AN EVALUATION OF AN INSTRUCTIONAL INTERVENTION PROGRAM BASED ON CLAY'S READING RECOVERY PROGRAM FOR ELEMENTARY SCHOOL STUDENTS

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STUDENTS

by

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ABSTRACT

This study was designed to evaluate the effects of an instructional intervention program based on the principles of Clay's (1985) "Reading Recovery Program" for nine elementary school students who were experiencing difficulties with reading. The study was implemented in an elementary grade Special Education classroom by the special education teacher who was also the researcher. The nine students, from grades four through six, who participated in the study received instruction in four small groups for four forty-minute periods in a six day cycle.

The researcher designed the program around current research on the "Reading Recovery Program". Clay's (1985) lesson format was modified to meet the demands of small group instruction of older students. The goal of the program was to develop self-extending systems that would enable students to read independently to the best of their ability. Each student's program was tailored to meet his/her individual needs based on his/her strengths rather than weaknesses. The researcher integrated research on current theories of reading, learning and teaching to interpret and apply the procedures outlined in Clay's (1985) "Reading Recovery Program".

Prior to the implementation of the instructional intervention program, the researcher administered the Stieglitz Informal Reading Inventory to identify strengths and weaknesses of each student. The Peabody Picture Vocabulary Test-Revised was also administered to determine the students' potential for language ability. Running records and anecdotal records were taken regularly at the scheduled sessions to monitor students' progress in the independent use of effective reading strategies and to direct instruction. Pre- and posttest scores on the Gates-McGinitie Reading Tests were utilized to determine gains in reading achievement. Scores from the regular September testing, which were available at the school, were used to compare gains made from September to pretest with gains made from pretest to posttest.

Pretest scores on the Gates-McGinitie Reading Tests revealed that all students were below grade level in vocabulary and comprehension. Posttest scores indicated that all students were still below grade level on both subtests. All but one student made positive gains on vocabulary, and seven students made positive gains in comprehension, compared to all students making positive gains in vocabulary from September to the beginning of the study, and five students showing a regression in performance on comprehension. Group

mean gains from pretest to posttest was four months (i.e., 0.4) for vocabulary and eight months (i.e., 0.8) for comprehension for 0.5 of a school year. Group mean gains from September to pretest was nine months for vocabulary (i.e., 0.9) compared to a regression in performance of one month (i.e., -0.1) on the comprehension subtest for 0.4 of a school year.

Information gleaned from running records and anecdotal records revealed that, at the beginning of the study, all students used "sounding out" to identify unknown words and there was a general overreliance on visual cues when reading connected text. By the end of the study all students exhibited some evidence of integrating semantic, syntactic and visual cues to predict and confirm their reading, and were showing varying degrees of proficiency in monitoring and self-correcting.

Based on the results of this study, it was concluded that elementary school students experiencing difficulties with reading benefited from an instructional intervention program based on Clay's (1985) "Reading Recovery Program".

ACKNOWLEDGEMENTS

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CHAPTER I

NATURE OF THE STUDY

Introduction

Modern society is driven by the "creation, manipulation, and communication of information" (Allington, 1995, p.9). To prepare students to effectively participate in this information age, schools place a high priority upon teaching students to read beyond the level of minimum competency.

Roots of literacy development are established before formal schooling begins, as children engage in functional speaking, listening, reading and writing activities to make sense of their world (Ferreiro & Teberosky, 1982; Harste, Woodward & Burke, 1984). These roots are nourished during the preschool years as parents engage their children in meaningful literacy-related experiences (Lyons, Pinnell, & DeFord, 1993). As children interact with adults within socially mediated activities there evolves an awareness that print is a meaningful, communicative process (Goodman, 1984). They develop a strong knowledge of oral language, a schema of story and concepts knowledge about how print works (Clay, 1985; Teale & Sulzby, 1986). The foundations for learning to read are laid.

Unfortunately, not all children come to school with the varied experiences necessary to ensure success with learning to read. Some come from literacy impoverished homes and have had few experiences with books. They are limited in language development, literacy development and world knowledge (Klesius & Griffith, 1996). Other children are unable to respond to instruction, are unfamiliar with the kinds of interactions that occur in the classroom or they are just not interested in reading (Spiegel, 1995; Stanovich, 1986). These children are unable to construct their own personal understandings of print and perform poorly compared to their classmates (Allington, 1994).

Current research utilizes the term 'at-risk' to refer to those students who are in danger of not fulfilling their academic learning potential (Allington & Cunningham, 1996). Their achievement levels are below that expected for their age and ability (Spiegel, 1995). Matthews, Monsaas and Penwick (1997) suggested that these children come from urban, minority and low socioeconomic homes where they have had little exposure to school-like literacy activities. When in school, they are viewed as lacking in ability and experience, physiological maturity, or the perceptual skills necessary for reading.

Children "at-risk" for literacy failure are often identified in the first year of school (Clay, 1985). The educational outcomes for them are not optimistic. Research suggests that these students will most likely continue to be poor readers in later grades (Juel, 1988). Indeed, McGill-Franzen and Allington (1991) reported that nine out of ten children who have reading problems at the end of grade one continue to have reading problems throughout elementary school. Other problems are associated with limited reading skills. These students develop low self-esteem, do poorly in other subject areas, may cause discipline problems and are less likely to finish high school. As adults, low literacy levels are correlated with unemployment, crime, and social problems (Shannahan & Barr, 1995).

When students fail to read on schedule they are either retained or are referred to a remedial or special education program. However, as the number of students considered to be "at-risk" continues to grow, educators are questioning the efficacy of these approaches (Walmsley & Allington, 1995).

Although the negative effects of retention have been documented for over a half century, its practice is still widespread. Otto (1932) argued that the achievement levels of students are not improved when they repeat a grade. McGill-

Franzen and Allington (1991) supported the belief that children who fail are less likely to achieve at an average level in their classroom than underachieving students who are promoted. As these students progress through school they are older than their peers, continue to be poor readers and are potentials for dropping out. In fact, children who are retained have only a 20% chance of finishing school.

Research on the effectiveness of remedial programs offers no more optimism than does the research on retention. Allington (1994) stateed that special programs have failed to accelerate the literacy development of children having difficulties in school. Bean, Coole, Eichelberger, Lazaz, and Zigmond (1991) reported that, although students receiving special services demonstrated gains on standardized achievement tests, these gains were not substantial enough to move them to the level of the students who performed within the average range. When Carter (1984) compared students receiving remedial services with those who did not, he found that the former group showed greater improvement in reading but only those students in the primary grades. This is supported by Kennedy, Birman, and Demaline (1986) who noted that remediation of learning problems beyond the primary grades is usually unsuccessful. Carter also found that

students who entered the program at a near average level of achievement responded most to the program whereas those students who entered at a low level profited little from instruction.

Concerns raised by critics of remedial programs are wide ranging. They relate specifically to the lack of cohesiveness between the regular classroom program and the remedial program (Allington & McGill-Franzen, 1988), loss of instructional time during transitions from the classroom to the pull-out setting (Allington, Steutzel, Shake, & Lambe, 1986), and the effects of being stigmatized and suffering from low self-esteem (Leinhardt & Pallay, 1982).

The nature of instruction in remedial programs has also received considerable criticism in the research. Traditionally, remedial programs followed a "deficit model" in which reading instruction is teacher-directed and focuses on strengthening skills through worksheets and drills. The premise for instruction takes a "reductionist perspective" where the student takes a passive role in learning. Reading is viewed as being made up of discreet skills that are stepping stones to higher order skills. This approach makes learning to read more difficult and the problems of at-risk students are compounded (Manning, 1995).

Current perspectives on literacy development support a "holistic approach" to reading instruction for all children (Mefferd & Pettigrew, 1997; Rhodes & Dudley-Marling, 1988). Holistic approaches are strongly influenced by a "social constructivist" theory of learning rather than the "reductionist" views of traditional programs. The fundamental assumptions within this framework suggest that children are actively involved in constructing their own knowledge (McInnis, 1995; Vygotsky, 1978). Learning is a "social phenomenon" which is best constructed in holistic activities embedded in functional, meaningful, authentic contexts (Palinscar & Klenk, 1993; Reid, 1993).

A "social constructivist" view of learning stresses the importance of social interaction in instructional settings. Teachers support the child's learning within his/her "zone of proximal development" (Vygotsky, 1978). Vygotsky defined this as the difference between what a child can do on his/her own and what he/she can do with the assistance of someone else. Within this zone teachers help the child build cognitive systems that lead to further learning (Clay, 1991a).

Within this theory of learning, reading is a "psycho-linguistic process" in which the reader constructs meaning from print (Goodman, 1976). It is an information-seeking,

problem solving activity in which language and visual perception are coordinated to allow the reader to construct meaning (Clay, 1985). As children learn to read, they acquire cognitive strategies that allow them to integrate information from different sources to construct meaning. Students need to use and monitor cues from the structure of sentences (e.g. syntactic cues), the meaning of text (e.g. semantic cues) and the visual cues of the letters or letter order (e.g. graphophonic cues) in search of meaning. Good readers have discovered these cognitive processes and are able to apply them to get meaning from text. Poor readers do not do this effectively (Sears, Carpenter, & Burstein, 1994)).

Children who find learning to read difficult are most in need of high quality instruction from which they can derive patterns and rules that they can apply to their own learning (Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994). Walmsley and Allington (1995) defined high quality instruction as that offered by teachers who are knowledgeable about how reading develops and how this development is enhanced. Instructional interactions between students and teachers must reflect this knowledge as teachers make informed decisions on how best to facilitate effective reading development.

BACKGROUND TO THE STUDY

A large number of students are reading below grade level(Canning, 1996). In general, educational efforts have had only small positive effects on the achievement levels of these students (Allington, 1994). Allington et al. (1986) argued that in order to address this problem it is necessary to investigate the nature of instruction in remedial programs. Increasing the quality of instruction is critical to successful reading development, whereas participation in traditional remedial programs, is likely to decrease the quality of instruction (Walmsley & Allington, 1995).

Traditional remedial programs are founded on, and sustained by the assumption that students who do not profit from the regular curriculum need something fundamentally different (Allington, 1983; Hiebert, 1987; Rhodes & Dudley-Marling, 1988). Beach (1997) argued that being "at-risk" is a proleptic cycle. Schools perceive these children as being different from their peers and therefore they are treated differently. Literacy instruction is slowed down and emphasizes drills on specific isolated skills believed to be prerequisites for reading acquisition (Johnston & Allington, 1991). Contrary to current theories of literacy acquisition

(Clay, 1985; Goodman, 1986; Smith, 1982), reading is viewed as effective word recognition rather than the construction of meaning. Considerable time is spent working independently on worksheets rather than authentic texts. Students do not receive instruction that facilitates literacy growth and therefore continue to fall behind their peers (Allington & Cunningham, 1996).

Prevailing views of reading as being the construction of meaning as students interact with text, prior knowledge, schema and story structure, point to an increased use of quality literature as a vehicle for facilitating the development of this knowledge in children (Cullinan, 1981; Funk & Funk, 1992; Pearson, 1985; Sutherland & Arbuthnot, 1986). The value of using literature in instructional programs is well documented. Clay (1990) and Boehnlein (1987) found that using literature with low achieving students produced gains on standardized tests. More importantly, children's literature has been found to enhance the development of background knowledge in a variety of areas, facilitate vocabulary acquisition, provide exposure to different models of writing, stimulate the imagination, and foster a love of reading (Funk & Funk, 1992). Instructional programs using quality trade books, and which are implemented

by teachers knowledgeable about how children learn to read and how to facilitate its development, are powerful interventions for at-risk students (Rhodes & Dudley-Marling, 1994; Silva & Delgado-Larocco, 1993).

Support programs for students who find learning to read difficult do not reflect the research on how best to support literacy development (Walmsley & Allington, 1995). Problems of remedial programs cannot be effectively addressed within a reductionist framework. Instruction must be based on a model that reflects the way in which learning occurs (Au & Carrol, 1997; Poplin, 1988; Rhodes & Dudley- Marling, 1988). Reid (1993) argued that to reflect a social constructivist view of learning, reading instruction must include practices more consistent with holistic perspectives.

STATEMENT OF THE PROBLEM

The purpose of this study was to implement and evaluate an instructional intervention program based on the principles of Clay's (1985) "Reading Recovery Program". It was implemented with nine elementary students who were identified as having reading difficulties.

The major question to be investigated in this study is:

1. Will the intervention program implemented in this study improve students' reading ability in the following areas:

    (a) vocabulary and comprehension, as measured by the Gates-McGinitie Reading Tests, Second Canadian Edition, (1992)?

    (b) independent use of effective reading strategies, as measured by the daily "Running Records" and anecdotal records?

SIGNIFICANCE OF THE STUDY

Since many traditional remedial programs have not been effective in resolving the problems of slow to develop readers, educators have sought alternate approaches to improving literacy development. In the past decade, research has focused on the development of early intervention programs for kindergarten and first grade students. These programs polarize around the argument that since success in reading is essential for school achievement, the key moment for intervention is after the first year of schooling before

students with reading problems have developed strong, but ineffective, literacy habits (Slavin & Madden, 1989; Spiegel, 1995). The basic premise behind these interventions is that educators need to interrupt a "Matthew effect" in reading. That is, the problems of slow-to-develop readers are compounded as they receive less and less exposure to print (Stanovich, 1986).

One very promising intervention program model is Clay's (1985) "Reading Recovery Program". It has been widely implemented in New Zealand, Australia, the United States, Canada and the United Kingdom. It is based on a theory of learning and teaching consistent with "social constructivist" views. The high level of success this program has attained suggests that it is an effective solution to the problem of early reading failure (Center, Wheldall, Freeman, Outhred, & McNaught, 1995). Lyons et al.(1993) suggested that this intervention program provides a model for enhancing the literacy development for all students at risk of failure in school. Investigations into the instructional practices and student-teacher interactions of the program indicates that this intervention has implications for other educational efforts designed to provide the quality instruction that these students need.

LIMITATIONS OF THE STUDY

Clay's (1985) "Reading Recovery Program" is designed to be implemented by teachers who have received specialized training for one year in procedures specific to Reading Recovery. The researcher has not received this training, but she has read widely the relevant literature in this area. Also, a limited number of students (i.e., nine), participated in this study and random sampling was not utilized with a control group.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Proficiency in reading is essential, both in school and later in life. Attaining literacy empowers students to acquire knowledge and understanding throughout their lives.

Children acquire the foundations of literacy before they come to school as they interact with their environment (Teale & Sulzby, 1986). On entry into school, each child brings unique characteristics which have been influenced by family, personal factors and prior learning experiences. The nature of these differences often puts some children at-risk for literacy failure (May & Kundert, 1997). Traditionally, "at-risk" students have been identified because of personal and familial characteristics such as membership in a racial or ethnic minority, low socioeconomic status, belonging to a single parent family, or having parents with low educational attainment (Pallas, Natriello, & McGill, 1989).

Allington and McGill-Franzen (1989) argued that in identifying students as being "at-risk", schools must consider more than student characteristics and their background

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conditions. May and Kundert (1997) suggested that educators must also recognize the reciprocal interaction between the child and his/her school program which may put a child at-risk for school failure. The nature and quality of educational experiences and support systems provided by the school is a critical factor in the acquisition of literacy and is influential in either placing or not placing a student at-risk (Ross, Smith, Slavin, & Madden, 1997). The challenge is for educators to assess students' difficulties in learning to read and write and to implement effective intervention programs that will support and extend their learning.

Traditional Approaches for "At-Risk" Students

When students fail to read on schedule, they are placed at-risk and the educational outcomes for them are not optimistic. Juel (1988) reported that 90 percent of the children who were not reading in grade one were still ineffective readers in the elementary grades. Similarly, Butler, Marsh, Sheppard, and Sheppard (1985) found that students who were the poorest readers in the early years of primary school remained the poorest readers during the first

six years of school. Furthermore, Badian (1988) claimed that by grade three individual reading performance is largely determined and the prognosis for improvement is bleak. Two reasons for this phenomenon are discussed in the research. First, children having difficulties with reading develop unproductive hypothesies about the reading process that become entrenched over time. Second, the "Matthew Effect" (Stanovich, 1986) compounds children's initial difficulties with reading (Juel, 1996). This means that children who have difficulty learning to read, read less than their successful peers and they fail to make expected progress.

Being identified as "at-risk" predisposes students for diminished "personal, social and civic well-being" (Chall & Curtis, p.349, cited in Matthews et al., 1997). These students develop low self-esteem, may cause discipline problems and are potential dropouts. They continue to fall behind, are likely to be unmotivated, have poor self-concepts as learners, are anxious about reading, and usually dislike reading (Slavin, 1994). As adults, low literacy levels are correlated with unemployment, crime, and social problems (Shanahan & Barr, 1995)

Children who have difficulties with learning to read are usually retained or referred to a remedial program. However,

as the number of students considered to be "at-risk" continues to grow, educators question the efficacy of these approaches (Walmsley & Allington, 1995).

Failure to learn to read is the basic causal factor for school retention (Slavin, 1991). The argument for retaining students to repeat a grade is that it provides them with the opportunity to enhance learning through the repetition and mastery of partially learned subject matter (Tanner & Galis, 1997). Its practice has a long-standing history even though research has demonstrated its negative impact on students (Allington & McGill-Franzen, 1995).

Meisels and Liaw (1993) argued that grade retention represents one of the clearest examples of miscommunication between research and practice. As a result of their investigations into the retention of students in kindergarten through grade eight, they concluded that retention at any point does not achieve its goal of helping retained students function at grade level when compared with their nonretained peers. Moreover, students who were not retained demonstrated higher academic gains than the retained students.

Peterson, DeGracie and Ayabe (1987) examined the long-term impact of retention on the academic performance of primary grade students. Results of this study indicated that

retained students significantly improved academic performance by the end of the retained year and in some cases, maintained this advantage over a two-year period. However, after three years, there were no differences between retained and promoted students. Roderick (1994) also reported on the long-term effects of retention in her investigation of the association between grade retention and dropout rate. She found that nearly one quarter of students who ended sixth grade overage for grade dropped out of school, and those that remained experienced substantial disengagement during their remaining years in school.

When Holmes and Matthews (1984) evaluated the existing research on retention, they found that not only is retention nonbeneficial for students in terms of academic achievement, it can be, in fact, harmful because of its negative effects on self-concept, social adjustment, and emotional adjustment.

More recent research reported by Mantzicopoulos (1997) continued to support the findings that retention is not a beneficial educational intervention for "at-risk" students despite the fact that its practice is ongoing.

Research on the effectiveness of remedial programs offers no more optimism than research on retention. Researchers and educators have raised concerns about the effectiveness of

these programs in addressing the needs of "at-risk" students.

Bean et al. (1991) reported that, although students in pullout programs showed greater gains than a comparison group on a standardized test, their gains did not bring them up to the average of more advantaged children. Jabubowski and Ogletree (1993) argued that the existing research indicates that individual instruction makes no difference to achievement and that students benefited more from in-class instruction.

When Carter (1984) compared students in pullout programs with a comparison group, he found that the students served by the remedial program showed improvement in grade one, two, and three, with the greatest gains being made in grade one. No gains were attained by students in grade four, five and six. Furthermore, students who entered the program at a near average achievement level profited most, while students at a low level of achievement profited little, if at all.

The premise behind remedial intervention is to provide low achieving students with much needed additional instruction. As a result of their investigations, Allington et al.(1986) concluded that contrary to intentions, remedial students may actually have less time available for instructional activities. They noted that, not only do remedial students receive less regular classroom reading

instruction comparable to that offered their peers, but considerable time was also lost in the remedial setting because of transitions between classrooms, social greetings, waiting, and off-task behaviour. In support of these findings, Anstrom (1995) reported that, considering the time missed on regular classroom instruction, most pull-out models add only ten minutes of instructional time each day.

Other concerns are associated with pull-out models. Segregating "at-risk" students from the regular class even for short periods of time stigmatizes them and causes substantial loss of self-esteem (Walmsley and Allington, 1995) and the possibility exists that the child, who is already having difficulty with reading, may have to contend with conflicting methodologies of reading instruction (Juel, 1996). In this situation, any confusions that the student has, are compounded.

The nature of instruction in remedial reading programs is also called into question. Tancock (1994) suggested that ineffective readers tend to receive qualitatively different instruction than their more skilled peers. Contrary to current research, teaching practices in remedial programs reflect a "reductionist perspective" of the reading process in which word recognition is emphasized over the construction of

meaning. Based on this view, readers are perceived as passive recipients of information in the text. Meaning resides in the text itself and to reproduce that meaning, the reader has to acquire a set of hierarchically-ordered subskills. Once these skills are mastered, the student is able to recognize words accurately and is considered to be an effective reader (Dole, Duffey, Roehler, & Pearson, 1991). Instructional procedures that reflect this view polarize around the premise that students having difficulty with reading need to be explicitly and systematically taught the prerequisite skills that they are lacking (Manning, 1995).

In his observations of pull-out programs, Allington (1987) found that students being served spent only two minutes of every hour reading connected text. For the remainder of the time, students were involved with lifeless, meaningless activities that do not relate to success with reading. Completing workbook pages on basic skills and drill-and-practice ditto sheets were the main components of the sessions. Bean et al. (1991) noted that a large percentage of time was spent on listening, as compared to reading, composing, or discussion activities, all of which are more likely to foster literacy development.

When ineffective readers do get the opportunity to read

connected text, Wuthrick (1990) suggested that teachers'
responses to their miscues are such that students are given
few opportunities to practice effective reading behaviours.
Allington (1980) found that teachers were more likely to
correct ineffective readers' miscues that were semantically
acceptable than when produced by good readers. Spiegel and
Rogers (1980) reported that this feedback usually involved
simply telling the student the word or focusing attention to
the visual cues. Hoffman and Clements (1984) found that
corrective feedback was provided for ineffective readers
within three seconds of the miscue, giving them no time to
respond to their own miscues. Wuthrick (1990) concluded that
when ineffective readers are not given the opportunity to use
and learn strategies for self-correcting and self-monitoring,
and there is a continued focus on accurate word
identification, ineffective readers' perceptions of reading as
a performing art, rather than the construction of meaning, is
reinforced.

This systematic differentiation of reading instruction
contributes to passivity and dependence on the part of
ineffective readers and has detrimental effects on their
school participation (Pinnell, 1989).

The failure of retention and referral to remedial pull-

out programs to achieve desired outcomes has led researchers to develop new frameworks for understanding how instructional practices in intervention programs can shape literacy opportunities for diverse learners (Raphael & McMahon, 1994). To provide effective instruction educators need to develop models that reflect current perspectives on reading, learning and teaching.

Reading Recovery

Clay (1985) suggested that ineffective readers are no different as learners from those perceived to be good readers. They may, however, be attending to, and using, a narrow range of strategies and applying them in rigid ways. Ineffective readers must be taught to orchestrate the use of a broad range of strategies when reading. They need to use all the information that is available in flexible ways. "Reading Recovery" was designed to provide ineffective readers with the supportive environment they need to develop inner control over these processes and to reduce reading failure.

Program Description

The "Reading Recovery Program" (Clay, 1985) is an early intervention program designed to accelerate the progress of first graders who score in the lowest 20% of their classes on a diagnostic survey. It was originally developed in New Zealand, and currently, it is being implemented in 49 U.S. states, Germany, the United Kingdom, Okinawa, the Mediterranean countries, New Zealand, Australia, seven Canadian provinces, Great Britain and Ireland (Pinnell, Lyons, & DeFord, 1997). No child is excluded on the basis of IQ, language background, learning disability status, or ethnic background. A basic premise of "Reading Recovery" is that children are failing with literacy because they are not learning to read or write, not because something is wrong with them. Students are tutored by certified teachers who have received training for 2.5 hours per week for an academic year. Tutoring continues for 30 minutes each day for twelve to twenty weeks to help students develop independent, self-generating systems for developing their own literacy (Pinnell, 1989).

Students selected for "Reading Recovery" are administered a "Diagnostic Survey" prior to instruction. This includes six

tests focusing on (a) letter identification, (b) word test, (c) concepts about print, (d) writing vocabulary, (e) dictation task, and (f) text reading level. All test results are brought together to describe the child's strengths and weaknesses, and the strategies being used or underused when reading and writing.

The first ten days of the intervention is called " roaming around the known". During this period, the teacher refines and re-evaluates the scores of the diagnostic survey by sharing books and writing collaborately with the student. Within a socially and emotionally supportive environment, the teacher goes over what the student already knows in as many different ways as possible to find out what he or she does well and what strategies are being used. The student develops confidence in what he or she can do and a foundation is formed for new learning.

A typical tutoring lesson has a specific format and includes the following five components:

1.   Reading familiar text.

2.   Taking a running record.

3.   Working with letters.

4.   Story writing.

5.   Reading new material.

The lesson format is a structured sequence that does not change from lesson to lesson. During each session children spend time engaged in reading and writing activities that are surrounded and supported by interactions between teachers and children. Books are carefully selected by the teacher as being appropriate for a child at that particular time. Writing activities focus on the students writing and reading their own messages in response to what they have read. What does change in the daily lessons are the teachers' responses as they follow students' reading and writing behaviours. Decisions are made "on the run" in ways that support acceleration and the development of effective strategies.

"Reading Recovery" is meant to be a temporary intervention. Students are considered to be successful in acquiring effective learning strategies and are discontinued from the program if they reach the level of performance of their peers in the middle reading group. An average level of reading is defined as a score within a 0.5 standard deviation of a random sample of students on four reading measures (i.e., concepts about print, writing vocabulary, writing dictation, and text reading) (Gredler, 1997). If this level is not achieved after 60 sessions students are released from the program but they are not considered discontinued. These

students may require extra tutoring or are referred for further assessment.

Theoretical Framework

Clay's (1985) "Reading Recovery Program" is grounded in theoretical consistency. It is influenced and guided by sound theories of reading, how it is learned, and how teachers can best facilitate its development within an instructional framework. An investigation of its theoretical foundations has implications for what educators must do to provide the quality instruction that "at-risk" learners require.

Model of Reading

Clay's (1985) "Reading Recovery Program" reflects current perspectives that reading is a far more complex process than that envisioned by traditional "reductionist" views. Reading is perceived as an interactive process that is constructive in nature (Anderson, Reynolds, Shalbert, & Goetz, 1977; Rumelhart, 1977). To construct meaning readers use their

existing knowledge and a range of cues from the structure of the sentence (i.e., syntactic cues), the meaning of the text (i.e., semantic cues) and the visual cues of the letters or letter order (i.e., graphophonic cues) in search of meaning. In addition, readers draw upon a repertoire of flexible strategies to understand what they read and to monitor ongoing comprehension. Good readers make decisions about which strategy to use, when to use it, and how to adapt it to a particular text (Dole, Duffy, Roehler, & Pearson, 1991).

Clay (1985) suggested that in order to be successful with this process, students must have good control of oral language, have developed perceptual skills, physiological maturity and hand-eye coordination to learn the directional patterns needed for reading, and as well, have the experiences allowing them to coordinate what they hear in language with what they see in print.

Implicit in this theory of reading are three major assumptions which serve as the foundation for "Reading Recovery":

1. Reading is a strategic process that takes place in the child's mind. Meaning is constructed from the interaction of background knowledge and print. Effective reading requires the child to coordinate various strategies,

visual information, the integration of letter-sound relationships, features of print, as well as background knowledge. Young readers need to be given opportunities to engage in this problem-solving activity. They require texts that are interesting and easy enough to assure meaning is constructed, but they also need some difficulty so that they can use problem solving strategies. This way they can build independent, self-extending systems that lead to more learning.

2. Reading and writing are interconnected. Both processes provide cues that facilitate responses in either area. Clay (1991a) argued that writing focuses the child on the details of print in ways that they do not in reading. Within the lesson format writing is surrounded by reading events to provide opportunities for the child to make conceptual links between reading and writing.

3. Children learn to read by being engaged with connected text rather than the systematic presentation of phonics skills. Through the reading of familiar material, children gain fluency and successfully use what they already know. The reading of new material provides them with the opportunity to independently problem solve and acquire strategies necessary for acceleration. Texts that

are meaningful and interesting, and provide just enough challenge for students to apply new procedures are recommended materials for instruction (Pinnell, 1989).

Holistic approaches to reading instruction have long been advocated by research. Huey (1908) theorized that reading involved the meaning of whole sentences, and that word-pronunciation would always be secondary. With Goodman (1976) and Smith (1982) there emerged the psycholinguistic perspective which directed researchers to consider underlying assumptions about basic processes in reading.

Instruction that reflects this perspective builds on knowledge that students bring to school, emphasizes the construction of meaning through activities that require higher order thinking skills, and provides opportunities for learners to apply literacy strategies in the context of meaningful reading and writing activities (Strickland, 1995).

Routman (1988) suggested that quality children's literature is the best vehicle for this kind of reading instruction. Literature-based programs provide students with new understandings of the forms and functions of written language, insights on personal experiences and those far

removed from them, and fosters life-long literacy (Silva & Delgado-Larocco, 1993).

Theory of Learning and Teaching

The "Reading Recovery Program" is influenced by Vygotsky's (1978) theory of cognitive development which suggests that knowledge is actively constructed by the learner. Learning, however, is not an individual experience, instead it is mediated by adults or more competent peers as experiences and insights are shared through language. The two functions of language, communication with others and self-direction, progress from social to inner self-directive speech (Pinnell, 1989). As individuals engage in socially supportive interactions, they gradually take over strategic processes and become independent learners (Pinnell et al., 1994).

Implicit in this theory of learning is a theory of teaching. Instruction is viewed as an interaction between child and teacher whereby knowledge is transformed to the child through conversations with the teacher. Teachers provide a scaffold for learning through discourse which enables students to complete tasks that they would otherwise not do

alone (Lyons et al., 1993). Teachers support children within their "zone of proximal development". Vygotsky (1978) defined this as the distance between what an individual can do alone and what they can do with the support of others. Within this zone, teachers in "Reading Recovery" assist students in developing independent self-generating systems for developing their own learning.

The teacher's role within the lesson period is very complex and critical to the success of the program since learning and thinking are developed within the social interactions of the teacher and student (Clay, 1991a). There is ongoing conversation between teacher and child in the context of authentic reading and writing activities. During theses conversations the teacher stimulates, encourages, challenges and supports effective reading behaviours. The teacher does this through demonstration, explicit teaching and talking about the process. Teacher-student talk eventually becomes inner dialogue that directs the students reading behaviour.

A study conducted by Pinnell, Lyons, DeFord, Bryk, and Seltzer (1994) emphasized the importance of teaching to the success of "Reading Recovery". They initiated a study in ten Ohio school districts that investigated the effects of three

components of "Reading Recovery": one-on-one tutoring, the lesson framework and the teaching. Students were randomly assigned to one of five groups:

1. Reading Recovery (RR).

2. Reading Success (RS), a one-on one program using the "Reading Recovery" lesson framework and procedures, but implemented with teachers who had received only two weeks training.

3. Direct Instruction Skills Plan (DISP), a one-on-one treatment using an alternate instructional model.

4. Reading/Writing Group (RWG), a small group instructional setting where students were involved with reading and writing activities taught by trained "Reading Recovery" teachers.

5. Control Group.

Treatment began early in the school year and students were assessed in February, May and the following October. Measures used included a dictation task, text reading level, the <u>Gates-McGinitie Reading Tests</u>, and the <u>Woodcock Reading Mastery Test</u>. Scores on all measures indicated that RR students performed significantly better than the control group and the other three treatments in February and May. They were

achieving within the average range while students in the other groups were reading in the low range. The following October the effects were still evident. The researchers concluded that "Reading Recovery" is successful, not just because of one-on-one tutoring and the instructional emphasis. The intensity and the effectiveness of the teaching is an important factor.

Effective teachers understand what students know and what they are ready to learn (Rycik, 1997). They support learners by moving into a student's world to support learning and then move out as soon as possible to allow students to problem-solve on their own (Isakson, 1997). Effective teachers know when and how to provide this scaffolded instruction.

Wong (1994) examined how "Reading Recovery" teachers scaffolded instruction as a function of text familiarity. Results of her analysis revealed that about half of the discourse in the lessons were teacher-scaffolding comments and that the nature of the support changed as text difficulty increased. When students were reading familiar material, teachers reinforced and coached children's attempts to read, however, with new texts, teachers increased their modelling, prompting, and discussions of the storyline.

Lyons et al. (1993) argued that to be effective in instructional interactions, teachers must observe and analyze

carefully what the child is doing and respond to that behaviour. The teacher must understand the child's perspective and direct questions and prompts to the student's attempts to make sense, rather than on the teacher's own preconceived notions of how the student should respond. They must be able to make instructional decisions "on the run", based on their observations and what they know about each individual student.

Reading Recovery Training

To define "Reading Recovery" as a one-on-one early intervention program is too simplistic. More appropriately, it is a systemwide intervention that provides the support for school districts to create learning environments that promote literacy for low achieving students (Lyons et al., 1993). The dynamic, three-tiered professional development scheme it provides is a critical factor in the success of the program (Clay, 1991a).

Training for teachers, teacher leaders, and trainers of teacher leaders requires a minimum time commitment of one year. Teachers who participate in the training should be experienced in grade one reading instruction and have at least

three years experience in a grade one classroom (Gaffney, 1991). Clay (1991a) recommended that teachers have had the experience of working with successful readers since it gives them a perspective on what behaviours need to be developed before a student is discontinued from the program.

The goal of the inquiry-oriented model of teacher education is for teachers to construct their own understandings of the reading process. By questioning, discussing, planning courses of action and explicitly supporting their decisions, teachers are expected to abandon preconceived notions of how children learn to read and to gradually change their teaching practices and think differently about reading instruction. As a result of training, "Reading Recovery" teachers accumulate a repertoire of strategies, and are able to select those most appropriate for each child at a particular point in time (Browne, Fitts, McLaughlin, McNamara, & Williams, 1996/1997).

Before the beginning of the school year, teachers are trained to take running records and to administer the tests of the "Diagnostic Survey". They are supported in making sensitive observations of reading behaviour and to make these observations more explicit by writing a diagnostic summary. Teachers discuss their reports with teacher leaders and their

peers.

Training during the school year involves attendance at weekly 2.5 hour classes at a school-based training center. Activities are focused on teaching procedures and the theories on which "Reading Recovery" teaching is based. A considerable amount of time is also spent on observing lessons being taught. Three times during the year each trainee brings a child to the training site and teaches a lesson behind a two-way glass. While this is happening, the teacher leader or trainer guides the rest of the class in discussions about what the child is doing and why the teacher might have responded in a particular way. The purpose of the "behind the glass" lessons is not to provide evaluation of the teacher, but to sharpen the observational skills of the observers, to develop their skill in predicting and hypothesizing about what the student is attempting to do to construct meaning, and to help them to become proficient at making minute-by-minute instructional decisions in response to student behaviours (Lyon et al., 1993).

Each teacher is also observed by the teacher leader at least four times a year as he/she teaches a student. These sessions are consultative in nature, where the teacher leader often interacts with the student being tutored to demonstrate

effective procedures which gradually become part of the teacher's procedures.

When teachers have worked with four children over a one year period and have learned to accelerate children's learning to discontinue them from the program, they are considered trained "Reading Recovery" teachers (Jones, 1991). Since learning about children and teaching is a never ending process, support for teachers continues after the initial training. During the following year, Clay (1991a) recommended that teachers make collaborative visits with colleagues to observe them teaching and to foster the continuing development of effective teaching.

Teacher-leader instruction prepares individuals to train teachers, to instruct students, and to operate a reading site (Allington & Walmsley, 1995). In addition to participating in the teacher training, they are expected to think simultaneously about their own teaching and the nature of training for teachers. The courseload for teacher leaders is more than twice that for teachers and usually requires an individual to relocate to a university campus. As well as the clinical sessions, they take courses on learning, language, reading and writing theory, and a practicum to develop their sensitive awareness of the organizational, professional and

child development issues associated with the implementation of the program (Clay, 1991a).

Throughout the year teacher leaders in training observe trained teacher leaders' work with teachers during inservice courses. With the guidance of trainers of teacher leaders, they develop skill in effective questioning, leading teachers to articulate what the child is doing and why they thought teachers responded as they did. Over the year's training they go from observing trained teacher leaders to gradually taking over the process of helping teachers grow and develop. By the end of their training, they are visiting teachers working in their schools, discussing new procedures, answering questions that teachers might have, and acting as advocates for ensuring effective results from the program in their educational district.

Candidates for teacher leader training must have demonstrated effectiveness as teachers of young children, leadership qualities, effective communication skills, knowledge of the theoretical understandings of the program, and have completed a master degree in a related area (Clay, 1991a; Gaffney, 1991).

After training, teacher leaders must continue to work with students to further develop and operationalize their own

theory building. Continued support is also provided from the university.

The third level of training involves instruction for trainers of teacher leaders. Relatively few people are selected for training at this level. Training requires a relatively complex range of skills including demonstrated effective teaching of children, the ability to teach theoretical material to teachers and teacher leaders, a comprehensive understanding of Clay's theory and current research in language development, reading, writing, spelling, and educational change, and an understanding of the leadership roles needed to provide support for the implementation of "Reading Recovery" in a particular area (Lyons et al. 1993).

The key to the success of "Reading Recovery" lies in the sensitive observation and powerful teaching provided by the specially trained teacher (Pinnell, Lyons, & DeFord, 1997)

Evaluation of Reading Recovery

During the 1970's, as a result of observational studies of children's reading and writing behaviour, New Zealander, Marie Clay developed a set of procedures to reduce reading

failure. In 1978, Clay and her team set out to demonstrate that these procedures were effective in accelerating the progress of low achieving students. Five schools participated in the study, with a total of 291 grade one students. All students were tested prior to implementation of the program to allow for comparison of the tutored children with their classmates. Throughout the year, 122 students were tutored for an average of thirteen to fourteen weeks. At the end of the year, all students were tested on book level, reading vocabulary and the "Diagnostic Survey". Results indicated that tutored students made gains that equalled or surpassed the gains made by their peers. Three years later, studies indicated that a high percentage of these students continued to make satisfactory progress.

In 1979, Clay set out to determine if these results could be replicated in a larger number of schools. Results indicated that, even though the 1979 students scored lower than the 1978 sample on entry to the program on reading vocabulary and book level, the final scores were comparable.

In 1984, after three years of investigation, "Reading Recovery" was piloted by the Ohio State University in six Ohio schools. Clay and a colleague trained teachers and teacher leaders in the diagnostic procedures. That year, the "Reading

Recovery" students were compared with another group of randomly selected low achieving students. The tutored students performed better than the comparison group on almost all measures and were comparable to other first graders in those schools.

In the 1985-86 school year, a longitudinal study began as "Reading Recovery" was implemented in twelve Ohio schools. Children who scored in the lowest 20% were randomly assigned to "Reading Recovery" or to another compensatory program which provided extra support all year in the basal reader lessons of the regular classroom. The "Reading Recovery" students received an average of 67 lessons, and 73% were successfully discontinued. Results at the end of the year showed that the "Reading Recovery" students performed better than the comparison group and also performed within the average range of other first graders. To determine if these gains would be maintained, both groups were followed for three years after the initial intervention. Measures on text reading ability indicated that "Reading Recovery" students continued to make progress for at least three years after the intervention. Both continued and not discontinued students outperformed the comparison group at the end of grade four and the discontinued group performed within the average range of their peers. The

researchers concluded that "Reading Recovery" has both immediate and long-term positive effects on the students being served (Lyons, Pinnell & DeFord, 1993).

While the results from other follow-up studies supported the maintenance of gains into second and third grade (Hiebert, 1994; Pinnell, 1989), Shanahan and Barr (1995) maintained that progress following discontinuance from the program may not continue at an average rate. To provide a more accurate estimate of the total effects of the program, they conducted an independent analysis of the existing evaluations of "Reading Recovery" in the United States that reported pre- and posttest comparisons. They pooled results across studies to determine the average gains of the total number of students served on the various test measures. From their analysis, the researchers found that the average tutored student who was successfully discontinued made dramatic progress during first grade, and that these gains approximated, and sometimes exceeded, the gains made by the average student. When gains made by the "Reading Recovery" students were compared with the gains of other low achieving students in some alternate type of intervention, the gains made by the "Reading Recovery" students were greater. However, by second and third grade, the rate of progress was slower for "Reading Recovery" students

than for the average students.

When Wasik and Slavin (1993) examined the results of the 1985-86 Ohio State University longitudinal study, they found that, whereas the raw score differences on text level were maintained at about the same level over three years, the effect size actually diminished. In other words, even though the size of the difference was stable, the importance of the difference was diminishing.

To assess short- and medium- term effects, Center et al. (1995) randomly assigned low achieving students to either "Reading Recovery" or to a traditional intervention program. They used criterion- and norm-referenced tests at pretest and posttest, at fifteen weeks and twelve months. No significant differences were noted between the two groups on any measure at pretest. Fifteen weeks after the intervention, "Reading Recovery" students significantly outperformed control students. However, at twelve months, no significant differences were found.

The inconclusiveness of some of the research on the stability of learning gains in the "Reading Recovery Program" indicate that once a child is brought up to the average range, their progress is less than the average of their class. Shanahan and Barr (1995) suggested that these findings

indicate a need for on going support for low achieving students. They argue that educators cannot expect "Reading Recovery" to entirely do away with the need for later assistance for these children.

Glynn, Crooks, Bethune, Ballard, and Smith (1989) provided some explanation for these "wash-out effects". They compared "Reading Recovery" students with a comparison group of low achieving students on book level and a measure of syntactic awareness. Results at the end of the year indicated that the "Reading Recovery" students made greater gains than the comparison group on book level, however, there were no differences on syntactic awareness. Maintenance tests a year later, on the same measures, indicated that the differences between both groups were not significant on both measures. The researchers argued that this "wash out effect" on book level was a result of the discrepancy between tested book level and classroom reading level materials. They found that after discontinuance students were provided with low reading level materials in their classrooms. The problem then, was not with the early intervention, but rather, with the subsequent instruction that failed to capitalize on the students' gains in reading.

Tunmer (1990) and Chapman and Tunmer (1991) argued that

"wash-out" effects occur because the <u>Reading Recovery</u> program does not systematically address the development of phonological awareness, which is directly associated with skilled reading (Bradley & Bryant, 1985; Chapman & Tunmer, 1991; Iversen & Tunmer, 1993; Stanovich, 1986; Tunmer, 1990; Tunmer, Herriman, & Nesdale, 1988). In their evaluation of "Reading Recovery", Center et al. (1995) found that students who had ineffective phonological processing skills on entry into the program were less likely to be successfully discontinued than students with some degree of skill.

Clay (1991b) argued that the "Reading Recovery Program" does address these skills in the writing component of the program and that the intervention has achieved its purpose, that is, to bring low progress children to the average level at an accelerated pace, and to maintain these effects. Further more, she argued that Glynn's study lacks validity because students were not randomly assigned to groups and average students were not used as the comparison group. They were matched as closely as possible to the "Reading Recovery" group and, therefore, could be regarded as low rather than average readers. When Pinnell, DeFord, and Lyons (cited in Center et al., 1995) addressed the problem of randomization they found that "Reading Recovery" students scored significantly higher

than those in the control group.

Evaluations of "Reading Recovery" indicate that its implementation impacts on other aspects of school. Research reports on its positive effect on reducing the numbers of students being labelled as learning disabled, placed in remedial classes and retained.

Lyons, et al.(1993), reported on a school district where, prior to "Reading Recovery", an average of ten students per year were retained in grade one. However, in the five years after the introduction of the program, only seventeen students were retained for that time period. Another school district in Ohio reported that 95 percent of the grade one children selected for "Reading Recovery" were candidates for retention at the beginning of the year. At the end of the year, after the implementation of "Reading Recovery", only ten percent of the students were actually retained (Gredler, 1997). Wasik and Slavin (1993), however, cautioned that students who participated in "Reading Recovery" were much less likely to be retained in grade one, but these effects were not evident after grade three. Pinnell, Lyons, & Jones (1996), argue that studies of effects after grade three would not be reliable because of the influence of other school variables on students' progress.

Lyons (1989) compared a group of "Reading Recovery" students who had been labelled as learning disabled with a group of students not learning disabled. She found that previous to the intervention, learning disabled students tended to rely exclusively on visual cues and ignored meaning cues, compared to the comparison group. After the intervention, students were effectively integrating the use of all cueing systems. The researcher concluded that "Reading Recovery" is an effective method to help disabled students "unlearn" ineffective reading behaviours. Lyons et al. (1993) also reported that, in a school district, the number of grade one students classified as learning disabled decreased from 36% to 8% over a five year period. During that time, 167 out of 207 students classified as learning disabled were discontinued from the "Reading Recovery Program"and reached the average of their classmates. The other 40 students, who had made slow but steady progress, were referred for testing and placed in a learning disabilities classroom.

Data from that same school district also supports that the implementation of "Reading Recovery" reduces the number of children placed in remedial programs. After the first year of implementation, approximately 50 percent of the students were phased out of grade one remedial programs, and over a three

year period only five percent of the total population of grades two to five qualified for remedial instruction.

The basic requirement of any intervention program is that it result in more learning than would be expected if the intervention did not take place (Shanahan & Bar, 1995). The research available on Clay's (1985) "Reading Recovery Program" indicates that its implementation surpasses these expectations. Students who are successfully discontinued from the program make immediate progress and they make as much, or more, gain than is apparent with comparison groups who received no special instructional assistance, or who were placed in traditional intervention programs. The investigations of the maintenance effects of "Reading Recovery" are not as conclusive as the data on immediate effects. These findings suggest that there is a need for ongoing support beyond grade one for low achieving students and that "Reading Recovery" will not entirely do away with the need for later special assistance for "at-risk" students (Shanahan & Barr, 1995). In support of this, Pikulski (1994) stateed that some "at-risk" students will need help beyond first grade and that educators can best meet their needs by providing intervention programs at various durations.

CHAPTER III

METHODOLOGY

Introduction

This chapter provides a description of the subjects, the basis of the selection of the subjects, and the tests and measurement procedures used in the collection and treatment of the data. This chapter also describes the procedure used in the implementation of the instructional intervention program according to the following characteristics: (a) overview; (b) planning the sessions; (c) running the sessions; and (d) discontinuance.

Subjects

The study was implemented in an elementary grade special education classroom, in a rural Newfoundland setting. The study involved 9 students, 6 girls and 3 boys, in grades 4 to 6. These children were assigned the pseudonyms Ben, Alice, Michael, Jane, John, Jill, Gail, Nancy, and Molly. At the start of the study, the subjects were in the following grades

and were of these approximate ages (i.e., grade;years:months):
Ben (4;9:1), Alice (4;9:2), Michael (5;10:3), Jane (5;10:2),
John (6;11:9), Jill (6;11:8), Gail (6;11:3), Nancy (6;11:6),
and Molly (6;11:0). The researcher, who was also the school's
special education teacher, interacted with and observed these
students during the study.

Basis of Selection

The students who participated in this study were
identified by their classroom teachers as making
unsatisfactory progress in reading. Informal classroom
assessments and teacher observation indicated that they were
reading below grade level and were unsuccessful with keeping
up with the average of their class. All subjects participated
in their respective classroom language arts program as
heterogeneous groups which were typical of most elementary
classes in the province of Newfoundland and Labrador. The
classroom programs followed the guidelines presented to the
schools by the Division of Program Development of the
province's Department of Education. The classroom programs
used the authorized texts of the Nelson "Networks" program for

grades 4-6.

Test and Measurement Procedures

Gates-McGinitie Reading Tests

The <u>Gates-McGinitie Reading Tests</u>, Second Canadian Edition, (1992) are group administered, normatively-referenced tests designed to determine the general level of reading achievement of individual students. The objective information obtained from the two subtests (i.e., vocabulary and comprehension) complements the teachers' evaluations to aid in determining the appropriate instructional levels for individual students, instructional effectiveness, and in measuring growth in reading achievement.

Test Level D4, Forms 3 and 4, were administered to the students in grade 4, while Test Level D5/6, Forms 3 and 4, were administered to the students in grade 5 and 6. These levels were chosen because, in the judgement of the researcher, they were the most accurate standardized measures

of reading achievement for mid-year and year-end assessments. Since all students had been administered Form 3 at the beginning of the school year by their respective classroom teachers, the researcher administered Form 4 at the beginning of the study on January 13,1997, and Form 3 as a posttest on June 4, 1997. The testing manual instructions were followed and adhered to during all testing sessions.

Peabody Picture Vocabulary Test-Revised

The Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981), is a norm-referenced, individually administered test of oral language receptive vocabulary. This test can be used for subjects whose ages range from 2 1/2 years to 40 years of age. It contains two parallel forms, L and M, with 175 test items on each form ranging in order of increasing difficulty. Students are shown plates containing four different pictures and are required to select the picture which best matches the target word spoken by the examiner. Raw scores are converted to standard score equivalents, percentile ranks, stanines and age equivalents. For the purpose of this study, percentiles and age equivalents were used.

Since vocabulary is a valid and reliable indicator of school success, this measure gives a quick estimate of scholastic aptitude (Peabody Picture Vocabulary Test-Revised, Teacher's Manual, 1981). All students were administered Form L of the test to determine each student's receptive language potential for achievement.

Informal Assessments

Quantitative assessment provides a limited, incomplete view of the student as a learner (McLain & Heaston, 1994). Valencia and Pearson (1987) suggest that instructional decision making should include a variety of informal assessment measures which tie evaluation and teaching together. Through informal assessment the teacher can examine learners' prior knowledge, attitudes, motivation, self-perceptions, and levels of skills and strategies. Information is gathered through systematic observation as learners engage in literacy activities. Specific measures used in this study include informal reading inventories, anecdotal records and running records which researchers deem to be effective vehicles for planning instruction and documenting progress

(Clay, 1991).

Stieglitz Informal Reading Inventory

The Stieglitz Informal Reading Inventory (1992), known as
the SIRI, is an individually-administered, non-standardized
test, designed to provide educators with important information
about students' reading behaviours. A major purpose of
administering the SIRI was to determine instructional levels
which aided the researcher in placing students in appropriate
reading materials. Results were also used to assess specific
reading behaviours that indicate students' strengths and
weaknesses.

The SIRI consists of the following informal assessment
tests: (1) Forms A and B of a "Graded Words in Context Test"
and Forms A and B of a "Graded Words in Isolation Test",
ranging in levels from preprimer to grade 8; (2) a "Dictated
Story Assessment Strategy", designed to be used with emergent
readers; and (3) four forms of a "Graded Reading Passage Test"
with Form A and C being expository passages and Forms B and D
being narrative reading passages. The reading level for each
set of passages ranges from grade 1 to grade 9. Accompanying

each passage is a set of six questions for use in assessing comprehension. The questions include those at the literal, interpretive and critical levels.

All components of the SIRI were administered to each student with the exception of the "Dictated Story Assessment Strategy", which is only necessary when students are reading below grade 1 level. The researcher administered the "Graded Words in Isolation Test", Form A, to assess how well students recognized words without the benefit of context. The results were used to determine students' level of sight vocabulary and decoding ability. The "Graded Words in Isolation", Form A, was then administered to provide the researcher with a means of comparing a student's ability to recognize words in context and in isolation. The objective of both graded words tests is to find the highest level at which the student is able to read every "target word" correctly. Administration is discontinued when a student misses 2 "target words". The highest level at which the student identified all words on the "Graded Words in Context" was used to select a starting point for the "Graded Reading Passages Test".

Form A of the "Graded Reading Passages Test" was used to determine listening comprehension levels, or levels of potential reading ability, Form B was used to determine oral

reading levels, with Form D utilized to determine silent reading levels. Four levels of reading were obtained on each Form (e.g., the independent level, the instructional level, the questionable level, and the frustration level). A description of each level and the criteria used to determine them include:

1. Independent level: Material at this level is read with little difficulty. Reading is fluent, expressive, and rhythmical, with few deviations from print. Word recognition is 99 percent or better and comprehension is 90 percent or better.

2. Instructional level: Material at this level is read with understanding as a result of instruction. Reading is fluent, expressive, and rhythmical with few deviations from print. Miscues do not affect meaning and deviations from print are usually self-corrected. Word recognition is between 95 and 99 percent and comprehension is between 75 and 90 percent.

3. Questionable level: Word recognition is between 90 and 95 percent and comprehension is between 50 and 75 percent. When this occurs, the teacher must use his/her best judgement to determine if the student's overall performance is closer to the instructional or frustration

level.

4. <u>Frustration level</u>: The student is unable to benefit from
    material at this level. Reading is laborious and
    nonfluent, and deviations from print affect meaning. Word
    recognition is below 90 percent and comprehension
    is less than 50 percent.

Results were recorded, summarized, and analyzed to form
conclusions about students' reading behaviours. Readers'
strengths and weaknesses were noted and used to guide
instruction.

Anecdotal Records

Anecdotal records are dated, informal observational
notations that describe significant student behaviours. They
provide documented, accumulated information over time, which
aids the teacher in determining students' strengths, needs,
self-perceptions, progress, and strategies used (Routman,
1994).

A binder divided into nine sections was used to record
information. The researcher made brief comments specific to

what each student was doing and needed to do while involved in reading and writing activities. The records served as benchmarks for noting student progress and guiding instruction.

For anecdotal records to be effective, they must be matched with good techniques for analyzing them. Rhodes and Nathenson-Mejia (1992) suggest that the following techniques be used when analyzing anecdotal records:

1. Making inferences about the students' reading and writing based on observations.

2. Identifying developmental trends or patterns within individuals.

3. Identifying strengths and weaknesses in learning and teaching.

The researcher incorporated these techniques when analyzing the anecdotal records.

Running Record

The "Running Record" is a powerful tool to keep track of children's progress and to guide instructional decisions. The

teacher sits beside the child, looking at the text, while the child reads independently. The teacher records the child's reading behaviour for analysis to determine the appropriateness of the text for that particular child, strategies being used by the student, such as monitoring and self corrections, and to determine what cues the student is using when an error is made or when self-correcting. The "Running Record" allows the teacher to make statements about how the child problem solves and uses strategies to resolve his/her own conflicts. After the "Running Record" the teacher selects the most powerful examples from the child's reading to further improve the reading process.

An advantage of "Running Records" is that teachers do not need to have a copy of the text while observing a student reading (Clay, 1985). The text read by beginning readers is much shorter and less complex than text read by older students. When students read longer, more complex text at a quicker pace, it is more difficult to record what the child is doing. The researcher found it necessary to mark student's responses on a copy of the page being read. Reading behaviours, such as substitutions, omissions, insertions, repetitions and self-corrections, were recorded. Students read independently and were given help by the researcher only when

they could not proceed. When students requested help, the researcher suggested that they try it again, and "TTA" (i.e., Try That Again) was recorded on the copy of text. When the student had to be told a word in order to proceed, "TOLD" was recorded to indicate that the researcher had provided the unknown word.

A "Running Record" was taken at most sessions with individual students. Each student was asked to read a portion of text that had been read previously. A "Summary Of Running Record Score Sheet" was used to record students' errors (see Appendix A). The "Accuracy Rate", "Error Rate" and "Self Correction Rate" were also scored using the Calculation and Conversion Tables designed by Clay (1985) (see Appendix B). Although all "Running Records" were immediately analyzed to direct the sessions, "Running Records" taken at the beginning and end of three books read by each student are the focus for discussion.

Collection of Data

Data were collected through the use of the tests and measurement procedures as described in the previous sections.

Treatment of Data

The data from the tests and measurement procedures are presented and discussed in this section. Pretest scores on the Peabody Picture Vocabulary Test-Revised were used to determine the level of potential development for each student. Pretest scores on the Gates-McGinitie Reading Tests were used to determine an approximate reading level for each student. Posttest scores for the Gates-McGinitie Reading Tests were used to help identify program intervention results. Comparison of the "Grade Equivalent" scores on pre- and posttests was used to measure any significant gains made by individual students over the period of the study. Group mean gains were also computed and recorded. Comparisons were also made of the gains made from the beginning of the year to the beginning of the study with gains made on the pre- and posttest scores. Information gained from the Informal Reading Inventory was used to verify the approximate instructional level for each student indicated by the Gates-McGinitie Reading Tests and to identify the existing strengths and weaknesses of each student. Teacher Anecdotal Records and "Running Records" were used to monitor the students development of effective reading strategies and to guide instruction. The primary focus was on

the contribution of the data toward evaluating the effectiveness of the instructional intervention program.

Procedure

Overview

During a period of approximately 19 weeks, from January 13, 1997 to May 30, 1997, the researcher implemented an instructional intervention program for nine students experiencing difficulties with reading. The goal of the program was to develop self-extending systems that would enable each student to read independently to the best of his/her ability. Each child's program was tailored to meet his/her individual needs based on his/her strengths rather than weaknesses. Lessons were guided by observations of behavioural evidence of reading strategies.

The researcher met with the students for four forty-minute periods in a six day cycle. The students were divided into four small groups. Two grade four students (i.e., Ben and Alice) formed one group, two grade five students (i.e.,

Michael and Jane) formed another group, while five grade six students were divided into two groups (i.e., John, Jill and Gail; and, Nancy and Molly). Students were grouped for ease of scheduling based on the regular classroom they were assigned.

Clay's (1985) <u>Reading Recovery Program</u> is designed to be used in a one-on-one situation with students experiencing reading difficulties after the first year of instruction. In this study "Reading Recovery" procedures were adapted to accommodate the needs of students in grades four to six in small group settings.

Planning the Sessions

To assist in the literacy development of at-risk students, teachers must discover what children can do with instruction that is theoretically-grounded, developmentally appropriate, and meaningful (Mefferd & Pettegrew, 1997). The researcher relied on her knowledge of the reading process and how best to support literacy development. Beach (1997) suggested that this knowledge is the key to improving reading performance. All sessions were driven by each student's strengths as indicated by assessments and observations of

reading behaviours. Lessons were not specifically planned for each session since instructional decisions are made "on the run" as teachers follow the child using ongoing observation, as well as accumulated knowledge about each child, to guide student-teacher interactions and the focus of attention during the lessons (Lyons et al.,1993). The researcher prepared herself for the sessions by becoming familiar with the lesson framework and the books that the students were reading. The books used in the instructional intervention program were taken from the school's resource center, from the students' collections, and from the classroom libraries. The researcher used current research on text readability and students' interests to determine which books were appropriate for individual students. Books were selected based on the students' interests and their ability to read a portion of the text with 90-95% accuracy.

Running the Sessions

Clay's (1985) <u>Reading Recovery Program</u> is a theoretically sound and comprehensive intervention which provides clear implications of the kind of support at-risk

students at any educational level need. The instructional intervention program in this study incorporates the philosophy of Reading Recovery and is based on the following premises:

1. Reading is a strategic problem solving activity in which the reader uses semantic, syntactic, and graphophonic cues along with their background knowledge to gain meaning from print.

2. The focus for intervention is on the development of independent, self-generating systems for promoting students' own literacy.

3. Reading and writing are interconnected.

4. Reading instruction should focus on the understanding of connected text rather than the study of isolated skills.

5. Children gain fluency and consolidate strategies through extended reading.

6. Children need to work with texts that are at their independent and instructional levels so they can have the opportunity to problem solve while reading.

7. Children's efforts to gain meaning from print should be carefully monitored so that teachers know what the students are trying to do, reinforce their strategy use and, if necessary, prompt the use of other available information.

8. Teacher-student interactions, within a socially supportive environment, provide the context for learning. High quality interactions must surround literacy activities.

9. Intervention should incorporate intensive engagements in authentic reading and writing activities.

Each students' program was guided by these premises. Instruction was individualized within a specific framework. The components of this framework included:

1. Reading Text

2. Sharing

3. Working With Words

4. Writing A Message

5. Taking A Running Record

6. Reading Outside The Scheduled Sessions

1. <u>Reading Text</u>:

Through extended reading children gain fluency and consolidate strategies (Pinnell, 1989). Each session started with the students reading silently from their books. They started reading from where they had left

off at their previous reading time. The researcher observed the students for on-task behaviour and was available for any help requested by the students. As the students were reading, the researcher spent a few minutes with each student as they read aloud a portion of his/her book. Observations were recorded and the researcher used opportune moments to reinforce or model effective strategies.

2. Sharing:

Gambrell (1996) suggested that discussion is the means by which children develop a deeper understanding of texts. The second component of the lesson involved the students discussing their books with the group. During this time the researcher supported their efforts, modelled a variety of ways to react to a book, provided students with background knowledge, or helped set purposes for further reading. Students were also encouraged to share a part of their book that they liked or supported a comment they had made. Any student who wanted to share a journal entry were also encouraged to do so.

3. <u>Working With Words</u>:

This component of the lesson was not needed at every session, however, the researcher worked with students in this area when problems arose. Instruction was usually provided on an individual basis, although group instruction was occasionally necessary.

4. <u>Writing a Message</u>:

Students need to learn to think about what they are reading and integrate it with what they already know (Kletzien & Hushion, 1992). During every session students independently wrote a journal entry as a response to their book. Entries involved retellings, discussions of how the book related to their own lives, predictions of what might happen next, suggestions of how a conflict could be resolved, and so on. Students were free to decide what type of entry they made. In this component of the program writing was used to explore and extend students' understanding of their reading. As students wrote, the researcher took a Running Record of each student's reading. If time permitted after the "Running Records", the researcher interacted with the students

while they were writing.

5. Taking a Running Record:

"Running Records" for each student were usually taken at every session. Occasionally the students ran into some difficulties with writing in their journals and time restraints did not permit taking a "Running Record" for every student. The students were asked to read from a part of the text that had been read previously. The researcher was a neutral observer recording students' responses.

6. Reading Outside of Scheduled Sessions:

All students exhibited an interest in reading their books at home and at "Sustained Silent Reading Time" in their respective classrooms. The researcher did not want to stifle this interest and encouraged the students to read outside their scheduled sessions.

Simply using the "Reading Recovery" framework and

engaging in recommended behaviours will not guarantee success. The teacher's role within the lesson framework is critical (Lyons et al, 1993). Teachers must have strong observational powers and be able to make instructional decisions based on their observations and what they know about each individual student. Clay (1991a)` argued that it is the teacher's responsibility to know the range of possible pathways to independent reading, to observe and analyze the behaviour of students and to respond to them in ways that support and extend effective learning. Teachers' responses are interconnected with the child's responses. They respond to what the child has done effectively when reading and direct attention to cues that are underused. Lyons et al. (1993) investigated the characteristics of effective teachers. They found that effective teachers:

1. Encourage and reinforce the child's use of all sources of information when reading: meaning, language and visual information. Less successful teachers tend to focus attention in unbalanced ways.

2. Teach intensively and cover more content within the lesson period.

3. Support the child's use of effective strategies and they require independent action on the part of the child.

4. Consider teaching to be assisting the child's problem solving. Rather than directly teaching strategies, the teacher, through conversation, supports the reader's use of effective strategies. The ultimate goal is for the reader to eventually take over the process.

The researcher incorporated these characteristics into her interactions with each student.

Discontinuance

"Reading Recovery" is not intended to be a long-term or permanent intervention. As students reach the level of performance of their classmates in the middle reading group their program is discontinued. If they receive 60 sessions without becoming successful readers, they are released from the program but are not considered discontinued (Wasik & Slavin, 1993).

The nine students who participated in this study did not meet this criteria. They were, however, released from the instructional intervention program because the school year was coming to an end. Although students did not achieve at a level

of the average in their class, the researcher was pleased with the gains made in their reading achievement.

Introduction

The evaluation of the study was based on data obtained on the assessment procedures utilized to identify and evaluate achievement in reading of the nine students who participated in this study. Both qualitative and quantitative data were collected using a variety of observational and measurement procedures administered before, during, and after their participation in an instructional intervention program for a period of approximately 19 weeks.

Contained in this chapter will be a presentation and discussion of the results of the Gates-McGinitie Reading Tests to quantify the mean gains in reading achievement, along with profiles of the nine students. The profiles discuss the individual scores of the Gates-McGinitie Reading Tests, results of the Peabody Picture Vocabulary Test-Revised (PPVT) as an indicator of potential achievement, and the informal measures (i.e., the informal reading inventories, anecdotal records, and "Running Records"). The intent of the informal measures was to identify strengths and weaknesses and to

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monitor the development of effective reading strategies.

Gates-McGinitie Reading Tests

Alternate forms of the <u>Gates-McGinitie Reading Tests</u> were administered to the nine students. Tests Levels 4 and 5/6, Form 4, were given as a pretest on January 13, 1997. Test Levels 4 and 5/6, Form 3, were given as a posttest on June 2, 1997. Grade equivalent scores were calculated according to the procedures recommended in the <u>Gates-McGinitie Reading Tests: Teacher's Manual</u> (1992). Grade equivalent scores available from the school on Levels 4 and 5/6, Form 3 administered in September 1996 were also used in the data analysis.

The results of the pretest (see Table 1) revealed that all students scored below grade level in both vocabulary and comprehension. The results of the posttest (see Table 1) revealed that all student were still below grade level in both subtests.

According to test norms, the results of the posttest revealed that the nine students showed a mean gain in vocabulary of approximately four months (i.e., 0.4), a mean

gain in comprehension of approximately eight months (i.e., 0.8) and a mean gain in the total score of approximately five months (i.e., 0.5). Test norms indicate that the average gains students made in vocabulary and comprehension for that period of time was approximately five months (i.e., 0.5). Four students showed gains exceeding 0.5 in vocabulary, six students showed gains exceeding 0.5 on comprehension and seven students achieved gains exceeding 0.5 on the total test score.

A comparison of the results from the regular September testing with the January pretesting revealed that the nine students showed a mean gain in vocabulary of approximately nine months (i.e., 0.9), a regression in performance of one month on comprehension(i.e., -0.1) and a total mean gain of four months (i.e., 0.4)(See Table 2). Five students made accelerated gains on the vocabulary subtest, one student made accelerated gains on the comprehension subtest, and two students made accelerated gains on the total test score. Test norms indicate that the average progress students made in vocabulary and comprehension for that period of time was approximately four months (i.e., 0.4).

Student Profiles

Student 1: Ben, age 9

Ben is in grade four. He has received help from the special needs teacher outside the regular classroom since grade one because of difficulties with reading, more specifically, his word recognition ability. Ben is a very friendly, out-going boy with an extensive oral vocabulary . He cooperated with the researcher during all sessions and consistently applied himself within the instructional setting.

Ben admitted that he did not read very much outside school. He said he did not like reading and that there was always something better to do. He enjoyed most outdoor activities and often talked about his plans for after school, such as skating, skidooing and ice fishing. When he did read, it was because his teacher assigned something from a textbook to be read at home. When asked what it was he did not like about reading, he said that he could not "figure out the words". Further questioning revealed that his main strategy for identifying words was sounding them out, but that he found

this hard to do.

Results of the SIRI indicate that Ben was reading independently at the grade one level. His score on the "Words in Context" test was 100% for the primer level but for Words in Isolation", no base level was found since the preprimer level was discontinued after two errors. On the oral reading passages, Ben's independent level was grade one for both word recognition and comprehension. No instructional level was found since grade two level was questionable for both word recognition and comprehension, and the grade three passages proved to be frustrating for him to read. His performance on the silent reading passages indicate an independent level for grade two, but a questionable level for grade three. Ben's potential for reading was at grade six level, indicated by his score on the listening comprehension passages.

Ben's score on the PPVT fell in the 75th percentile (see Table 3), suggesting a high average potential for receptive language ability. When his score was converted to an age equivalent, he achieved a level one year and three months above his chronological age. This measure, along with his performance on the listening comprehension passages of the SIRI, suggests that Ben's reading achievement was considerably lower than what would be expected of a student with his

language ability.

An analysis of running records and anecdotal records indicates that, at the beginning of the study, Ben was making inadequate use of context to predict text. Almost all miscues had some graphic similarities to the text but were neither syntactically nor semantically acceptable. His overreliance on visual cues at the expense of meaning was evident from responses such as "The gum scared and peered" for "The gum stretched and popped" and "Lock rose of the bubble gum dragged behind me" for "Long ropes of the bubble gum dragged behind me". His reading was slow and laborious and he pointed when reading, both silently and orally, suggesting that he was glued to the print and neglecting to use his strong knowledge of language to make meaningful responses. Reading for him was a word calling exercise rather than the construction of meaning. His miscues suggest that he was not retaining the essential meaning of the text. He tended, on a superficial level, to be a careful reader with most substitutions looking like the word being replaced. There were no omissions or insertions to indicate that he was trying to make the text sound like language.

Ben's self-correction rate at the beginning of the study was 1:12, with only one miscue leaving the intended meaning of

the text intact (see Table 4). During the first few sessions there was no evidence of him applying any fix-up strategies to correct unacceptable responses. He continued reading without acknowledging that what he had read did not make sense. However, when asked by the researcher if anything he had read did not sound right, he was able to point out each miscue that did not fit the text, indicating that he was monitoring his reading, but was failing to self-correct. He said he did not fix it because he just wanted to read on.

As the study progressed, Ben began to use all cueing systems in a balanced way to make acceptable predictions and to confirm or disconfirm what he had read. Miscues were of a higher quality than those at the beginning of the study and retained the meaning of the text. "I moved five more tins" for "I made five more trips", and "Have you ever wondered" for "Have you ever wished" indicate that he was beginning to make meaningful responses in the context of his prior knowledge of the story. As text difficulty increased, his error rate went from 1:8 at the beginning of the intervention program, to 1:43 at the end.

By the end of his first book he was beginning to apply fix-up strategies to resolve difficulties with text, such as rereading and self-questioning. When he read "Ever since I was

young, I believed interesting world stuff" for "Ever since I was young I've been interested in weird stuff", his substitutions and insertions were meaningful at the sentence and story level and created a syntactically acceptable sentence. When he continued reading, and read "I don't think I'm world myself" for "I don't think I'm weird myself", he vocalized, "No, that can't be world", and he reread back to the text where he had initially miscued on the word "weird" and self-corrected. His self-correction rate at the end of the study was 1:4 and an analysis of running records show that the miscues left uncorrected did not disrupt the meaning of the text.

Ben's gains on the <u>Gates-McGinitie Reading Tests</u> corroborate the qualitative data on his reading improvement (see Table 1). At posttesting, his score reflected a gain of two months (i.e.,0.2) on the vocabulary subtest, a gain of one year two months (i.e.,1.2) on comprehension, and a gain of nine months (i.e.,0.9) on his total score. His greatest gains were made on the comprehension subtest, suggesting that he was making more effective use of the available cues to construct meaningful text.

Student 2: Alice, age 9

Alice is in grade four and has been receiving support outside the regular classroom since grade one because of difficulties with reading, more specifically, her understanding of what she reads. She is a very quiet, serious student who works hard in school. She said she did not read during her leisure time, but did read what her teacher assigned. During the study period, she worked cooperatively with the researcher. She appeared to enjoy her books and was always anxious to share at group sessions.

Alice scored in the third percentile on the Peabody Picture Vocabulary Test, indicating that her potential for language ability is moderately low and may partially account for her difficulties with reading (see Table 3).

Results of the SIRI indicate that, at the beginning of the study, Alice's independent reading level was grade one, and her instructional level was grade two. This was consistent for both oral and silent reading and was comparable to her listening comprehension ability. She achieved a grade one independent level on "Words in Isolation" and a primer level on "Words in Context".

An analysis of running records and the researcher's

anecdotal records indicate that, at the beginning of the intervention program, Alice was using all cueing systems in a balanced way when predicting text. She had a good grasp of letter/sound relationship and used visual cues effectively. Most miscues were syntactically and semantically acceptable to the point of the miscue, however, there was little evidence that she was using language cues to monitor and confirm her reading. Miscues such as "The wind was blowing harder and I had started to rain", for "The wind was blowing harder and it had started to rain" and "I saw flashing of light" for "I saw flashes of light" are evidence of effectively integrating prior knowledge and context cues to predict text. These responses were acceptable to the point of the miscue, but her failure to self-correct suggests that she was not effectively monitoring what she read for semantic and syntactic acceptability.

Although Alice was slow to respond to instruction, and most miscues that changed the meaning of text were left unchanged until over halfway through the study, she did eventually become more efficient in monitoring her reading. Her self-correction rate went from 1:8 at the beginning of the study, when five of the miscues out of seven left meaning change, to 1:5 at the end of the study, when only one out of

four miscues left a meaning change, and that miscue was self-corrected (see Table 5). When she read, "She got all the tangles out of his mane and talked and combed them smooth" for "She got all the tangles out of his mane and tail and combed them smooth", she reread and corrected her miscue. Miscues also began to show a concern for making text sound like language, such as when she read, "I'm sure he'll settle in" for "I'm sure he's settled in". She was reconstructing the following text to fit what she had already read.

Alice read progressively more difficult text with consistent accuracy. Running records indicate that at the end of the study she was reading with 97% accuracy. Group discussions and journal entries verified that she was effectively constructing meaning from text. Her responses indicated that she was understanding what she read at the literal level, was able to integrate information from different parts of the books, but had difficulty making inferential responses.

A comparison of scores on the Gates McGinitie Reading Tests from pretest to posttest indicate a gain of six months (i.e.,0.6) on vocabulary, a gain of one month (i.e.,0.1) on comprehension, and a gain of six months (i.e.,0.6) on her total test score (see Table 1). Her gain on the vocabulary

subtest was two months above the group mean gains, however, her gain on the comprehension subtest was seven months below group mean gains. These results suggest that Alice achieved growth in understanding of what she reads below what would be expected of an average student during that time period.

Student 3: Michael, age 10.

Michael is in grade five. He has received the services of the special needs teacher since grade one because of difficulties with understanding what he read. Michael is a quiet, pleasant boy, who worked cooperatively with the researcher. He applied himself diligently in all scheduled sessions.

Michael did not read for the pleasure of getting into a good book. He said that he liked to read and that he had read "lots of books", however, when asked to tell something about these books he was unable to give much information about them. According to his classroom teacher, he went to the school's resource center almost every day to exchange his book, obviously without reading any of them entirely. At the beginning of the study Michael was reading three books, one

that was selected for the study, one for Sustained Silent Reading Time in his regular classroom and one that he was reading at home because "his mom wanted him to read every night". The researcher encouraged him to read one book at a time and as the study period continued, Michael was bringing his book back and forth with him. He started to make voluntary comments about things that happened in his book, especially if he found some humor in them. By the end of the study, Michael was eager to read his books and would come into the room and begin reading immediately. The researcher often found him sitting quietly reading before the session was due to begin.

Results of the SIRI indicate that Michael was reading independently both orally and silently at the grade 2 level. His ability to read words in isolation was comparable to his ability to read words in context when target words allowed for a delayed response. For oral reading, his instructional level for both word recognition and comprehension was grade 3. A passage read silently at this level was frustrating for him. Michael's potential for reading was at a level between grade 3 and 4, indicated by his scores on listening passages.

Michael's score on the Peabody Picture Vocabulary Test (see Table 3) fell in the 27th percentile, indicating a low-average potential for receptive language ability. When his

score was converted to an age equivalent, he achieved an age level 2 years below his chronological age. This measure corroborates his potential for reading suggested by the listening comprehension score of the SIRI, which was 2 years below his present grade placement. Proficiency in vocabulary correlates highly with reading achievement and Michael apparently had a deficiency in this area. Informal observations substantiated his scores on both measures. He used nonsense words when reading, did not know that his "Poppy" was his grandfather, and said he had never heard the word "frown" before meeting it in one the sessions.

An analysis of running records and anecdotal records revealed that at the beginning of the study Michael was having trouble constructing meaning from print. His ability to predict using syntactic and visual cues was evident, since most of his miscues were graphically similar to the text and were syntactally acceptable to the point of the miscue. Miscues such as "pogo chip bag" for "potato chip bag" indicate that he was relying more on visual cues to predict rather than on meaning cues. Reading for Michael seemed to be pronouncing words correctly rather than constructing meaning. His reliance on visual cues to the exclusion of meaning cues produced miscues that were nonsense words such as "Shivelware" for

"silverware" and "frone" for "frown". Many of his nonword substitutions suggest that he was trying to preserve the grammatical structure of the sentence, however, he was not using his prior knowledge of the story to construct meaningful responses.

Initially Michael was not confirming or disconfirming his predictions using semantic or syntactic cues. Miscues that were syntactically acceptable to the point of the miscue were often unacceptable at the end of the sentence. He read "Grandpa Noonie glanced down and the twitching pogo chip bag, then across the room" for "Grandpa Noonie glanced down at the pogo chip bag, then across the room". "And" was syntactically acceptable to the miscue but did not sound like language or make sense at the end of the sentence. Michael did not appear to be concerned about his reading not making sense. He made no effort to employ fix-up strategies, such as rereading, to correct these types of miscues.

As the study continued Michael began to show evidence of integrating all cueing systems to predict when he was reading. He continued to use his strength of sampling visual cues to make predictions, but he was gradually beginning to use meaning cues as well. As this was happening, his use of syntactic cues continued to become more efficient so that

almost 100% of miscues were acceptable to the point of the miscue. He read," I believe that taking over the haunted house at Adventureland would be an interesting change" for "I believe taking over the haunted house at Adventureland would be an intriguing challenge" and, "I put my glove out" for "I put out my glove", indicating that he was using his knowledge of language to proceed through the text. His miscues were of a higher quality than they were at the beginning of the study.

Michael slowly began to show evidence of monitoring his reading. By midway through the study when he made miscues that did not make sense or did not sound like language, he was self-correcting or at least making an effort to do so. His self-correction rate went from 0 at the beginning of the study to 1:3 at the end (see Table 6). Michael was using real words when miscueing, or when he did not know a word he would stop and say what he thought the word meant rather than put in a made-up word.

A comparison of Michael's scores on the Gates-McGinitie Reading Tests at pretest and posttest indicate significant development in reading achievement (see Table 1). He achieved a gain of one year five months (1.5) in vocabulary, a gain of one year one month (1.1) in comprehension with a total gain of one year three months (1.3) over the study period. This

quantitative data along with the qualitative data from anecdotal records and running records indicate that Michael had developed self-extending systems for more effective reading and had made gains above what would be expected of an average student for that period of time.

Student 4: Jane, age 10

Jane is in grade five. She has been receiving support from the special needs teacher since grade one because of difficulties with reading and understanding what she reads.

Jane's score on the Peabody Picture Vocabulary Test-Revised fell in the 42th percentile, giving her an age equivalent of nine years eight months, compared to her chronological age of ten years two months (see Table 3). This measure suggests that her average potential for receptive language ability would not account for the difficulties she was encountering with reading.

Results of the SIRI indicate that Jane was reading independently, both silently and orally, at grade two level. Her independent level for words in context was also grade two level, compared with a preprimer level for words in isolation.

Her instructional level for oral reading was grade five for comprehension, but grade three for word recognition. Most of her difficulties with the comprehension questions were those at that literal and critical level. On the silent reading passages, Jane achieved a grade four instructional level. Her potential for reading was between grades four and five, as indicated by her performance on the listening comprehension passages.

An analysis of running records and anecdotal records indicate that Jane had a positive self-image of herself as a reader. She said she enjoyed books and was a good reader because she knew most of the words. Her running records support her self-perceptions about reading. Most of her miscues were real words that were close approximations to the text, but were neither semantically nor syntactically acceptable to the point of the miscue. Miscues such as "I'll see curious" for "I see creatures" suggest that she was not selecting the more effective language cues to predict text, but instead was overrelying on visual cues. She also tended to ignore or insert punctuation and showed no evidence of recognizing that it interfered with the meaning of what she was reading.

At the beginning of the study, there was very little

evidence that Jane was monitoring her reading. Her self-correction rate ranged from 1:9 to 1:12 in her first book, with most miscues interrupting meaning at the sentence and story level (see Table 7). When inappropriate responses were read, she continued to read on, showing very little evidence that she recognized what she was reading did not sound like language or make sense. Her reading was fast and fluent, with few pauses or stops to reread or reflect on what she had read.

As the study progressed, Jane's reading showed some evidence of growth. She became more proficient at using graphophonic cues and miscues indicated some awareness of syntax in predicting text. Miscues such as "I talked a lot about my figure" for "I talked a lot about my future" indicate that she was using visual and syntactic cues more efficiently but was still neglecting to make her reading make sense at the sentence and story level.

Although Jane showed some improvement in using syntax to predict text, towards the end of the study she was still having difficulty using it to confirm what she had read. Such responses as "Boy, they thought of doing something like that" was syntactically acceptable to the point of the miscue, but the following text "really gives me the creeps" failed to confirm her predictions. Her self-correction rate at the end

of the study was 1:9, with most miscues interfering with meaning.

Jane's greatest gains on the <u>Gates-McGinitie Reading Tests</u> were on the vocabulary subtest (see Table 1). Her gain of one year (i.e., 1.0) compared to a regression in performance on the comprehension subtest of five months (i.e., -0.5) supports the information gleaned on the informal measures. That is, for Jane, reading continued to be accurate word identification rather than the construction of meaning.

Student 5: Nancy, age 11

Nancy is in grade six. She has been receiving the support of the special needs teacher since grade one because of difficulties with word identification and understanding what she reads. During the intervention program she proved to be a conscientious student who worked hard. She admitted that even though she found reading difficult, she did like to read. She said that the hardest part about reading was figuring out the words.

Nancy's score on the PPVT fell in the 25th percentile, suggesting that her potential for language achievement was in

the low average range and may account for some of her difficulties with reading. Running records and anecdotal records provide further evidence of her language inadequacies. She had difficulty recognizing such words as "pursed" and "auburn" which were obviously not in her listening-speaking vocabulary.

Nancy's performance on the SIRI indicated that her reading achievement was below her reading potential. She obtained an independent level on the grade one oral reading passage for both word recognition and comprehension, and a grade two level on the silent reading passage. Her instructional level on both silent and oral reading passages was between a grade two and grade three level. However, her performance on the listening passages suggests that her potential for reading is grade four level.

Running records and anecdotal records indicate that Nancy was a moderately proficient reader at the beginning of the study. She produced syntactically and semantically acceptable structures most of the time, but was not using all cueing systems efficiently. Miscues such as "I'm sick of the way they talk to each other thought me", for "I'm sick of the way they talk to each other through me", and, "He was booked and fingerpainted", for "He was booked and fingerprinted",

indicates that she tended to rely heavily on graphophonic cues. Her self-corrections on such miscues is evidence of her pervading concern for meaning, however, she was not using her prior knowledge and the preceding context effectively to predict text. When she came to a word she did not know, she failed to employ any effective strategies. She would stop and try to sound out the word and would not proceed until the researcher encouraged her to skip the word and read on.

Nancy's self-correction rate and her attempts to self-correct indicate that she was concerned about the construction of meaning, however, she was restricting herself to less productive sources of information in the text. When she read "We stopped in front of some old black serias that was going on both sides of the fence" for "We stopped in front of some old black spruce that grew on both sides of the fence", she went back to the word "spruce" and attempted to self-correct by sounding it out. Her failure to do so did not lead to other fix-up strategies, such as rereading the preceding text for semantic and syntactic cues, even though she recognized that what she had read did not sound right. Further evidence of her overreliance on visual cues was her self-corrections on miscues that were semantically and syntactically acceptable at the sentence and story level.

As the study proceeded, Nancy became a more proficient reader and low quality miscues gave way to high quality miscues when predicting text. Miscues such as "my orange-striped hair" for "my orange-stained hair", and "pieces of two-by-four shaped to make a ladder" for "pieces of two-by-four spaced to make a ladder" suggest that she was using background knowledge and the preceding text to make more acceptable predictions. When she came to a word she did not know, she would reread whole sentences as if searching for language cues to predict text rather than depending solely on the visual cues.

Nancy's self-correction rate indicates a growing control over the reading process. It remained consistently at 1:4 in her first book, but as the material became increasingly more difficult, it went from 1:6 to 1:3 in the second book and from 1:10 to 1:3 in the third book (see Table 8). Responses that were semantically acceptable at the sentence and story level were often left unchanged and by the end of the study 100% of miscues that disrupted meaning were successfully corrected.

A comparison of Nancy's scores on the Gates-McGinitie Reading Tests at pretest and posttest provides further evidence of her reading growth (see Table 1). She achieved a gain of only one month (0.1) on the vocabulary test, but a

gain of one year nine months (1.9) on the comprehension subtest and a total gain of nine months (0.9), suggesting that she was moving towards the integrated and flexible use of all cueing systems in the construction of meaning.

Student 6: Molly, age 11

Molly was in grade six. She had been receiving extra help from the special education teacher since grade one because of difficulties with word recognition and comprehension. Molly said she liked reading and was not aware that she had any difficulties with it. She said she read in her leisure time and was able to summarize some of the books that she had read.

Molly scored in the 14th percentile on the Peabody Picture Vocabulary Test-Revised, giving her an age equivalent of nine years compared to her chronological age of eleven years (see Table 3). Her performance on this measure suggests that her low average language ability may account for some of her difficulties with reading.

On the SIRI, Molly achieved a grade one independent level on the "Graded Words in Context" and a primer independent level on the "Graded Words in Isolation" test. For oral

reading, her independent level for word recognition was grade two, however, her comprehension score fell in the questionable range. Her independent level on the silent reading passages was grade two, while a grade three passage was frustrating for her. Molly's performance on the listening comprehension passages indicated that her potential for reading was grade three level.

An examination of running records and anecdotal records suggest that, at the beginning of the study, Molly was a nonproficient reader. She read very slowly and laboriously, and constantly pointed when she read. Her reading was characterized by constant repetitions, even when what she read made sense. When predicting text, she failed to make effective use of language cues to produce responses that were semantically and syntactically acceptable. Most miscues were close approximations to the visual word, but often did not sound like real language or make sense. She read, "I don't know you were going to play until I got there", for "I don't know who we're going to play until I get there", and " I was doing over in pain", for "I was doubling over in pain". These kinds of miscues suggest that she was overrelying on visual cues to predict text and failed to integrate the use of the more effective language cues. When she came to a word she did

not know, her main strategy was to try to sound out the word rather than reread or read ahead in search of other cues. When she read "scrouch" for "stomach" and "kissually" for "casually", it was apparent that she knew these responses did not sound right but she did not make any attempts to produce more meaningful responses. When the researcher asked her if there was anything else she could try, she responded, "I don't know".

Initially, Molly was just as ineffective in using semantic and syntactic cues to confirm or disconfirm her predictions. Most miscues such as, "You ready now how to handle the bike" for "You really know how to handle that bicycle", were unacceptable at the sentence and story level, but were left uncorrected. She did regress to self-correct "bike", further indicating her attention to graphophonic cues.

As the study progressed, Molly began to make more effective use of semantic and syntactic cues. Where the main cueing system used at the beginning of the study were the visual cues, there was a gradual emergence of her use of meaning and language cues to predict text, until, by the end of the study, most miscues were semantically and syntactically acceptable at the sentence and story level. Higher quality miscues such as "The disgracing mouse" for "The disgusting

mouse", and "All the couches and chairs were covered with white sheets" for "All the couches and chairs were draped with white sheets", are evidence that Molly was using prior knowledge and the preceding context to make meaningful predictions when reading. When she came to a word she did not know, she often skipped the word and self-corrected at the end of the sentence. When she had difficulty using the context to identify words she would attempt to make meaningful responses. For instance, when reading, "Let's find out if this place is habitable or not", she had difficulty with the word "habitable". When she reread the sentence and was still unable to respond, she said, "I don't know that word, but I think it means suitable". This kind of behaviour suggests that Molly was accepting full responsibility for her own perceptions and for achieving an accurate understanding of what she read.

Towards the end of the study, Molly was using more effective and efficient strategies to recover meaning when it was disrupted. Her self-correction rate improved from the beginning to the end of her first two books, going from 1:5 to 1:3, and from 1:7 to 1:4 (see Table 9). At the beginning of her third book, her self-correction rate was 1:6, but even though it decreased to 1:7 at the end, only two of the miscues

were unacceptable, with one of them corrected and the other attempted. An examination of her corrections indicate that Molly was becoming successful in using language cues to retain the essential meaning of text.

A comparison of Molly's scores on the <u>Gates-McGinitie Reading Tests</u> at pretest and posttest suggest that her gain of four months (0.4) on the vocabulary subtest were comparable to the group mean gain of four months (o.4) (see Table 1). A gain of two years six months (2.6) on the comprehension subtest was significantly greater than the group mean gain of eight months (0.8). Her total gain for the study period was one year four months (1.4) compared to the group mean gain of five months (0.5). This quantitative data corroborates the information gained from the qualitative data regarding Molly's effective, and more efficient, use of all cueing systems to construct meaning from text.

Student 7: Gail, age 11

Gail is in grade six. She has been receiving support from the special needs teacher since grade one because of difficulties with understanding what she reads. Although she

did not resist reading when it was required of her, she indicated that she did not enjoy it and would prefer to do other things in her spare time. She was a pleasant child who worked cooperatively with the researcher throughout the study period.

Gail scored in the third percentile on the Peabody Picture Vocabulary Test-Revised, giving her an age equivalent of seven years, eleven months, which was three years, four months below her chronological age (see Table 3). This moderately low score would suggest that her potential for language proficiency is limited and would account for her difficulties in understanding connected text. Specific reading behaviours, such as use of nonsense words, confirm her limited language ability.

Her potential for reading was grade three, as suggested by her performance on the listening comprehension subtest. This was consistent with her score on the PPVT. On the oral reading passages, her independent level for word recognition was grade three, and she achieved an instructional level for grades four, five and six, suggesting that her word recognition skills were adequate. An independent level for comprehension achieved on grade three, four and five passages and an instructional level found on a grade six passage

suggests that Gail is reading beyond her ability as indicated by the PPVT and her listening comprehension score. Her responses to the comprehension questions indicate that she understood what she was reading at the literal level but had difficulty at the interpretive and creative levels.

An analysis of running records and anecdotal records revealed some noteworthy features. Gail read with fluency and appropriate intonation. At the beginning of the study, most of her miscues indicated a concern for syntactic acceptability in predicting text. Such responses as, "She marvelled at the streets turned white and clean" for "She marvelled at the way the streets turned white and clean", and "He's just as big as me" for "He's just as big as I am", suggest that she was using her knowledge of language structure to proceed through the text. When she came to a word she did not know, she independently applied effective strategies, such as rereading to search for additional cues, to help her identify the word. However, she usually responded with a word that was a close approximations to the text and was syntactically acceptable, but did not retain the meaning, suggesting that she was not using her prior knowledge of the story to predict text.

Although Gail was using syntactic cues to predict text, she was not consistently using them to confirm or disconfirm

her reading. Miscues that were syntactically acceptable to the point of the miscue were left uncorrected when they were not confirmed by the following text. Miscues such as, "She had her mom lived" for "She and her mom lived", and "When she glanced out the steamy window over the sink." for "Then she glanced out the steamy window over the sink.", were left uncorrected.

As the study progressed, Gail was still using nonsense words in predicting text, however, she was making greater efforts to construct meaning. When she read "It's not a shimmie" for "It's not a scheme", and "spectackles" for "spectacles", she paused to tell the researcher what the words meant but admitted to not having heard these words before. This strength, of recognizing the meaning of words that were not in her listening/speaking vocabulary, supported her efforts to construct meaning while reading.

Midway through the study Gail was reading increasingly more difficult text with increasing accuracy (see Table 10). Her self-correction rate also improved, with most miscues left uncorrected leaving the sense of the story intact.

Results of the Gates-McGinitie Reading Tests support the information gained on the informal measures (see Table 1). Her gain on the comprehension subtest, which was one month greater than the group mean gains, indicate that Gail had

become more proficient at constructing meaning when reading.

Student 8: John, age 11

John was in grade six. He has been receiving support from the special needs teacher since grade one because of difficulties in understanding what he reads. John was not always cooperative during the study sessions. He resisted reading, had difficulty finding a book that he was interested in, and displayed a general disinterest in group interactions.

John scored in the 16th percentile on the <u>Peabody Picture Vocabulary Test-Revised</u>, giving him an age equivalent of nine years, eight months compared to his chronological age of eleven years, nine months (see Table 3). His performance on this measure suggests that his potential for reading achievement falls in the low average range and may account for his difficulties.

On the SIRI, John achieved a grade three independent level on the "Words in Context" subtest. His independent level on the primer word list of the "Words in Isolation" subtest is evidence that word analysis skills are well below grade level. John's independent level for word recognition and

comprehension for the oral reading passages was grade four level. On a grade five passage, word recognition was instructional level, however, his comprehension fell in the questionable range. On the silent reading passages, John achieved an independent level on a grade two passage, while his instructional level fell between grades three to five. His grade two listening comprehension level indicates that his reading achievement is comparable with a level expected of a student with his language potential.

At the beginning of the study, John was easily frustrated when he had difficulty reading from his book. He would say "This is too hard, I don't know the words", even though the researcher had determined that his book was at his instructional level. Initially the researcher had to spend considerable time supporting his reading and encouraging effective use of cues and strategies.

An examination of his miscues indicates that John was an effective reader. He used preceding syntactic and semantic context to predict what was coming next, which often resulted in miscues, but ones that fit the grammar and meaning of the preceding text. Miscues that remained uncorrected such as, "They shook hands and clinched it" for "They shook hands to clinch it", indicate that he was effectively constructing

meaning when reading and was making efficient use of all cueing systems. John's self-correction rate was consistent throughout the study (see Table 11). An analysis of his self-corrections indicate that unacceptable structures were usually corrected and miscues that retained the meaning of text were left uncorrected. Generally, he was consistently effective in using the following syntactic and semantic context to confirm or disconfirm his predictions.

The researcher concluded that John's main problem with reading was his negative self-concept and his lack of confidence in himself as an effective reader. During the sessions, when he was successful in identifying a troublesome word, he would look at the researcher and ask, "Is that right?". He was constantly looking for confirmation that he was reading accurately.

Towards the end of the study, John appeared to recognize that good readers often make miscues, and that retaining the essential meaning of text was more important than 100% accuracy. When he completed his first book, he was very excited and informed the researcher that it was the first book he had read completely. After that, there was a notable change in his attitude towards reading. Although he sometimes had to be encouraged to begin reading, he often resisted stopping

when it was time to move on to other components of the session because he reported that he was at a good part and wanted to find out what was going to happen next.

A comparison of John's scores on the Gates-McGinitie Reading Tests indicate that, from pretest to posttest, he achieved a gain of six months (0.6) on vocabulary, an eight month (0.8) gain on comprehension, and a gain of seven months (0.7) on his total test score (see Table 1). Qualitative data confirms his growth in self-confidence as a reader as he demonstrated the effective and efficient use of reading strategies.

Student 9: Jill, age 11

Jill was in grade six. She had been identified in grade one as having difficulties with understanding what she had read, and had been receiving support outside the regular classroom since that time. She said that she liked reading and had read "lots of books". She was able to discuss her books at a literal level, but the subtleties of text escaped her. Jill was a pleasant, but quiet child, who cooperated with the researcher through the study period.

Jill's score on the <u>Peabody Picture Vocabulary Test-Revised</u> placed her in the sixth percentile, with an age equivalent of eight years, six months compared to her chronological age of eleven years, eight months (see Table 3). This moderately low score suggests that her limited capacity for language proficiency may account for her difficulties with understanding what she reads.

Results of the SIRI indicate that Jill was reading and understanding independently at grade two level for both silent and oral reading. Her listening comprehension scores were somewhat erratic. Passages at grade one and two levels were frustrating for her, but she achieved 100% accuracy for comprehension on a grade three passage. These results suggest that Jill was able to understand text at grade three level when she could relate it to already existing schema.

An examination of running records and anecdotal records indicates that Jill was not a proficient reader. When predicting, she exhibited a low level of proficiency in selectively using the language cues available in the text. Miscues such as, "Dad's place has always been neither than ours" for "Dad's place has always been neater than ours", and "this bit of pieces" for "this bit of praise" are evidence of her tendency to rely heavily on visual cues at the expense of

meaning. Miscues were usually semantically and syntactically unacceptable to the point of the miscue.

Jill's failure to correct, or even attempt to correct, unacceptable miscues, indicates her inability to monitor ongoing comprehension. Miscues such as, "She looked forward to the being of school" for "She looked forward to the beginning of school", were left uncorrected, while acceptable miscues such as, "Now I spend part of the time with him" for "Now I spend part of the time with Dad", were corrected. Reading for Jill appeared to be identifying words correctly rather than a meaning gaining process.

Jill was slow to respond to instruction and towards the end of the study period she was still exhibiting characteristic behaviours of an inefficient reader. She continued to rely heavily on visual cues to predict text and most miscues which were semantically and syntactically unacceptable at the sentence and story level were left uncorrected. On her final running record of her third book, her self-correction rate was 1:0, with most of the miscues interfering with meaning (see Table 12). She did, however, demonstrate some concern for meaning. When she could not pronounce "Lottie", she said that it was the dog, and when she read, "Calib dust into tears" for "Calib burst into tears" she

reread the sentence using a more acceptable response, "bust". As sentence length and vocabulary difficulty increased, she was less effective with self-correction.

A regression in performance, from pretest to posttest, on the <u>Gates- McGinitie Reading Tests</u> support the information gained on informal measures (see Table 1). Jill was not yet independently using effective strategies to construct meaning when reading.

Summary

Proficiency in reading allows individuals to become productive members of society. Schools view the task of fostering this proficiency as a high priority.

Before they start school, children make discoveries about the forms and functions of written language through active engagement with their social and cultural worlds. As they enter the more formal learning contexts of school, literacy activities are often distanced from the learning practices of society outside of school. As a result, reading for some children is not perceived as a meaningful activity, and they fail to make expected progress. Failure in learning to read effectively in school is the most frequent criteria used to refer students to some support program. However, research suggests that these intervention programs, which are usually influenced by "deficit models" of reading and "reductionist" theories of learning, are mainly unsuccessful. Instruction is dominated by low-level reading skills, a limited amount of time is spent on real reading, and students fall farther and

farther behind their classmates.

Current perspectives on literacy development are influenced by "social constructivist" theories of learning. Reading is viewed as the students' construction of meaning as they engage in whole activities that are tied to authentic texts. Rather than achieving proficiency with discrete skills, students must master the process of reading by developing inner control over the cognitive processes needed to successfully gain meaning from print. This control is fostered through the social interactions of the classroom. As teachers and students engage in activities and participate in classroom discourse, literacy is constructed. The role of the teacher is critical in learning. Working within the students' "zone of proximal development", they must demonstrate, and prompt through appropriate questioning, the cognitive processes and self-regulatory strategies that support students in their literacy learning.

Clay's (1985) "Reading Recovery Program" reflects current philosophies of reading and how to foster its development in young children. It is designed to be used in a one-on-one situation, with grade one students experiencing difficulties with reading. The goal of the program is acceleration so that students can catch up with the average group in their class,

and thus, profit from regular classroom instruction.

This study investigated the effects of an instructional intervention program founded on the principles of Clay's (1985) "Reading Recovery Program". Modifications were made to the program procedures to meet the demands of small group instruction with older children. Nine elementary school students, in grades four to six, participated in the study for a period of nineteen weeks. The intervention program was implemented from January 13, 1997 to June 3, 1997, in an elementary special education classroom, by the special education teacher, who was also the researcher. The nine students received the benefits of the regular classroom language arts program and participated in the intervention program for four forty minute periods in a six day cycle.

Prior to the program implementation, the researcher administered the Peabody Picture Vocabulary Test-Revised to determine each student's potential for reading achievement. An informal reading inventory was also administered to gain information on the students' specific strengths and weaknesses. This information obtained was used to guide the implementation of the instructional intervention program.

The goal of the program was to accelerate reading achievement and to foster the independent use of effective

reading strategies. Students were engaged with books that were at their reading and interest level. All activities required students to read, discuss, and write connected text. When it was necessary to provide instruction at the word level, the researcher ensured that it was always returned to its meaningful context.

The researcher used formal and informal measures to determine the effectiveness of the instructional intervention program. These were: (1) <u>Gates-McGinitie Reading Tests</u>; (2) "Running Records" and anecdotal records.

The major question underlying this study was:

1. Will the intervention program implemented in this study improve the students' reading achievement in the following areas:

    (a) vocabulary and comprehension, as measured by the <u>Gates-McGinitie Reading Tests</u>?

    (b) independent use of effective reading strategies, as measured by the daily "Running Records" and anecdotal records?

Gates-McGinitie Reading Tests

Alternate forms of the <u>Gates-McGinitie Reading Tests</u> were administered to the nine students at pretest and posttest. Test Levels 4 and 5/6, Form 4 were administered on January 13, 1997 and Levels 4 and 5/6, Form 3 were administered on June 3, 1997. Grade equivalent scores on both forms were compared to determine gains made by each student. The group mean gain was also computed and recorded. Results were used to measure growth in reading achievement and the effectiveness of the instructional intervention program. Scores achieved on Levels 4 and 5/6, Form 3, which were available from the regular September testing, were used to compare the individual gains and the group mean gain from September, 1996 to January, 1997 with the gain made from January, 1997 to June, 1997.

Grade equivalent scores attained by the students at pre- and posttest on the comprehension subtest indicate a mean gain of eight months (i.e., 0.8). On the vocabulary subtest, a group mean gain of four months (i.e., 0.4) was attained. A mean gain of five months (i.e., 0.5) was achieved on the total test score during the 0.5 school years of this study. Four of the nine students made accelerated gains on the vocabulary subtest, that is, according to test norms, they made progress

exceeding the gains made the average student for that time period. Six students made accelerated gains in comprehension, and seven students made accelerated gains on the total test score.

Grade equivalent scores attained by the students on the comprehension subtest of the September testing indicate that by January the group had shown a regression in performance of one month (i.e., -0.1). On the vocabulary subtest, a mean gain of nine months (i.e., 0.9) was attained. A mean gain of four months (i.e., 0.4) was achieved on the total test score during the 0.4 school years of that time period. Five of the nine students showed a gain on the vocabulary subtest that, according to test norms, exceeded the gain made by an average student for that time period. One student made accelerated gains on the comprehension subtest, and two students made accelerated gains on the total test score.

Anecdotal records and Running records

Qualitative data obtained from anecdotal records and running records was used to corroborate and refine information gained on the pre-study assessments, to guide instruction and

to determine the effectiveness of the instructional intervention program.

Throughout the study, the researcher took running records at most sessions with each student. These records were analyzed to determine what cues were being used or underused to predict text, what strategies students employed in attempts to resolve their difficulties, and how effectively they were integrating all cueing systems to confirm or disconfirm their reading.

Anecdotal records were compiled regularly on individual students to note behaviours of students that indicated growth in literacy. Information was recorded at each session pertaining to the reading, writing and speaking behaviours of the students. An examination of anecdotal records revealed important information about the students' perceptions of their reading and of the strategies they believed they were using efficiently.

Information gleaned from these informal measures suggest that, at the beginning of the study, the nine students exhibited varying degrees of proficiency in reading connected text. All students used "sounding out" as the main strategy to identify an unknown word. The miscues made by seven students suggested that they had a relatively low level of proficiency

in integrating all language cueing systems to predict text. Miscues that were graphically similar to the text but failed to retain semantic and syntactic acceptability were usually left uncorrected. Their low self-correction rate of unacceptable miscues suggest that these students failed to monitor their reading.

One student (i.e., Alice) did show some degree of proficiency in integrating all cueing systems when predicting text. Most of her miscues indicated an awareness of semantic and syntactic acceptability to the point of the miscue, however, when the following context failed to confirm her predictions, very little effort was made to apply any effective "fix-up" strategies. One student, John, appeared to use all cueing systems and reading strategies when reading, however, his apparent lack of confidence in himself as a reader interfered with their efficient use.

By the end of the study, all but two students (i.e., Jane and Jill) increased their proficiency in the use of language cues and reading strategies, indicating a growing control of the reading process. Their overreliance on visual cues gave way to the integration of language and meaning cues when predicting text, and responses that did not fit the following text were self-corrected, or at least attempted. Students

showed a general improvement in their ability to monitor their reading and were attempting to make the text "sound like language" so that it made sense. Although two students continued to have difficulty in independently using effective reading strategies to read, they did exhibit evidence of becoming aware of the need to read for meaning and, when supported, they could read strategically.

All students, with the exception of Jill, read increasingly more difficult texts with at least a 95% degree of accuracy, and self-correction rates increased for miscues that were unacceptable at the sentence and story level.

Conclusions

This study investigated the effectiveness of an instructional intervention program designed to improve the reading achievement of nine elementary school students experiencing difficulties with reading. Clay's (1985) "Reading Recovery Program" provided the foundation for this intervention program. Instruction was individualized in a specific framework, with the focus on developing self-extending systems that would allow each student to gain

control over the reading process. The researcher used her knowledge of current perspectives on language and learning to guide interactions with the students.

During the course of the study, anecdotal records and running records revealed that most students were becoming more proficient with using effective strategies to gain meaning from print. At the beginning of the study there was a general overreliance on visual cues and students had reported that their main strategy for identifying words that they did not know was "to sound them out". Language cues were used in some cases to predict text, but were generally underused in monitoring and self-correcting. By the end of the study, students had become more proficient at integrating language cues to predict text and to confirm or disconfirm what they had read. Students' perceptions of the reading process and what strategies they were using also developed over the study period. Interest in reading inside and outside of school, input into selecting books, conversations about literature, and discourse about how they fixed-up text, are all indicative of student empowerment with their own literacy development.

Quantitative scores on the <u>Gates-McGinitie Reading Tests</u> at pretest and posttest indicated that all but two students made gains exceeding the expected gains of an average

student for that time period on the total test score compared
to two students making accelerated gains on the September to
January testing. A comparison of the group mean gain for the
study period with the group mean gain for the period preceding
the study (i.e., September to January), indicated that the
gain during the study period was less on the vocabulary
subtest, but greater for the comprehension subtest.
Considering that the instructional practices of this study
focused on the development of reading as the construction of
meaning, these gains reflect the positive effect of the
instructional intervention program on the students' growing
awareness that reading is a "meaning seeking process" and not
just accurate word recognition.

Although the findings of the present study did not
support the acceleration of students' learning up to the
average of their classes, all students made gains in their
ability to independently use effective reading strategies to
gain meaning from print, and all but one student made positive
gains on the Gates-McGinitie Reading Tests from pretest to
posttest.

Implications

Traditional remedial programs have failed to address the problems "at-risk" students are experiencing with reading achievement. Educators must strive to develop more effective approaches that will support the literacy development of this population of students.

Clay's (1985) "Reading Recovery Program" is recognized by educators and researchers as a theoretically sound and comprehensive intervention program that addresses this need. Research shows that, as well as being effective with "at-risk" beginning readers, it also provides clear implications for the kind of support all "at-risk" students require at any educational level.

The lesson framework of Reading Recovery is not a formula for success. Simply using it to design an instructional program will not guarantee acceleration of students. Intervention programs implemented to meet the needs of "at-risk" students must also incorporate the underlying principles of language and learning which serve as the foundation of the "Reading Recovery Program". This study found that students responded favorably to an instructional intervention program when the design and theoretical foundations were consistent

with those of Reading Recovery.

To be successful, intervention programs must respond to current understandings of the reading process, how children learn to read and what instructional strategies best facilitate this development. Specifically, instructional programs for all students, especially for those identified as "at-risk" must recognize that:

1. Reading is a problem-solving process, whereby readers construct the author's meaning and, at the same time, build meaning for themselves. As students interact with text, they develop proficiency in using the specific strategies of predicting, confirming and integrating. Language cues are selected to predict text, and based on their language knowledge and background experience, readers confirm or disconfirm their predictions by checking syntactic and semantic acceptability. Readers integrate what they are reading into their existing schema.

2. Learning to read is fostered in meaningful contexts utilizing whole texts and "real" reading materials (i.e., children's literature books). This means that there must

be a shift away from hierarchical, skills-based instruction, to practices more consistent with holistic views. Reducing the process of reading to the mastery of skills makes reading more difficult for troubled readers.

3. Learning is a social phenomenon. Readers learn to construct meaning through the language of social interactions. As teachers and students are involved in literacy activities, the learners are able to complete tasks with the help of the teacher, which they would otherwise not be able to do alone. Initially, the students are supported through conversation with the teacher, but they gradually develop ownership of effective strategies which allows them to read independently.

4. The role of teachers is critical to the success of intervention programs. They must abandon all preconceived ideas about what students need to know in order to learn to read. They must effectively follow the students' leads and support their performance and construction of meaning, rather than explicitly providing knowledge and information. Teachers' responses are interconnected with

the students' responses. They respond to what the child is trying to do when reading, and direct attention to cues that would be helpful. Teachers must incorporate a coherent theory of learning and reading with knowledge of what each student can do, to make instructional decisions "on the run" that support and extend effective learning. Knowledge of literacy development and literacy processes guides decisions on where to go next, when to draw students' attention to which features of text, and how to model, demonstrate, and explain strategies in a way that students can develop ownership of the cognitive processes necessary for effective reading.

All activities and decisions made within an instructional framework for "at-risk" students must be influenced by, and consistent with, current perspectives of reading and learning. Schools that want to provide effective interventions must implement programs that reflect these perspectives.

This study also raised some areas of possible interest for further investigation:

1. What would be the maintenance effects for the nine students who participated in the study? Since all students acquired varying degrees of proficiency in using effective reading strategies independently, would their independence lead to continued progress until they could function with the average students of their class?

2. Since Clay (1985) advocated one-on-one tutoring as essential for young children's success in the "Reading Recovery Program", what would be the effects of using the instructional intervention program implemented in this study with elementary school students in a one-on-one instructional setting? Would gains made on the quantitative and qualitative measures be greater than those attained in a group setting?

3. Early intervention is the key to the prevention of reading difficulties. However, some educators argue that the implementation of the "Reading Recovery Program" is not cost effective, and that moderate gains made with groups of students, during a specific time period, would be more economically feasible than working individually with a small number of students during that same time

frame. What would be the effects of using the instructional intervention program implemented in this study with small groups of students at the beginning of grade one?

4. Although it was not a focus of investigation, a lack of cohesiveness between the regular classroom and the remedial program is a criticism of "pull-out" programs. What would be the effects on students' reading achievement if the researcher ensured that the principles and practices of regular classroom instruction were consistent with those of the instructional intervention program?

While these areas are outside of the specific focus of this study, they might prove to be of relevance as the focal point for further research studies.

References

Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.

Allington, R.L. (1980). Teaching reading in compensatory classes: A descriptive summary. Reading Teacher, 34, 178-183.

Allington, R.L. (1983). The reading instruction provided readers of differing reading abilities. Elementary School Journal, 83, 548-559.

Allington, R.L. (1987). Shattered hopes: Why two federal reading programs have failed to correct reading failure. Learning, 16, 60-64.

Allington, R.L. (1994). What's special about special programs for children who find learning to read difficult? Journal of Reading Behavior, 26, 1-21.

Allington, R.L. (1995). Literacy lessons in the elementary schools: Yesterday, today, and tomorrow. In R.L. Allington & S.A. Walmsley (Eds.), No quick fix: Rethinking

literacy programs in America's elementary schools (pp. 1-15).
New York: Teachers College Press.

Allington, R.L., & Broikou, K.A. (1988). Development of
shared knowledge: A new role for classroom and specialist
teachers. The Reading Teacher, 41, 806-811.

Allington, R.L., & Cunningham, P.M. (1996). Schools that
work: Where all children learn to read and write. New York:
Harper Collins College Publishers.

Allington, R.L., & McGill-Franzen, A. (1989). Different
programs, indifferent instructor. In A. Gartner & D. Lipsky
(Eds.). Beyond separate education: Quality education for all
(pp. 75-98). Baltimore: Brooks Publishing Company.

Allington, R.L., & McGill-Franzen, A. (1995). Flunking:
Throwing good money after bad. In R.L. Allington & S.A.
Walmsley (Eds.), No quick fix: Rethinking literacy programs in
America's elementary schools (pp. 45-60). New York: Teachers
College Press.

Allington, R., Stuetzel, H., Shake, M., & Lamarche, S.

(1986). What is remedial reading? A descriptive study. Reading Research and Instruction, 26, 15-30.

Anderson, R.C., Reynolds, R.E. Schallert, D.L., & Goetz, E.T. (1977). Frameworks for comprehending discourse. American Educational Research Journal, 14, 367-381.

Anstrom, K. (1995). New directions for chapter I/title I. National Clearinghouse for Bilingual Education, Washington, DC. (ED 394304).

Archambault, F.X. (1989). Instructional setting and other design features of compensatory education programs. In R.E. Slavin, N.L. Karweit, & N.A. Madden (Eds.), Effective programs for students at risk (pp. 220-261). Boston: Allyn & Bacon.

Au, K.H., & Carrol, J.H. (1997). Improving literacy achievement through a constructivist approach: The KEEP demonstration classroom project. The Elementary School Journal, 97, 203-221.

Badian, N.A. (1988). The prediction of good and poor

reading before kindergarten entry: A nine-year follow-up. Journal of Learning Disabilities, 21, 98-123.

Beach, S.A. (1997). At-risk readers: Part I-identifying the cycle. Reading Psychology, 18, 173-182.

Bean, R. M., Coolle, W. W., Eichelberger, R. T., Lazaz, M. K., & Zigmond, N. (1991). In class or pullout: Effects of setting on the remedial reading program. Journal of Reading Behavior, 23, 445-464.

Boehnlein, M. (1987). Reading intervention for high-risk first-graders. Educational Leadership, 44, 32-37.

Bradley, L., & Bryant, P.E. (1985). Rhyme and reason in reading and spelling. Ann Arbor: University of Michigan Press.

Browne, A., Fitts, M., McLaughlin, B., McNamara, M.J., & Williams, J. (1996/1997). Teaching and learning in reading recovery: Response to "But teacher you went right on". The Reading Teacher, 50, 294-300.

Butler, S.R., Marsh, H.W., Sheppard, M.J., & Sheppard,

J.L. (1985). Seven-year longitudinal study of the early prediction of reading achievement. Journal of Educational Psychology, 77, 349-361.

Byrne, B., & Fielding-Barnsley, R. (1991). Evaluation of a program to teach phonemic awareness to young children. Journal of Educational Psychology, 83, 451-455.

Canning, P.M. (1996). Special matters: The report of the review of special education. St.John's, Nfld.: Memorial University of Newfoundland.

Carter, L.F. (1984) The sustaining effects study of compensatory and elementary education. Educational Researcher, 13, 4-13.

Center, Y., Wheldall, K., Freeman, L., Outhred, L., & McNaught, M. (1995). An evaluation of reading recovery. Reading Research Quarterly, 30, 240-263.

Chall, J.S., & Curtis, M.E. (1987). What clinical diagnosis tells us about reading. The Reading Teacher, 40, 784-788.

Chapman, J.W., & Tunmer, W.E. (1991). Recovering reading recovery. Australian and New Zealand Journal of Developmental Disabilities, 17, 59-71.

Clay, M.M. (1985). The early detection of reading difficulties. Aukland, New Zealand: Heinemann.

Clay, M.M. (1990). The reading recovery program. 1984-88: Coverage, outcomes and education board district figures. New Zealand Journal of Educational Studies, 22, 35-58.

Clay, M.M. (1991a). Why is an inservice programme for reading recovery teachers necessary? Reading Horizons, 31, 355-372.

Clay, M.M. (1991b). Syntactic awareness and reading recovery: A response to Tunmer. New Zealand Journal of Educational Studies, 26, 87-91.

Cullinan, B.E. (1981). Literature and the child. New York: Harcourt, Brace, Jovanovich.

DeFord, D.E., Pinnell, G.S., Lyons, C., & Young, P.

(1988). Reading recovery: Vol. IX, report of the follow-up studies.

Dole, J.A., Duffy, G.G., Roehler, L.R., & Pearson, P.D. (1991). Moving from the old to the new: Research on reading comprehension instruction. Review of Educational Research, 661, 239-264.

Dunn, L.M., Dunn, L.M. (1981). Peabody picture vocabulary test-revised. Circle Mines, Minn.: American Guidance Service.

Ferreiro, E., & Teberosky, A. (1982). Literacy before schooling. Exeter, NH:Heinemann

Funk, H., & Funk, G.D. (1992). Children's literature: An integral facet of the elementary school curriculum. Reading Improvement, 29, 40-44.

Gaffney, J.S. (1991). Reading recovery: Getting started in a school system. Reading Horizons, 31, 373-383.

Gambrell, L.B. (1996). What research reveals about discussion. In L.B. Gambrell & J.F. Almasi (Eds.), Lively

discussions!: Fostering engaged reading (pp. 25-38). Newark, DE: International Reading Association.

Gates-McGinitie reading tests: Second Canadian edition (1992). Toronto: Thomas Nelson & Sons.

Glynn, T., Crooks, T., Bethune, N., Ballard, K., & Smith, J. (1989). Reading recovery in context. Wellington: New Zealand Department of Education.

Goodman, K. (1986). What's whole in whole language? Portsmouth, NH: Heineman.

Goodman, Y.M. (1976). Strategies for comprehension. In P.D. Allen & D. Watson (Eds.), Findings of research on miscue analysis: Classroom implications (pp. 94-102). Urbana, IL: National Council of Teachers of English.

Goodman, Y. (1984). The development of initial literacy. In H. Goelman, A. Olbeg, & F. Smith (Eds.), Awakening to literacy (pp.102-109). Exeter, NH: Heinemann.

Gredler, G.R. (1997). Intervention programs for young

children with learning problems. Psychology in the Schools, 34, 161-169.

Harste, J.C., Woodward, V.A., & Burke, C.L. (1984). Language stories and literacy lessons. Portsmouth, NH: Heinemann.

Hiebert, E.H. (1983). An examination of ability grouping for reading instruction. Reading Research Quarterly, 18, 231-255.

Hiebert, E.H. (1987). The context of instruction and student learning: An examination of Slavin's assumptions. Review of Educational Research, 57, 337-340.

Hiebert, E.H. (1994). Reading recovery in the United States: what difference does it make to an age cohort? Educational Researcher, 23, 15-25.

Hoffman, J.V., & Clements, R. (1984). Reading miscues and teacher verbal feedback. Elementary School Journal, 81, 305-310.

Holmes, C.T., & Matthews, K.M. (1984). The effects of nonpromotion on the elementary and junior high school pupils: A meta-analysis. Review of Educational Research, 54, 225-236.

Huck, C.S., & Pinnell, G.S. (1986). The Reading recovery project in Columbus, Ohio, Vol. 1, pilot year 1984-85. Columbus: The Ohio State University.

Huey, E.B. (1908). The psychology and pedagogy of reading. New York: Macmillan.

Isakson, M.B. (1997). Learning from practice: Supporting the literacy learning of reluctant and less proficient adolescent readers. Reading Research Quarterly, 32, 334-336.

Iversen, J.A., & Tunmer, W.E. (1993). Phonological processing skills and the reading recovery program. Journal Of Educational Psychology, 85, 112-126.

Jakubowski, D., & Ogletree, E.J. (1993). The effectiveness of chapter I pull-out programs on reading achievement. Research report. Illinois. (ED 367734).

Johnston, P.A., & Allington, R.L. (1991). Remediation. In R. Barr, P. Mosenthal, M. Kamil, & P.D. Oearson (Eds.), Handbook of reading research, Volume II (pp. 984-1012). New York: Longman.

Jones, N.K. (1991). Helping to learn: Components and principles of reading recovery training. Reading Horizons, 31, 421-438.

Juel, C. (1988). Learning to read and write: A longitudinal study of fifty-four children from first through fourth grade. Journal of Educational Psychology, 85, 112-126.

Juel, C. (1996). What makes literacy tutoring effective? Reading Research Quarterly, 31, 268-289.

Kennedy,M. M., Birman, B. F., Demaline, R. E. (1986). The effectiveness of chapter I services. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.

Klesius, J.P., & Griffith, P.L. (1996). Interactive storybook reading for at-risk learners. The Reading Teacher,

49, 552-560.

Kletzien, S.B., & Hushion, B.C. (1992). Reading workshop: Reading, writing, thinking. Journal of Reading, 35, 444-451.

Leinhardt, G., & Pallay, A. (1982). Restrictive educational settings: Exile or haven? Review of Educational Research, 52, 557-578.

Lyons, C.A. (1989). Reading Recovery: An effective program that can prevent mislabeling of children as learning disabled. ERS Spectrum, 7, 3-9.

Lyons, C.A., & Beaver, J. (1995). Reducing retention and learning disability placement through reading recovery: An educationally sound, cost-effective choice. In R.L. Allington & S.A. Walmsley (Eds.), No quick fix: Rethinking literacy programs in America's elementary schools (pp. 116-136). New York: Teachers College Press.

Lyons, C. A., Pinnell, G. S., DeFord, D. E. (1993). Partners in learning: Teachers and children in reading recovery. New York: Teachers College Press.

Madden, N.A., & Slavin, R.E. (1989). Effective pullout programs for students at risk. In R.E. Slavin, N.L. Karweit, & N.A. Madden (Eds.), Effective programs for students at risk (pp.52-75). Needham Heights, MA: Allyn & Bacon.

Manning, J. (1995). Ariston metron. The Reading Teacher, 48, 650-659.

Mantzicopoulus, P.Y. (1997). Do certain groups of children profit from early retention? A follow-up study of kindergartners with attention problems. Psychology in the Schools, 34, 115-127.

Matthews, M.W., Monsaas, J.A., & Penwick, J.M. (1997). A comparative study of the literacy development of at-risk children in graded versus nongraded classrooms. Reading Research and Instruction, 36, 225-239.

May, D.C., & Kundert, D.K. (1997). School readiness practices and children at-risk: Examining the issues. Psychology in the Schools, 34, 73-84.

McGill-Franzen, A.M., & Allington, R.L. (1991). The

gridlock of low-achievement: Perspectives on policy and practice. Remedial and Special Education, 12, 20-30.

McInnis, R.G. (1995). Why library schools need to change their curriculum. Opinion paper. (ED 400821).

McLain, K.V., & Heaston, A. (1994). Informal assessment: An organized meld of evaluative information. Opinion paper. (ED 366936).

Mefferd, P.E., & Pettegrew, B.S. (1997). Fostering literacy acquisition of students with developmental disabilities: Assisted reading with predictable books. Reading Research and Instruction, 36, 177-190.

Meisels, S.J., & Liaw, F. (1993). Failure in grade: Do retained students catch up? Journal of Educational Research, 87, 69-77.

Otto, H.J. (1932). Implications for administration and teaching growing out of pupil failures. Elementary School Journal, 33, 25-32.

Palinscar, A.S., & Klenk, L. (1993). Invited responses. Broader visions encompassing literacy, learners, and contexts. Remedial and Special Education, 14, 19-25.

Pallas, A., Natriello, G., & McGill, E. (1989). The changing nature of the disadvantaged population: Current dimensions and future trends. Educational Researcher, 18, 16-22.

Pearson, P.D. (1985). Changing the faces of reading comprehension instruction. Reading Teacher, 38, 724-738.

Peterson, S.E., DeGracie, J.S., & Ayabe, C.R. (1987). A longitudinal study of the effects of retention/promotion on academic achievement. American Educational Research Journal, 24, 107-118.

Pikulski, J. J. (1994). Preventing reading failure: A review of five effective programs. The Reading Teacher, 48, 30-39.

Pinnell, G.S. (1985). Helping teachers help children at risk: Insights from the reading recovery program. Peabody

Journal of Education, 62, 70-85.

   Pinnell, G.S. (1989). Reading recovery: Helping at-risk children learn to read. The Elementary School Journal, 90, 161-183.

   Pinnell, G.S., Huck, C.S., & DeFord, D.E. (1986). The Reading recovery project in Columbus, Ohio, Ohio Studies, Vol.3 (Year 1: 1985-86). Columbus: The Ohio State University.

   Pinnell, G.S., Lyons, C.A., & DeFord, D.E. Reading recovery as a context for two research initiatives. (Online) Available http://ed1.eng.ohio-state.edu/center/pilyde2.htm, May 3, 1997.

   Pinnell, G.S., Lyons, C.A., DeFord, D.E., Bryk, A.S., & Seltzer, M. (1994). Comparing instructional models for the literacy education of high-risk first graders. Reading Research Quarterly, 29, 8-39.

   Pinnell, G.S., Lyons, C., & Jones, N. (1996). Response to Hiebert: What difference does reading recovery make? Educational Researcher, 25, 23-25.

Poplin, M.S. (1988). The reductionistic fallacy in learning disabilities: Replicating the past by reducing the present. Journal of Learning Disabilities, 21, 389-400.

Raphael, T.E., & McMahon, S.I. (1994). Book Club: An alternative framework for reading instruction. The Reading Teacher, 48, 102-116.

Reid, D.K. (1993). First invited response: Another vision of "Visions and revisions". Remedial and Special Education, 14, 1-16,25.

Rhodes, L.K., & Dudley-Marling, C. (1988). Readers and writers with a difference: A holistic approach to teaching learning disabled and remedial students. Portsmouth, NH: Heinemann.

Rhodes, L.K., & Dudley-Marling, C. (1994). Struggling readers in the regular classroom: A personal reflection. Reading Horizons, 34, 465-487.

Rhodes, L.K., & Nathenson-Mejia, S. (1992). Anecdotal records: A powerful tool for ongoing literacy assessment. The

Reading Teacher, 45, 502-509.

Roderick, M. (1994). Grade retention and school dropout: Investigating the association. American Educational Research Journal, 31, 729-759.

Ross, S.M., Smith, L.J., Slavin, R.E., & Madden, N.A. (1997). Improving the academic success of disadvantaged children: An examination of success for all. Psychology in the Schools, 34, 171-180.

Routman, R. (1994). Invitations: Changing as teachers and learners K-12. Portsmouth, NH: Heinemann.

Rumelhart, D.E. (1977). Toward an interactive model of reading. In S. Dornic (Ed.), Attention and performance VI. Hillsdale, N.J.: Erlbaum.

Rycik, J. (1997). Reflections on teacher preparation: What makes a literacy teacher? Ohio Reading Teacher, 31, 76-78.

Sears, S., Carpenter, C., Burstein, N. (1994). Meaningful

reading instruction for learners with special needs. The Reading Teacher, 47, 632-638.

Shannahan, T., & Barr, R. (1995). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. Reading Research Quarterly, 30, 958-996.

Silva, C., & Delgado-Larocco, E.L. (1993). Facilitating learning through interconnections: A concept approach to core literature units. Language Arts, 70, 469-474.

Slavin, R.E. (1991). Chapter I: A vision for the next quarter century. Phi Delta Kappan, 69, 110-119.

Slavin, R.E., (1994). Preventing early school failure: The challenge and the opportunity. In R.E. Slavin, N.L. Karweit, & B.A. Wasik (Eds.), Preventing early school failure (pp.1-12). Boston: Allyn & Bacon.

Slavin, R.E., & Madden, N. (1989). What works for students at risk: A research synthesis. Educational Leadership, 64, 4-13.

Smith, F. (1982). Understanding reading. New York: Holt, Rinehart & Winston.

Spiegel, D. L. (1995). A comparison of traditional remedial programs and Reading Recovery: Guidelines for success for all programs. The Reading Teacher, 49, 86-96.

Spiegel, D.L., & Rodgers, C. (1980). Teacher responses to miscues during oral reading by second-grade students. Journal of Educational Research, 74, 8-12.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. Reading Research Quarterly, 21, 360-407.

Stieglitz, E.L. (1992). The Stieglitz informal reading inventory. Boston, Mass: Allyn and Bacon.

Sutherland, Z., & Arbuthnot, M.H. (1986). Children and books. Glenview, IL: Scott, Foresman.

Tancock, S.M. (1994). A literacy lesson framework for children with reading problems. The Reading Teacher, 48, 130-

140.

Tanner, C.K., & Galis, S.A. (1997). Student retention: Why is there a gap between the majority of research findings and school practice? Psychology in the Schools, 34, 107-114.

Teale, W. H., & Sulzby, E. (1986). Emergent literacy as a perspective for examining how young children become writers and readers. In W. H. Teale & E. Sulzby (Eds.), Emergent literacy: Writing and reading (pp. vii-xxv). Norwood, NJ: Ablex.

Tunmer, W.E. (1990). The role of language prediction skills in beginning reading. New Zealand Journal of Educational Studies, 25, 95-114.

Tunmer, W.E., Herriman, M.L., & Nesdale, A.R. (1988). Metalinguistic abilities and beginning reading. Reading Research Quarterly, 23, 134-158.

Valencia, S., & Pearson, P.D. (1987). Reading assessment: Time for a change. The Reading Teacher, 40, 726-732.

Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes. Cambridge , MA: Harvard University Press.

Walmsley, S.A., & Allington, R.L. (1995). Redefining and reforming instructional support programs for at-risk students. In R.L. Allington & S.A. Walmsley (Eds.) No quick fix: Rethinking literacy programs in America's elementary schools (pp. 19-44). New York: Teachers College Press.

Wasik, B.A., & Slavin, R.E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. Reading Research Quarterly, 28, 179-200.

Wong, S. (1994). Characterizing teacher-student interaction in reading recovery lessons. Reading research report No. 17. Athens, GA: National Reading Research Center. (ED 375392).

Wuthrick, M.A. (1990). What should I do when they don't know the words? A review of the literature. Ohio Reading Teacher, 24, 32-40.

APPENDIX A

A SUMMARY OF RUNNING RECORD SCORE SHEET

NAME: _____   ERROR RATE: _____

DATE: _____   ACCURACY: _____

TEXT: _____   SELF CORRECTION RATE: _____

TEXT	READER	CUES USED	
		E	SC
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V
		M S V	M S V

APPENDIX B

CALCULATION AND CONVERSION TABLE (Clay, 1985)

ERROR RATE	PERCENT ACCURACY
1 : 200	99.5
1 : 100	99
1 : 50	98
1 : 35	97
1 : 25	96
1 : 20	95
1 : 17	94
1 : 14	93
1 : 12.5	92
1 : 11.75	91
1 : 10	90
1 : 9	89
1 : 8	87.5
1 : 7	85.5
1 : 6	83
1 : 5	80
1 : 4	75
1 : 3	66
1 : 2	50

CALCULATIONS

RW = Running Words
E = Errors
SC = Self-corrections

Error rate:
Running Words/ Errors

Accuracy:
100 - E/ RW x 100/1

Self-Correction Rate:
E + SC / SC

APPENDIX C

Dear Parents,

I am a graduate student in the Faculty of Education at Memorial University of Newfoundland. I am under the supervision of Dr. Marc Glassman who may be contacted at 737-7627. As part of my thesis research, I will be designing, implementing and evaluating an intervention program for students having difficulty with reading. I am requesting your permission for your child to participate in this study at St.Patrick's School, Bay Bulls.

Your child's involvement in the study will include participating in pre- and post-assessments to determine his/her instructional reading level and to identify strengths and weaknesses related to his/her literacy development. Assessments will also be carried out to determine the effectiveness of the program.

The study will be carried out over a twenty week period beginning in January of 1997. Your child will work with the researcher in a segregated small group setting for four forty minute periods in a six day cycle. The design of the proposed program will accommodate the objectives set out in your child's current Individual Program Plan.

All information gathered in this study is strictly confidential and at no time will your child be identified. Participation in the study is voluntary and your child may withdraw from the study at any time. The results of this study are available to you upon request.

If you are in agreement with your child's participation in this study please sign the enclosed consent form. If you have any questions or concerns please do not hesitate to contact me at 334-2808 or 579-2314. If you wish to speak with a resource

person at Memorial University please contact Dr. Patricia Canning, Associate Dean of Research and Graduate Programmes at 737-8587.

Thank You.

Yours Sincerely,

Audrey Swain

_____

I/We _____ give permission for my/our child to participate in the research study as described above. I/We understand that participation is entirely voluntary and that my/our child may withdraw at any time. All information is strictly confidential and my/our child will not be identified.

_____   _____

Date   Signature

APPENDIX D

Dear Mr. Galgay,

I am a graduate student in the Faculty of Education at Memorial University of Newfoundland. I am under the supervision of Dr. Marc Glassman who may be contacted at 737-7627. As part of my theses research, I will be designing, implementing and evaluating an intervention program for students having difficulty with reading. I am requesting your permission for me to complete this research at St. Patrick's School, Bay Bulls.

Nine students at the school will participate in the study. These students have been identified by the school's Program Planning Team as having difficulties with reading. Their involvement in the study will include participating in pre- and post-assessments to determine their instructional reading levels and to identify strengths and weaknesses related to their literacy development. Assessments will also be carried out to determine the effectiveness of the proposed intervention program.

The study will be carried out over a twenty week period beginning in January 1997. Students will work with the researcher in a segregated small group setting for four forty minute periods in a six day cycle. The design of the proposed program will accommodate the objectives set out in each student's Individual Program Plan.

All information gathered in this study is strictly confidential and at no time will individuals be identified. Participation in this study is voluntary and the individuals may withdraw from the study at any time. The results of this study are available to you upon request.

If you are in agreement with the school's participation in this study please sign the enclosed consent form. If you have

any questions or concerns please do not hesitate to contact me at 579-2314. If you wish to speak with a resource person at Memorial University please contact Dr. Patricia Canning, Associate Dean of Research and Graduate Programmes at 737-8587.

Thank You.

Yours Sincerely,

Audrey Swain

I _____ agree to have St. Patrick's School, Bay Bulls participate in the research study as described above. I understand that the participation is entirely voluntary and that individuals may withdraw at any time. All information is strictly confidential and no individuals will be identified.

_____   _____
Date   Signature

Table 1

Gains in Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 4 and 3, Levels 4 and 5/6

Student	Pretest	Posttest	Gain
Ben			
Vocabulary	3.0	3.2	0.2
Comprehension	2.2	3.5	1.3
Total	2.5	3.4	0.9
Alice			
Vocabulary	2.7	3.3	0.6
Comprehension	2.7	2.8	0.1
Total	2.6	3.2	0.9
Michael			
Vocabulary	2.0	3.5	1.5
Comprehension	2.6	3.7	1.1
Total	2.2	3.5	1.3
Jane			
Vocabulary	3.0	4.0	1.0
Comprehension	2.4	1.9	-0.5
Total	2.5	2.6	0.1

Gains in Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 4 and 3, Levels 4 and 5/6

Student	Pretest	Posttest	Gain
Nancy			
Vocabulary	4.4	4.5	0.1
Comprehension	4.4	6.3	1.9
Total	4.3	5.2	0.9
Molly			
Vocabulary	3.3	3.7	0.4
Comprehension	3.1	5.7	2.6
Total	3.1	4.5	1.4
Gail			
Vocabulary	4.6	5.0	0.4
Comprehension	4.4	5.3	0.9
Total	4.4	5.1	0.7
John			
Vocabulary	4.8	5.4	0.6
Comprehension	3.8	4.6	0.8
Total	4.4	5.1	0.7

Gains in Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 4 and 3, Levels 4 and 5/6

Student	Pretest	Posttest	Gain
Jill			
Vocabulary	4.4	3.3	-0.9
Comprehension	4.2	2.8	-1.4
Total	4.2	2.9	-1.3
Mean Value			
Vocabulary	3.6	4.0	0.4
Comprehension	3.3	4.1	0.8
Total	3.4	3.9	0.5

Table 2

Gains in Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 3 and 4, Levels 4 and 5/6

Student	September	Pretest	Gain
Ben			
Vocabulary	2.2	3.0	0.8
Comprehension	2.5	2.2	-0.3
Total	2.3	2.5	0.2
Alice			
Vocabulary	2.2	2.7	0.3
Comprehension	2.5	2.7	0.2
Total	2.3	2.6	0.3
Michael			
Vocabulary	1.8	2.0	0.2
Comprehension	2.4	2.6	0.2
Total	1.9	2.2	0.3
Jane			
Vocabulary	2.6	3.0	0.4
Comprehension	3.1	2.4	-0.7
Total	2.7	2.5	-0.2

Gains in Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 3 and 4, Levels 4 and 5/6

Student	September	Pretest	Gain
Nancy			
Vocabulary	2.6	4.4	1.8
Comprehension	5.4	4.4	-1.0
Total	4.0	4.3	0.3
Molly			
Vocabulary	2.2	3.3	1.1
Comprehension	3.8	3.1	-0.7
Total	3.1	3.1	0
Gail			
Vocabulary	4.2	4.6	0.4
Comprehension	5.1	4.4	-0.7
Total	4.4	4.4	0
John			
Vocabulary	3.7	4.8	1.1
Comprehension	3.4	3.8	0.4
Total	3.5	4.4	0.9

Gains In Reading Achievement on the Gates-McGinitie Reading
Tests, Forms 3 and 4, Levels 4 and 5/6

Student	September	Pretest	Gain
Jill			
Vocabulary	3.1	4.4	1.3
Comprehension	2.6	4.2	1.6
Total	2.7	4.2	1.5
Mean Value			
Vocabulary	2.7	3.6	0.9
Comprehension	3.4	3.3	-0.1
Total	3.0	3.4	0.4

Table 3

Individual Scores on the Peabody Picture Vocabulary Test-
Revised

Student	Age	Age Equivalent	Percentile
Ben	9-1	10-4	75
Alice	9-2	6-6	3
Michael	10-3	9-1	27
Jane	10-2	9-8	42
Nancy	11-6	10-4	25
Molly	11-0	9-0	14
Gail	11-3	7-11	3
John	11-9	9-8	16
Jill	11-8	8-6	6

Table 4

Summary of Ben's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:8	87%	1:12
Book 1-B	1:17	94%	1:4
Book 2-A	1:7	86%	1:0
Book 2-B	1:19	95%	1:4
Book 3-A	1:13	92%	1:4
Book 3-B	1:43	98%	1:4

Note:

Book 1-A is a running record taken at the beginning of the first book read during the study.

Book 1-B is a running record taken at the end of the first book read during the study.

Book 2-A is a running record from the beginning of the book read midway through the study.

Book 2-B is a running record taken at the end of the book read midway through the study.

Book 3-A is a running record taken at the beginning of the book read at the end of the study.

Book 3-B is a running record taken at the end of the book read at the end of the study.

Table 5

Summary of Alice's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:23	96%	1:8
Book 1-B	1:18	95%	1:6
Book 2-A	1:15	93%	1:6
Book 2-B	1:35	97%	1:3
Book 3-A	1:32	97%	1:0
Book 3-B	1:33	97%	1:5

Table 6

Summary of Michael's Running Records Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:12	92%	1:12
Book 1-B	1:16	94%	1:9
Book 2-A	1:15	93%	1:7
Book 2-B	1:21	95%	1:0
Book 3-A	1:63	98%	1:3
Book 3-B	1:53	98%	1:3

Table 7

Summary of Jane's Running Records Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:15	94%	1:9
Book 1-B	1:12	91%	1:12
Book 2-A	1:21	95%	1:5
Book 2-B	1:24	96%	1:4
Book 3-A	1:20	95%	1:6
Book 3-B	1:19	95%	1:9

Table 8

Summary of Nancy's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:51	98%	1:4
Book 1-B	1:26	96%	1:4
Book 2-A	1:25	96%	1:6
Book 2-B	1:51	98%	1:3
Book 3-A	1:16	94%	1:10
Book 3-B	1:97	99%	1:3

Table 9

Summary of Molly's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:25	95%	1:5
Book 1-B	1:28	96%	1:3
Book 2-A	1:26	96%	1:7
Book 2-B	1:25	96%	1:4
Book 3-A	1:25	96%	1:6
Book 3-B	1:20	95%	1:7

Table 10

Summary of Gail's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:27	96%	1:4
Book 1-B	1:21	95%	1:0
Book 2-A	1:34	97%	1:6
Book 2-B	1:34	97%	1:6
Book 3-A	1:32	97%	1:7
Book 3-B	1:79	99%	1:4

Table 11

Summary of John's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:17	94%	1:5
Book 1-B	1:107	99%	1:3
Book 2-A	1:36	97%	1:5
Book 2-B	1:50	98%	1:3
Book 3-A	1:36	97%	1:5
Book 3-B	1:68	99%	1:3

Table 12

Summary of Jill's Running Records, Clay, (1985)

Items	Error Rate	Accuracy	Self-correction Rate
Book 1-A	1:23	96%	1:5
Book 1-B	1:50	98%	1:5
Book 2-A	1:20	95%	1:7
Book 2-B	1:24	96%	1:0
Book 3-A	1:15	93%	1:6
Book 3-B	1:24	96%	1:0