hypothesized relationships were not statistically significant, however, the second one was in the right direction (Table 4).

Table 10

Regression Coefficients, Standard Errors, Standardized Regression Coefficients, t-values and Significance Levels for READ RS2, WORD RS2 and VOCAB RS2

Dependent Variables	Independent Variables GROUP	SEX	AGE	
READ RS2				
B	2.261	-.195	.221	
SE(B)	3.527	3.597	.497	
Beta	.140	.120	.098	Mult R = .178
t-value	.641	.543	.444	
P	.528	.593	.662	R^2 = .032
WORD RS2				
B	25.496	-15.614	.625	
SE(B)	14.087	14.367	1.985	
Beta	.364	-.222	-.064	Mult R = .423
t-value	1.810	-1.087	.315	
P	.085	.289	.756	R^2 = .032
VOCAB RS2				
B	2.239	.107	.463	
SE(B)	4.026	4.106	.567	
Beta	.121	-.057	.180	Mult R = .198
t-value	.556	-.260	.816	
P	.584	.797	.424	R^2 = .039

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

1. The reading comprehension of children exposed to the treatment of paired reading was slightly better than the reading comprehension of the control group.

2. The meaning vocabulary of the children exposed to the treatment of paired reading was slightly better than the meaning vocabulary of the control group.

The hypotheses relating to the relationships between SEX and AGE and the dependent variables were rejected. No statistically significant relationships were found between SEX and reading comprehension, word identification and meaning vocabulary. There were also no significant relationships found between AGE and reading comprehension, word identification and meaning vocabulary.

Report on the Questionnaires

At the end of this project children of the experimental group were asked to complete a questionnaire. Parents of the experimental group were asked to complete a different questionnaire. The children's questionnaire asked for their reaction to the program (see Appendix B). The parents' questionnaire asked for their comments on how they perceived their children's reading ability and interest in reading as a result of their involvement in paired reading (see Appendix A).

Children's Responses to the Questionnaire

Eleven of the twelve experimental children completed the questionnaire. All of them reported that they liked doing paired reading. Ten of the eleven students reported that it was easy to learn and that paired reading helped them to become better at all kinds of reading; that is, they could read different kinds of text easily. Ten students also reported that paired reading led to a better relationship

with their parents because there were fewer arguments when parents helped with reading. As well, ten students stated that they would like to continue paired reading. Nine of the eleven students reported that it was easy to find a place to read, that the record sheet (Appendix H) was a help, and that they would tell others about paired reading. Only four of the eleven students said it was hard to get books and hard to find time to read. Only one student said it was hard to learn and only one said he/she wanted to stop paired reading. From these responses, the investigator concluded that paired reading had been viewed as a positive and valuable experience by the majority of the students involved.

Parent's Responses to the Questionnaire

Eleven of the twelve parents completed and returned the questionnaire. Five parents reported that their children were reading more, five about the same, and one reading less. Ten parents said their children were reading different kinds of books while one reported the child wanting to read the same kind of book. Five parents indicated that their children were more willing to read, five about the same, and only one child was less willing to read. Six parents reported that their children were more interested in reading, four about the same, and one less interested in reading. Eight parents stated that their children were enjoying reading more and making less mistakes while three said they were enjoying reading about the same and making about the same number of mistakes. Ten parents indicated their children were reading more fluently and one parent noticed no difference. All eleven parents reported that their children were understanding books more, showing more confidence in reading, and reading with more vitality and expression. All parents, except one, did not think that paired reading had led to their children being happier or behaving better at home. One parent indicated he/she would continue paired reading five times a week. Two said they would stop and start again later. Eight reported they would continue paired reading but on a less regular basis. Nine of

the eleven parents made additional comments at the end of the questionnaire. All of the comments made were positive towards the technique of paired reading. The following are examples of those comments.

1. We both feel our son has become more confident about reading. We think he feels he can read anything or at least he is willing to try. We also feel that paired reading has helped him tremendously in his spelling.

2. I feel paired reading has improved my daughter's reading ability and has given her confidence to read a lot better.

3. We will continue to do paired reading but on a more flexible basis. I plan on using the technique with my little boy when he starts school. I thought the technique was excellent.

4. My son and I have enjoyed the paired reading program. I feel he has certainly benefited from it and I am happy we had the opportunity to be part of the program.

5. I think paired reading is beneficial to any person especially those who have been experiencing difficulty with reading. The program truly works and it would be so nice if this was part of every day schooling. I can even say that because of this program I have been encouraged to read a lot more than I previously did.

The results of this questionnaire led the investigator to conclude that all parents viewed paired reading as a very effective means of helping their children with reading at home. Although the results of the pre and posttests did not all indicate significant levels of improvement one must remember that not all benefits of a program such as paired reading are measurable on a test. Therefore, we should not regard only gains in test scores as a measure of success.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND FURTHER RESEARCH

Introduction

The purpose of this chapter is threefold. First, the study will be summarized and conclusions about the findings will be drawn. Second, theoretical and practical implications of the study will be presented. Third, suggestions will be made for replication and/or extension of this research.

Summary and Conclusions

This study, which was designed to measure improvement in reading comprehension, word recognition and meaning vocabulary, was conducted over a sixteen week period. It was carried out with parents and 25 children from a grade two class in the City of St. John's. The children were randomly assigned to a control or an experimental group. The twelve parents of the experimental group met with the investigator for three meetings at which time the investigator instructed them in an effective and simple way to help their children with reading at home. This technique, known as paired reading, has been the focus of considerable attention by educators and researchers in Britain since 1974. The study reviews the background to the development of parental involvement in children's education with specific reference to parental involvement in the teaching of reading. Also presented is the origin and philosophy of paired reading and how it could be effectively used by parents to improve the reading levels of their children. A further discussion involves the direct influence paired reading can have on the improvement of a child's word recognition, comprehension and meaning vocabulary.

An experimental study was conducted in order to measure whether the group taking part in paired reading made greater gains in comprehension, word recognition and meaning vocabulary than a control group who did not receive

this treatment. Because of the widely known fact that other factors also influence reading performance, the investigator controlled for the two variables of age and sex. This was done through the use of regression analysis.

Word recognition showed a significant statistical difference for the experimental group over the control group. While comprehension and meaning vocabulary did not show a significant difference between the groups, the experimental group showed more improvement in meaning vocabulary than the control group according to the mean scores.

The variable sex, had no significant effect on any of the dependent variables when controlling for age and treatment. Likewise, the variable age had no significant effect on any of the dependent variables when controlling for sex and treatment.

As a result of this study, it appears that paired reading had a greater influence on the improvement of word recognition than on the improvement of comprehension or meaning vocabulary. This is a finding worthy of note since it is readily agreed that acquisition of a sight vocabulary is fundamental to success in reading.

After compiling the results of the questionnaires completed by both children and parents of the experimental group, the investigator concluded that the technique of paired reading can be an effective and rewarding means of teaching parents a procedure for helping their children with reading at home. Both parents and children responded positively to the experience. The majority of them reported that they would like to continue with the procedure even after the project had ended.

Theoretical Implications

The results of this study tend to support the notion that an important

variable in reading success may be the help children receive at home over and above that received in the classroom. The study, therefore, supports Weiser's (1974) idea that the parental sharing of reading with their children is an important key to success in reading. She maintains that whether children become good readers or not is primarily up to the parents since they are the people who are in the position to set good examples for their children. Their respect for reading will be demonstrated to the child in the way they speak about books, model reading themselves and devote time to developing their child's interest in reading.

This study also supports the idea that parents want to help their children succeed in reading but often need guidance from the teacher in order to get started. All too often the result is frustration for both parents and children when parents try to remediate reading difficulties without a clear understanding of the process of reading (Pikulski, 1974). The importance of parental involvement and cooperation was carefully explained before this study started. It was then monitored throughout the duration of the project. Many parents commented on how they appreciated having the opportunity to avail of such a program and in so doing to learn how to help their children with reading. They felt that the program worked and that the school should make it available to all parents. Since it is primarily the responsibility of teachers to inform parents of their vital role in the teaching of reading (Weiser, 1974), teachers would do well to consider some strategies by which to do this. The paired reading program affords teachers a vehicle by which to show parents an easy and effective way to enhance their children's success in reading.

It seems that the greater the amount of practice, the more likely it is that words will remain in a child's memory. During the course of this study parents and children were required to read together from five to fifteen minutes, five days a week. The home record sheets (Appendix H) showed that most of the children

spent more than the maximum required time of fifteen minutes per day. This practice alone may have contributed to the statistically significant difference in word identification between the control and the experimental group.

Many theorists believe that learning to read should be a low stress experience which is fostered through positive reinforcement. This seems to be true of the paired reading experience portrayed in this study. Besides the measurable gains noted for the experimental group in word identification and vocabulary, these children demonstrated a more positive attitude towards reading at the end of the project. This is evident from the responses made by children to the questionnaire (Appendix B). Most children reported that paired reading had helped them to enjoy reading more as well as to be better readers. They felt that not having to figure out words when they didn't know them was a positive feature of the technique. Parents also reported that they, and their children, were less frustrated with the almost immediate help they were encouraged to provide to their children.

Through the use of the paired reading technique the theory that children learn to read best by actually reading is supported. In this study, parents encouraged their children to read the material so that it made sense rather than to stop and sound out words when they encountered difficulty. This way of learning to read has received support from psycholinquists such as Clay (1977), Goodman (1973) and Smith (1971). The questionnaire (Appendix A) completed by parents demonstrated that all but one parent believed that involvement in paired reading had led to improved accuracy and fluency in their childrens' reading. This belief is supported by the statistically significant difference noted for word recognition (reading accuracy) in Chapter 4.

The paired reading technique supports the notion of the importance of children choosing their own reading material as a motivator to want to read. Throughout this study children were free to choose books from a preselected number of

quality children's books. They were also encouraged to visit the school library where the librarian was available to help them with their selections. In addition, the children reported visiting public libraries and, thereby, reading a variety of books and children's magazines. They all seemed to enjoy the freedom of making their own decisions. The extent of the variety of materials read is evident from the Home Record Sheets completed by parents and children (Appendix H). The investigator believes that this arrangement for selection of reading materials worked well. All but one child reported that it was easy to get books. If children were unable to find a book of their choice from the preselected set of books, they did not hesitate to ask either the investigator or the school librarian to help them find the one they were looking for in the school library. Many educators agree that it is the responsibility of both parents and teachers to provide children access to the literate world of books. Paired reading afforded this opportunity for the duration of this study.

Practical Implications

Perhaps the most important practical implication is the notion that children have a better opportunity to learn to read if they are exposed to and have access to a variety of quality literature. Both parents and teachers must take the responsibility for making books available to children. Parents and teachers should encourage and/or provide regular visits to school and public libraries. Teachers should make available to parents the option of buying inexpensive paperbacks from book clubs like Scholastic. Such paperbacks also make good reading material for the classroom. Schools can also promote book ownership by sponsoring Book Fairs which make available a variety of quality reading materials for children of all reading levels. Teachers should also encourage children to write and publish their own stories to share with each other.

It is not enough for parents and teachers to simply provide books. They must also ensure that they set good examples as readers and that they provide time for children to read. Parents and teachers are probably the most important significant others in a young child's life. It is these significant others who can instill in children the joy and value of learning to read. This can be done, first and foremost, by providing books, however, children also need to see their parents and teachers actually engaged in the act of reading on a regular basis. Providing time for reading should be part of the regular routine of a classroom and of a home. Time can be set aside every day to read aloud to children, to let children read to a friend and to let children do independent silent reading. The teacher can introduce the class to the genres of children's literature during daily read aloud times. This is also a good time for the teacher to model the reading process and demonstrate reading strategies to the children by involving them in predicting what will happen next. During reading aloud, books can be discussed and children can indicate the kind of books in which they are interested and recommend books for the teacher to read.

Parents, in providing time for reading at home, can extend and enhance the reading environment established at school. The bedtime story would be an excellent time for parent/child book encounters. In addition, parents can demonstrate the value of reading by sharing magazine and newspaper articles with their children. Parents can also encourage book reading between siblings. A younger child will often sit for extended periods listening to an older sibling read. Parents can foster a love for reading by encouraging their children to tell interested family members (for example, grandparents) about the books they are reading.

Another practical implication arising from this study relates to the idea of parents' willingness to become involved in their children's reading. It was obvious from the overwhelming cooperation the researcher received from parents that they

were eager to participate in any project that might benefit their children. It seems, though, that the responsibility for initiating this kind of cooperation lies with the classroom teacher. Homework research projects are one way in which parents can become involved in reading with their children as they direct the child to appropriate resources, help the child interpret the material read and assist in reporting what is read. It is not enough, however, for teachers to tell parents to help their children with reading and/or research projects because parents often don't know how to help. Teachers who seek parents' help must take the time to instruct parents in exactly whatever the teacher feels is required of the parents. Teachers who maintain this close contact with parents are likely to find parents a continual source of help and support.

The findings of this study further imply that children enjoy reading and learn to read best when the atmosphere is a relaxed and positive one. The children reported that paired reading was fun and enjoyable. Parents also commented that they found this method of helping their children with reading much more relaxing and less stressful than other things they had tried. They indicated that this was because they were allowed to tell the children trouble words rather than waiting for the children to struggle and sound out words. The idea of giving almost immediate help when the child is experiencing difficulty is a very practical one for both parents and teachers. This study undoubtedly supported this method as a means of improving children's word identification.

Although this study was carried out in only one grade two class in an urban area, the practical implications discussed above are applicable to any primary class. Department of Education test scores indicate that there is a serious problem with reading failure in this province. This situation exists despite traditional efforts by remedial reading teachers and classroom teachers to eliminate it. The researcher believes that a program such as paired reading may offer some relief

some relief for such reading failure. This program has proven itself as a means of providing cooperation between parents and teachers. Furthermore, it has been demonstrated that paired reading is a valuable method for improving children's word recognition and meaning vocabulary.

Limitations of Study

The experimental and control groups for this study were drawn from a grade two class in only one school in a denominational system in urban Newfoundland. The experimental group of 12 students and the control group of 13 students represented various levels of reading ability. Whilst most research literature indicated that paired reading projects to date tended to include only weaker readers, for this study all levels of reading ability were included in both the control and experimental groups. If the technique is more successful for weaker readers, then the inclusion of all reading levels may account for the lack of significant gains made by the experimental group in reading comprehension in this study. The relatively small sample, coupled with the fact that the subjects represented only one school in an urban area, limits the scope of the experiment. Furthermore, since only grade two students were used, the results may not be generalizable to other grade levels.

Generalizations about the effectiveness of the paired reading technique was further restricted by the short duration of the project and the lack of inclusion of a long term follow-up. It is also possible that the control group was affected by the interest and enthusiasm in reading which was displayed by the experimental group.

There is a further limitation in the amount of control the researcher had over ensuring that every parent followed precisely the steps outlined for conducting the paired reading technique, despite the continuous monitoring of the project by

the researcher. As well, the researcher had no control over the kind and amount of help parents of the control group gave their children for the duration of the project.

To control for the practice effect of testing, an alternate form was used for pretesting and posttesting in two of the tests described. There is no alternate form available for the Slosson Oral Reading Test (Slosson, 1963). However, the reliability coefficient is .99 if the test-retest interval is one week. For this study the test-retest interval was four months.

Many of the variables that affect the acquisition of reading comprehension, word identification and meaning vocabulary were not measured because the scope of the study would not permit it. Such variables as background experiences, perseverance, motivation to read, and amount of assistance given at home on a regular basis were not considered.

Suggestions for Further Research

The following suggestions for further research are attempts to overcome some of 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 one grade two class in an urban area. This type of investigation could be used with more than one class participating. The classes could be chosen to represent both rural and urban areas which would make the findings more generalizable. Borg and Gall (1983) suggest that a sample should contain at least 15 cases for each outcome variable in a study where multiple regression analysis is used. Such a sample size would enable the investigator to obtain more significant findings.

The second suggestion is to design a longitudinal study in which repeated measures on a set of individuals would be obtained over a period of time for the

variables used in this study. For example, measures could be gathered at the beginning and end of a grade and also at regular intervals in subsequent grades, thus permitting a repeated measures of multivariate design.

A third suggestion deals with a limitation of measurement. In the present study, the investigator did not measure the affective outcomes of the treatment. At the conclusion of the study it was believed that measuring attitudes, values, and appreciation towards reading as part of the pretesting and posttesting for each group could have been a valuable part of the study. From the questionnaires completed by the parents and children of the experimental group, the investigator noticed definite signs of more positive attitudes towards reading at the end of this project.

A fourth suggestion is to design a similar study which would include writing and spelling as dependent variables. It is readily agreed by educators that repeated exposure to book language leads to improvements in both of these areas.

A fifth suggestion is to design a similar study which would assess whether paired reading could be used to effectively enhance the reading levels of beginning readers. Such a study could be conducted with preschool and kindergarten children who are already showing a readiness for reading.

A sixth suggestion is to devise a way of helping parents improve their techniques in dealing with vocabulary and asking comprehension question before, during and after reading. Indepth instruction of parents in these areas may lead to an improvement in the meaning vocabulary and comprehension of children.

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APPENDIX A

APPENDIX A

Exact copy (Topping, 1984c)

PAIRED READING WHAT DO YOU THINK?

Name of Parent _____

PLEASE TICK WHICH IS TRUE FOR YOU

A. Is your child:-

(1) Reading more about the same:

Reading less

(2) Sticking to the same kind of book about the same:

Reading different kinds of books

(3) Understanding books more about the same:

Understanding books less

B. Is your child:-

(4) Less confident in reading about the same:

More confidence in reading

(5) More willing to read about the same:

Less willing to read

(6) Less interested in reading about the same:
More interest in reading

(7) Enjoying read more about the same:
Enjoying reading less

C. When reading out loud, is your child:-

(8) Making more mistakes about the same:
Making less mistakes

(9) Keeping a steadier flow about the same:
Stopping & starting more

(10) Reading in a lifeless, boring way about the same:
Reading with more life & expression

D. Is your child:-

(11) Behaving better at home about the same:
Behaving worse at home

(12) Happier at home about the same:
Less happy at home

E. Are you going to:-

(13) Stop Paired Reading, and perhaps start again later?

Go on doing Paired Reading, but only twice a week?

Go on doing Paired Reading 5 times a week?

Go on reading at home, but in a rather different way?

Any other comments:-

APPENDIX B

APPENDIX B

Exact copy (Topping, 1984c)

PAIRED READING WHAT WAS IT LIKE?

Tick which is true for you

1. a. It was hard to get books OR
   b. It was easy to get books

2. a. It was easy to find time OR
   b. It was hard to find time

3. a. It was hard to find a good place to read OR
   b. It was easy to find a good place to read

4. a. It was easy to learn to do OR
   b. It was hard to learn to do

5. a. I soon got fed up with it OR
   b. I liked doing it

6. a. The Record Sheet was a help OR
   b. The Record Sheet was no use

PAIRED READING HAS LED TO:

7. a. Not liking all kinds of reading OR
   b. Liking all reading better

8. a. Getting better at all kinds of reading OR
   b. No better at all kinds of reading

9. a. Getting on worse with each other OR
   b. Getting on better with each other

10. a. I want to go on doing Paired Reading OR
    b. I want to stop Paired Reading for now

11. a. I won't tell anyone about Paired Reading OR
    b. I will tell other people about Paired Reading

12. Can you tell us one thing we can do to make Paired Reading better: (or the way we tell you about it?) Write what you think here:

Name of child _____

APPENDIX C

Appendix C

Exact copy (Topping, 1984c)

PAIRED READING

HOW TO DO IT

How Mums and Dads can help their

kids to read better

PAIRED READING is a very good way for parents to help with their children's reading. It works really well with most children, and their reading gets a lot better. Also, Paired Reading fits in very well with the teaching at school, so children don't get mixed up. Most children really like it - it helps them want to read.

WHAT YOU NEED

Books to choose from, at home or from school or the library. School will tell you about the libraries.

Your child should choose the book. Children learn to read better from books they like. Don't worry if it seems too hard. Your child will soon get used to picking books that aren't too hard.

If your child gets fed up with a book, and wants to change it, that's O.K. Only read a book again if the child wants to.

Time to do Paired Reading. Try very hard to do some Paired Reading nearly every day. You only need to do 5 minutes each day, if you want. Don't do more than 15 minutes unless your child wants to carry on.

Don't make children do Paired Reading when they really want to do something else.

If mum or dad haven't got time to do Paired Reading for 5 minutes 6 days a week, grandma or grandad or older brother or sister can help. They must do Paired Reading in just the same way.

Place to do Paired Reading. Try to find a place that's quiet. Children can't read when it's noisy, or when there's lots going on. Get away from the T.V., or turn it off.

Try to find a place that's comfy. If you're not comfortable, you'll both be shifting about. Then you won't be able to look carefully and easily at the book together.

Get close - reading together can be very warm and snuggly.

New Ways of helping. It's often harder for parents to learn new ways than it is for children:

With Paired Reading, the hardest things for parents to get used to are:-

1. When your child gets a word wrong, you just tell your child what the word says. Then your child says it after you. You DON'T make the child struggle and struggle, or "break it up" or "sound it out".

2. When your child gets words right, you smile and show you are pleased and say "good". You DON'T nag and fuss about the words your child gets wrong. Praise for: good reading of hard words, getting all the words in a sentence right, and putting wrong words right before you do (self-correction).

Talk

Show interest in the book your child has chosen. Talk about the pictures. Talk

about what's in the book as your child goes through it. It's best if you talk at the end of a page or section, or your child might lose track of the story. Ask what your child thinks might happen next. Listen to your child - don't you do all the talking.

Notes

It is a help for both child and school teacher to keep a note each day of what has been read, and how your child is going on.

There is a diary on the last page that you can use for this. If your child has done well, write this on the paper. (Appendix F)

At the end of the week, your child can take the paper to show the teacher at school, and get some extra fuss for doing well. This helps to keep them keen.

HOW TO DO IT

Paired Reading has 2 steps:-

Reading together

The helper and the reader both read the words out loud together. Neither must go too fast. Helpers should make their speed as fast or as slow as the reader's.

The reader must read every word. If the reader struggles and then gets it right, the helper should show pleasure. But don't let the reader struggle for more than 5 seconds.

If the reader:-

(a) struggles too long, or (b) struggles and gets it wrong

then the helper:-

(1) just says the word right, and

(2) makes sure the reader then says it right as well.

Make sure the reader looks at the words. It can help if one of you points to the word you are both reading with a finger. It's best if the reader will do the pointing.

Reading alone

When you are Reading Together and the reader feels good enough, he or she might want to read a bit alone. You should agree on a way for the reader to ask the helper to be quiet.

This could be a knock, a sign or a squeeze. (You don't want the reader to have to say "be quiet" or they will lose track of the reading). The helper stops reading out loud straight away, and praises the reader for making the sign.

If the reader struggles for more than 5 seconds, or struggles and gets it wrong, the helper reads the word out loud right for them. Make sure the reader then says it right as well.

Then you both go on reading out loud together, until the reader again feels good enough to read alone, and again asks the helper to be quiet.

Do's and Don't of Paired Reading

DO

1. Make the atmosphere as happy, casual and relaxed as possible.
2. Let the child sit close to you.
3. Talk about the pictures first and the story as it unfolds.
4. Give lots of praise for effort.
5. Provide child access to good stories of interest to him/her.
6. Reread the book if the child wants to.
7. Encourage the child to read for meaning by using context clues.
8. Read only five out of seven nights unless the child wants more.
9. Wait four to five seconds before supplying the word the child is stuck on.

DON'T

1. Read for more than ten to fifteen minutes per night unless the child wants to.
2. Make reading an unpleasant task.
3. Make the child feel he/she is in competition with anyone else.
4. Threaten or show anxiety over any disinterest or mistakes.
5. Be afraid to ask for help or advice of teachers.
6. Read with the TV or radio on.
7. Dwell on errors or make the child sound out words.

1. Children are encouraged to pursue their own interests in reading material. They have more enthusiasm from reading about their own favourite things, and so try harder. Paired Reading gives them as much support as they need to read whatever book they choose.

2. Children are more in control of what's going on - instead of having reading crammed into them, they make decisions them-selves in the light of their own purposes (e.g. about choice of books, going on longer than 10 minutes, and going onto Reading Alone.)

3. There is no failure - it is impossible not to get a word right within 5 seconds or so.

4. Paired Reading is very flexible - the child decides how much support is necessary according to the current level of interest, mood, degree of tiredness, amount of confidence, difficulty of the book, and so on.

5. The child gets lots of praise - its much nicer to be told when you're doing well, instead of just being moaned at when you go wrong.

6. There's lots of emphasis on understanding - getting the meaning out of the words - and that's what reading is all about. It's no use being able to say the words mechanically without following the meaning.

7. Paired Reading gives continuity - it eliminates stopping and starting to "break up" hard words - which often left you having forgotten the beginning of the sentence by the time you go to the end. This means it's easier

for children to make sensible guesses at new words, based on the meaning of the surrounding words.

8. During Reading Together, a child can learn (by example) to read with expression and the right pacing - for example, by copying how the adult pauses at punctuation, or gives emphasis to certain words.

9. Children are given a perfect example of how to pronounce difficult words, instead of being left to work it out them-selves and then thinking their own half-right efforts are actually correct. In Paired Reading, children learn by what psychologists call modelling.

10. When doing Paired Reading, children get a bit of their own peaceful, private attention from their parents, which they might not have otherwise had. There is some evidence that just giving children more attention can actually improve their reading. Of course, this also applies to other schemes for non-teachers to help with children's reading.

11. Paired Reading increases the amount of sheer practice at reading children get. Because children are supported through books, they get through them faster. So the number of books read in a week goes up, and the number of words children look at in a week goes up -and more words must stick in the child's memory.

12. Paired Reading gives parents a clear, straightforward and enjoyable way of helping their children - so they don't get confused, worried or bad-tempered about reading.

So you can see how Paired Reading helps - children

A. **WANT** to read more,

B. have more **CONFIDENCE**, and

C. show more **UNDERSTANDING**.

APPENDIX D

APPENDIX D

Some questions to guide your discussion of stories you read with your children, are listed below.

Using Questions in Talking About Books

FANTASY STORIES

Is the world in which the story is set similar to our world? What are the differences?

What special things or powers do the characters have that we do not?

Do the characters have these powers at the beginning of the story? If not, how do they discover them? Are there two opposite forces in the story? If so, what are they?

What are the problems faced by the main characters?

How do they solve these problems?

How has the author made the story believable?

If you had been part of the story, how might you have used your special powers to solve the problem?

Did you enjoy this fantasy?

MYSTERY STORIES

What was the actual mystery or crime in the story?

Are you like any of the characters in the book?

Was there a reason for the mystery or crime?

What was the reason and what characters would gain something?

Was the setting in the story important to the mystery? If so, in what way?

What clues did the author give you to help solve the mystery?

Did the author do anything to throw you off the track?

How was the mystery solved and by whom?

Were you satisfied with the ending? Please explain your answer.

Could such things really happen?

Do you think you could plan your own mystery story, similar to the one in the book?

Did you solve the mystery before it was solved in the story? How did you do it?

Were there questions still unanswered at the end of the story?

How did the author build up excitement in the story?

SCHOOL STORIES

Do you ever feel like any of the children in this story?

In what ways is your school life like that in the book?

What do you notice about the groups of friends in your school and in the school in the book?

What different sorts of things do children learn in school and out of school?

Which children in the book enjoy school the most? Why do you think this is so?

How believable is school life in the story? For example, are the teachers really like that?

Was there a problem in this story? If so, between whom and why?

FAMILY STORIES

Who are the main characters in the story?

What problems do these characters face and how do they solve them?

What is your favourite moment in the story?

How and why is the life of this family similar to or different from to your own family life? Give your reasons.

Is there anyone in this family who is a bit like you? Why?

BIOGRAPHY

Who is the main character of the story? What sort of person is s/he? Is s/he the author?

Which part of the main character's life is the story about?

What were some of the main events in the life of the main character?

In what way did the main events affect him or her?

Try to place yourself in the character's position. Would you have acted in the same way or would you do things differently? Why?

If given the chance to write your own life story, what things would you tell? How would you tell your story?

ADVENTURE STORIES

Is there a crime or wrong-doing that starts the excitement in the book? Who does it?

Is there one main character in the story?

What sorts of problems occur? How do the characters solve them?

Where and when does the adventure happen?

Are there any animals in the story? Are they important in the adventure? How?

Do adults have an important part? What role do adults play?

Does anyone get punished or caught for something he or she has done wrong? How does this happen?

Does the adventure turn out well in the end?

Did the adventure end the way you expected?

Would you like to have an adventure like the one in the story?

APPENDIX E

Cowan Heights Elementary School

104 Canada Drive, St. John's, Newfoundland, Canada. A1E 2M8

Telephone: (709) 745-1700

APPENDIX E

October 24, 1988

Mr. N. Kelland
Superintendent,
Avalon Consolidated School Board,
St. John's, Newfoundland.

Dear Mr. Kelland:

I am presently working towards the completion of a Master's degree in reading with my supervisor Dr. Mona Beebe. In order to complete this degree I must do a small research project.

I hereby request your permission to run a four month reading project at _____ School. The project would involve Mrs. _____ grade two class. It is designed to teach parents an effective but easy method to help their children with reading at home. This method has been researched extensively in Britain with good results. Reports have shown that children involved in such a project have increased their reading levels three to five times the normal rate.

Except for the tests (totalling about one hour) that would be administered at the beginning and end of the project, the regular classroom program would not be interrupted in any way. If you are willing to grant my request, would you please sign the enclosed letters in the spaces provided.

Yours sincerely,

Linda Laite

LL/cs

Encls.

Principal: Marguerite Mehaney

Vice-Principal: Calvert Randell

The Avalon Consolidated School Board
P.O. BOX 1980, ST. JOHN'S, NEWFOUNDLAND A1C 5R5
TELEPHONE (709) 754-0710 FAX (709) 754-0122

April 12, 1990

Mrs. Linda Laite
Cowan Heights Elementary School
Canada Drive
St. John's, NF

Dear Mrs. Laite:

As a follow-up to your letter previously sent in October of 1988, I have discussed your project request with the Deputy Superintendent who gave you approval originally.

As was stated at that time, on behalf of the Board, permission is granted for you to conduct your project at Cowan Heights Elementary providing parent permission forms are signed and administrative time can be arranged between you and the principal.

I wish you every success in the completion of your thesis and I would appreciate a copy of your findings in the project.

Yours truly,

F.H. Tulk,
Assistant Superintendent.

FHT/rt

APPENDIX F

Cowan Heights Elementary School

104 Canada Drive, St. John's, Newfoundland, Canada. A1E 2M8

Telephone: (709) 745-1700

APPENDIX F

November 16, 1989

Dear _____

During the school year I will be doing some testing with the children in Mrs. _____ class as part of my study for a Master's degree in reading. This testing has the approval of the superintendent and the school principal. Testing will take place in November and again in April or May during regular school hours.

These tests will not determine your child's placement or instruction. The results will be kept strictly confidential and in the writing of my report, the children's names will not be used.

Please do not discuss these tests with your child before he/she does them because this may cause anxiety during the testing situation. Your signature will indicate permission for me to work with your child. If you wish to speak to me concerning this project you may call me at home (368-1888) after 6 p.m.

Your cooperation is very much appreciated.

Sincerely,

Linda Laite

_____

Parent

Principal: Marguerite Mehaney

Vice-Principal: Calvert Randell

APPENDIX G

Cowan Heights Elementary School

104 Canada Drive, St. John's, Newfoundland, Canada. A1E 2M8

Telephone: (709) 745-1700

APPENDIX G

November 17, 1989

Dear _____

I am working towards the completion of a Master's degree in the area of reading and in order to complete the degree I must conduct a small research project. My research involves teaching parents an effective but simple way to help their children with reading at home.

Throughout a process of random selection your child _____ has been chosen to be involved in this project. If you wish your child to participate it means that one parent will work with the child for the duration of the study. The project will run for 16 weeks and participants will be asked to attend at least 4 group meetings of 1 to 1 1/2 hours duration. The project involves reading with your child five nights a week for 10 to 15 minutes. You are probably already doing this: however, if you are like many parents you may be wondering if you are "doing it right". My aim is to teach parents how to make maximum use of the time spent reading with their child.

Your signature below will indicate your willingness to become involved. You will be notified later when the first group meeting will be held. If you would like to know more about the project, please do not hesitate to call me at home after 6 p.m. (368-1888).

The results of any testing for this project will be kept confidential. Your child's principal and the School Board Superintendent have given permission for me to run this project.

Sincerely,

Linda Laite

_____

Parent

Principal: Marguerite Mehaney

Vice-Principal: Calvert Randell

APPENDIX H

APPENDIX H

HOME READING RECORD SHEET

Name: _____

DAY	BOOK CHOSEN	TIME SPENT	WITH WHOM?	COMMENTS
Monday				
Tuesday				
Wednesday				
Friday				
Saturday				
Sunday				