READING RECOVERY™ IMPLEMENTATION
IN LABRADOR:
A TWO-YEAR LONGITUDINAL STUDY OF THE
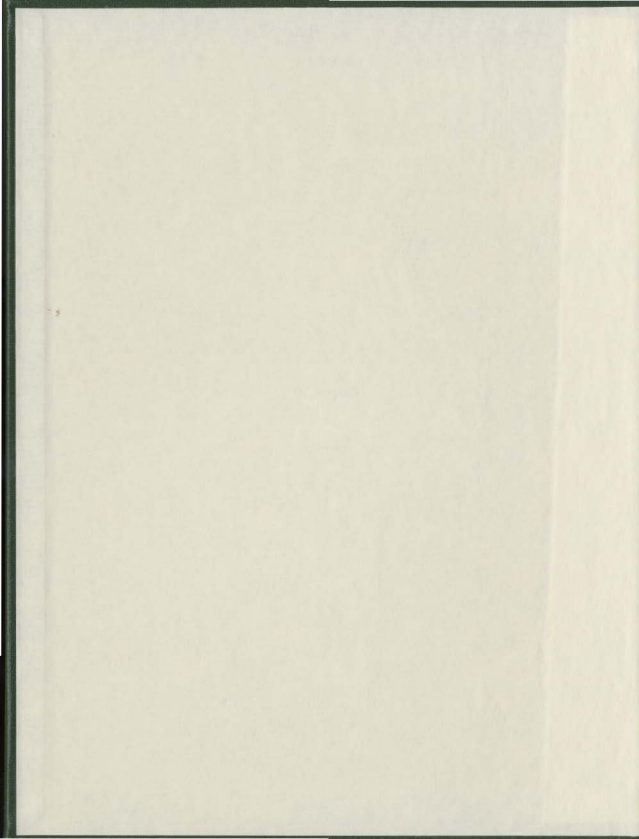# LONG-TERM EFFECTS OF READING RECOVERY™

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INFORMATION TO USERS

READING RECOVERY™ IMPLEMENTATION IN LABRADOR:

A TWO-YEAR LONGITUDINAL STUDY OF THE LONG-TERM EFFECTS OF

READING RECOVERY™

by

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ABSRACT

The effectiveness of the Reading Recovery™ program for students who are identified "at-risk" of reading and writing failure was evaluated in a two-year longitudinal study involving 36 participants within the Labrador School Board. The study not only demonstrated the effectiveness of Reading Recovery™, but also the implications for effective programming to meet the needs of children such as those of a multi-cultural background and isolated environments. To evaluate the impact of Reading Recovery™, the study consisted of three groups: the Treatment group, consisting of participants who were successfully discontinued from Reading Recovery™ in grade 1 the previous year, the Reference Group consisting of participants considered to be "average-achieving" within the classroom, and a Comparison Group consisting of students considered to be "at-risk" of reading and writing failure who were unable to access Reading Recovery™. Participants were assessed over a two-year period from fall, 1998 to the spring, 2000. There were four testing trials, two in the fall and two in the spring using dependent measures to assess reading instructional levels, instructional comprehension levels, spelling, word recognition skills and fluency development ratings. A repeated measures analysis of variance research design was implemented to determine significant differences for within-group and between-group differences. The results suggested the Reading Recovery™, participants demonstrated significantly higher scores than their "at-risk" peers who did not participate in Reading Recovery™ and also demonstrated comparable achievement to that of their "average-achieving" classmates. Despite the significant differences in the Comparison Group and both the Treatment Group and

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the Reference Group, all groups made positive gains over the two-year study period on all five-dependent measures (i.e. *Diagnostic Reading Inventory: Reading Passages*, *Diagnostic Reading Inventory: Reading Comprehension*, *Burt Word Reading Test*, *Gentry Spelling Assessment*, and Fluency Rating). On three of the five dependent measures (i.e. *Diagnostic Reading Inventory: Reading Comprehension*, *Gentry Spelling Assessment*, and Fluency Rating) the Comparison Group demonstrated a similar pattern of progress as the Treatment Group and the Reference Group. Questionnaires and Student Record Forms were also provided to classroom teachers, Reading Recovery™ teachers, and school administrators to determine the impact of Reading Recovery™ on teaching and school development. The questionnaires were analyzed both qualitatively, to examine written responses and quantitatively, to determine percentages and mean averages of responses that validate research finding and to investigate other areas of the Reading Recovery™ program as identified in the literature.

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Introduction

A current focus of education is the early identification and intervention for children "at risk" of having difficulty learning to read and write. It has been identified that although Newfoundland and Labrador have shown improvement in recent years, the province is still recognized as having the lowest literacy level in the country. "According to Statistics Canada, 39 percent of the population 25 years of age and older has less than a high school education compared to 28 percent of the same aged group for all of Canada"(Words to Live By, 2000).

It is the innate goal of educators to attempt to make learning productive and meaningful for children. However, there is little doubt that children-having difficulty in the acquisition of reading and writing skills are greatly disadvantaged in their school careers. Poor readers and writers experience deficiencies much like a "snowball effect", which flows into "all other aspects of education, including reduced self-concept" (Gregory, Earl, & O'Donoghue, 1993). "Words To Live By" (2000), developed by the Newfoundland and Labrador Department of Education, outlining a "Strategic Literacy Plan for Newfoundland and Labrador", acknowledges that literacy is important to our society as a whole. This document links reading proficiency to increased access to employment opportunities and improved job

status, participation in the democratic process and citizenship, improved health and well-being, as well as personal fulfillment. It reports a widespread provincial need to address literacy problems identified through participation of individuals in Adult Basic Education Programs and through formal assessments administered to students nationally. Statistics Canada reported that on a national level "25 percent of students fall within levels that suggest they are having problems reading and writing" (Words to Live By, 2000).

Identifying that more work can be done to achieve literacy levels comparable to that of other provinces, the provincial government announced in January 1998 "its intention to develop a Strategic Literacy Plan for Newfoundland and Labrador" (Words to Live By, 2000). A steering committee consisting of stakeholders including… "learners, volunteers, communities, agencies, the Literacy Development Council, along with representatives from both levels of government and representatives of industry and labor was to oversee the development and implementation of the plan. Three main goals have emerged through the consultations of the Literacy Strategic Planning Unit. The following goals are stated in Words to Live By (2000):

1. Literacy levels which are among the highest in Canada

2. A culture which values literacy as a desirable goal for all people

3. An integrated approach to literacy development

To date, the most common method of assisting children with reading and writing difficulties is remediation. Despite the common practice of remedial programs in our schools, the choice of programming for "at-risk" children has been criticized by providing "too little, too late" (Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994). More specifically, critics argue that remedial programs are combated with a loss of valuable classroom instructional time and essential learning of curriculum concepts, deficiencies in cohesion between the regular classroom program and the remedial program, as well as concerns of stigmatization and its effects on self-esteem (Swain, 1997).

Traditional remedial programs have been designed on the premise of a "deficit model" in which the method of instruction is developed around a teacher directed approach and the students assuming a passive role in their learning of reading and writing skills. This approach focuses on individual skills being strengthened through the use of worksheets and "drill and practice" activities. According to Manning (1995), instruction is focused on a "reductionist perspective" in which learning to read and write is believed to follow a step by step sequential process and acquisition of discreet skills needed to build on at the next stage of learning. This approach has met with problems for the "at-risk" learner and makes learning to read and write more difficult (Manning, 1995). Children become locked into unproductive strategies learned early in their reading and writing experiences. Unproductive reading and writing strategies not only interfere with the child's

present progress, but "actually blocks future learning" of productive strategies (Clay, 1982).

The trend in literacy development has taken the direction in support of a more "holistic approach" in instructing children to learn to read and write. There has been interest in recent years in children as cognitive beings, who selectively attend to aspects of their environments seeing, searching, remembering, monitoring, problem solving and validating developing strategies that build cognitive competencies and essentially are actively constructing their own learning (Clay, 1991b). Based on the "social constructivist" theory of learning, it is believed that children are active learners in their language development and essentially can construct a unique and meaningful knowledge base in authentic contexts for learning. This theory of learning contrasts with the reductionist's views in that learning is "active and real," based on "holistic" activities rather than the traditional perspective of the child's role entrenched in passivity and teacher directed activities of a sequential, drill and practice nature.

One important contribution of the "social constructivist" view is the importance of social interaction in the learning environment. According to Vygotsky (1962, 1978), a child's learning is supported by teachers within his/her "zone of proximal development". It is within this zone that "the child can not yet learn independently but can learn with appropriate adult support"(Clay, 1991b). It is an accepted notion that children start school with varied opportunities and life

experiences that either support or hinder future language development. Thus, the foundation for success is discovering one's particular competencies and develop literacy programs based on individuality and each child's "cutting edge of learning" (Clay 1991b; Clay & Cazden, 1991). If children are presented with the same task, the "zone of proximal development" is not being tested for the more competent or least competent students in the classroom language program. It is the teacher's responsibility to guide students to build upon individual competencies to ensure appropriate learning. The ultimate goal is an independent learner that can transfer learning to novel situations.

Based on this analysis, intervention must occur early, and in meaningful contexts for the child. The greatest impact for children "at-risk" for difficulty can be made in the early teaching of reading and writing skills (Pinnell et al., 1991). One such program that has been implemented in Newfoundland and Labrador independently by school districts to provide intervention early in a child's school career is the Reading Recovery^{TM} Program (Clay 1993b). The practices and overall goals are largely consistent with the learning outcomes identified in the current primary language arts resources for the province of Newfoundland and Labrador (Jeroski, & Dockendorf, 1999):

- Both programs are based on "holistic language" research
- Both emphasize strategies for independent reading and writing

- Both emphasize the learner's active participation in the reading and writing of whole, meaningful, and relevant material

- Both include instruction that responds to behaviors exhibited by the learner

- Both include ongoing, qualitative evaluation procedures, which direct the teacher's attention to the needs of the students in order to make informed decisions concerning appropriate program direction. The Newfoundland and Labrador Department of Education has implemented *First Steps* to aid in meeting the goals within the learning outcomes for each student (Rees , 1994)

Background to the Study

Reading Recovery™, developed by Dr. Marie Clay in 1976, is an early intervention program for 6 year-old students. The program is designed to move those students who are the lowest achieving readers and writers in grade 1 (i.e., approximately 10-20%) to average levels of literacy ability in approximately 12 -20 weeks. Reading Recovery™ is not meant to take the place of the core language arts curriculum, nor is it to be used as a special education program for students. It is, however, designed to work in conjunction with regular classroom instruction. The individual daily lessons in the Reading Recovery™ program are intended to enable students to develop strategies in reading and writing, as well as foster independence

to achieve and profit from regular classroom instruction (Clay 1979, 1985, 1993a, 1993b).

The Canadian Institute of Reading Recovery™ was established in 1992 and acts as the governing body of all Reading Recovery™ sites in Canada. This organization is a non-profit organization registered as a charity under the Canadian Corporations Act. Support for the Canadian Institute comes from government grants, donations, membership fees, and partnerships with the business community. The Canadian Institute of Reading Recovery™ was granted the right to hold the trademark in Canada by Dr. Marie Clay. It is the responsibility of its Board of Governors to ensure that all Reading Recovery™ sites adhere to all standards and to maintain quality control across the country. All Reading Recovery™ sites which meet the requirements set forth by the Reading Recovery™ principles and guidelines are granted a one-year royalty free license for their program (Canadian Institute of Reading Recovery™, 1997).

The Labrador School Board, formerly known as the Labrador East Integrated School Board, initiated Reading Recovery™ in 1994. According to Director of Education, Mr. Cal Patey, it was an article in *The Reading Teacher* that helped to create an interest in the program for his school district. He later offered an information session for the board as a possible intervention for the improvement in language development for certain students. Ms. Joan Hughes, a retired special education teacher, was trained as the first teacher leader for Labrador at the Canadian

Institute of Reading Recovery™ in Toronto, Ontario. Upon her return in 1995, ten teachers from the Happy Valley-Goose Bay area, schools in both the Labrador East Integrated School Board and the Roman Catholic School Board, and one teacher from Rigolet, were trained to deliver this early intervention program for grade 1 students. It was questionable, at that time, as to how best to provide training to teachers in coastal communities, due to external factors such as inclement weather conditions, financial constraints and travel with Reading Recovery™ students. Therefore, for the 1995-96 school year, the community of Rigolet was chosen as a pilot school to determine the best method for implementing Reading Recovery™ training to other teachers in isolated communities.

Providing one community on the north coast of Labrador with a trained Reading Recovery™ teacher if successful would warrant training for other communities along the north and south coasts of Labrador. The next training group consisted of coastal teachers from the following communities: Nain, Hopedale, Makkovik, Cartwright and North West River. Other schools were added to the list of Reading Recovery™ schools in the Labrador School Board. These included Labrador City, Black Tickle, Davis Inlet and Postville, as well as a second and in some cases a third teacher in the communities identified that were not meeting all the needs of students (see Table 1). It is important to note that in 1997, all three school boards in Labrador, the former Labrador East Integrated School Board, the Roman Catholic School Board and the Labrador West Integrated School Board, merged to

form District #1, the Labrador School Board. This enabled the Labrador West School Board access to the Reading Recovery™ training for their teachers.

In 1997, to meet the demands of training new Reading Recovery™ teachers in an expanding school district, Ms. Fiona Anderson, a former Reading Recovery™ teacher, was trained in Scarborough, Ontario as a teacher leader. With the recent retirement of Ms. Joan Hughes, the first teacher leader to train in Labrador, a third teacher leader was trained in the 1999-2000 school year. Ms. Delores Matthews started implementation in September 2000 for new trainees.

Program Description

Students accepted in the Reading Recovery™ program receive daily lessons, 30 minutes in duration. Lessons are one-on-one and are subject to the needs exhibited by the child during that lesson. This program services the lowest achieving 10%-20% of children at age six or grade 1. The *Observation Survey* is administered to all children to determine literacy strengths and needs. A number of factors are considered when choosing children for the program. Children have to be identified as being "at-risk" and in the lowest 10%-20% of the school population for that age. A child's birth date is also considered. For example, if a child has a January birth date and will be seven in grade 1, that child can be considered before a child with a May birth date and can be serviced on the second round of children entering the program. Finally, the child's scores on the Observation Survey are examined to

determine children in most need. For example, two children close in their date of birth may both require Reading Recovery™, however, stanine scores on individual subtests may indicate the youngest child is in most need, therefore the older child may be considered on the next round of admittance. The criterion for admittance is designed to meet the needs of children at most risk for reading and writing difficulties.

   After admittance into Reading Recovery™, the first two weeks or 10 sessions of a child's program is spent in what is called "Roaming Around the Known". The Observation Survey identifies a child's strengths and needs upon entering. This period of time is not meant for teaching, but is a time for learning about how to provide opportunities based on the *Observational Survey* to help program for children. The goal is to "become fluent and flexible in what the child already knows, thus building a firm foundation" (Gregory et al., 1993). Thus, previous learning becomes solid in the children's repertoire of knowledge and the Reading Recovery™ teacher develops a rapport with the child and an understanding of the child's abilities. Therefore, a child's strengths can be utilized when instruction begins and an element of trust has emerged between the Reading Recovery™ teacher and Reading Recovery™ student.

Table 1

Number of Newly Trained Reading Recovery™ Teachers in the Labrador School District's Implementation Each Year

School	95-96	96-97	97-98	98-99	99-00[a]	00-01
A.P. Low Primary *Labrador City*	•	•	1	3	•	•
Amos Comenius Memorial: *Hopedale*	•	2	•	1	•	1
B.L. Morrison: *Postville*	•	•	•	1	•	1
Henry Gordon Academy *Cartwright*	•	1	•	1	•	•
J.C. Earhardt Memorial *Makkovik*	•	1	1	•	•	•
Jens Haven Memorial *Nain*	•	1	1	•	•	1
Lake Melville School *North West River*	•	1	•	•	•	•
Northern Lights Academy *Rigolet*	1	•	1	1	•	•
Nukum Mani Shan *Davis Inlet*	•	•	•	2	•	2
Our Lady Queen of Peace *Happy Valley Goose Bay*	2	•	N/A[b]	N/A	N/A	N/A
Peacock Elementary *Happy Valley Goose Bay*	5	•	1	1	•	1
Peenamin McKenzie *Sheshashit*	•	•	•	•	•	3
Spruce Park Elementary *Happy Valley Goose Bay*	3	•	N/A	N/A	N/A	N/A
St. Michael's School *Happy Valley Goose Bay*	1	•	•	•	•	•
St. Peter's School *Black Tickle*	•	•	•	1	•	•
Total Trained	11	6	5	11	•	9

[a] 1999-2000 was a maintenance year and no new teachers were trained.

[b] N/A school closures or reassignment due to restructuring.

During the implementation of a lesson, the Reading Recovery™ teacher shifts from the facilitation of "Roaming around the Known" sessions to a specific framework determined by the child's performance. A Reading Recovery™ lesson will contain all the following steps and will be further examined in relation to the ten principles of an effective literacy program in Chapter 2 (Clay, 1993b; Gregory et al, 1993; Pinnell, 2000).

Step 1: Reading familiar stories. This is the beginning of each lesson in which the child selects one-three stories at their independent reading level. This is a time to practice phrasing and building fluency.

Step 2: Reading a new story that was introduced the day, the Reading Recovery™ teacher must take a running record on this book for analysis and select one-two teaching points that he/she feels are the most productive to accelerate the learning of the child.

Steps1 and 2 will take approximately 10 minutes.

Step 3: Working with letters and/ words using magnetic letters. In the beginning lessons this will be a time to work on letter identification and formation, however, once the child knows approximately 15-20 letters, "making and breaking" can begin. "Making and breaking" teaches the principles in how words work, thus developing independence of word solving abilities. This step is to be completed quickly and direct, taking approximately one-two minutes.

Step 4: Story writing. The writing of a story is generated through conversation between the child and the Reading Recovery™ teacher. The child is encouraged to write as much as possible independently. However, the Reading Recovery™ teacher supports the child when necessary. This step provides learning in "hearing and recording" sounds in words. The use of "sound boxes" is helpful in teaching children the writing of unfamiliar words.

Step 5: Assembling a cut up story. The child's story is then printed on a white piece of card and cut into pieces. The pieces may be words, chunks or phrases depending on the current needs of the child. The goal is for the child to assemble the message he/she has created attending to the visual features of print. Spacing, phrasing and fluency can be developed in this step, as well.

Steps 3-5 take approximately 10 minutes.

Step 6: Introducing and reading a new book. This step is to conclude the last 10-minutes of the Reading Recovery™ lesson by introducing a new and more challenging book to the child. A book introduction is crucial to building a meaningful context and interest for the child to begin reading. During the lesson, the Reading Recovery™ Teacher will discuss pictures and content by directing the child's attention to visual, structural and meaningful aspects of text connecting all sources of information, thus developing self monitoring and cross-checking behaviours on new text. The

child will read the new book independently with some support from the

Reading Recovery™ teacher. This book will then function as the "running

record" book in the subsequent lesson.

Teaching time is a major factor in the program. A lesson must be 30-minutes in

duration. Teaching during the lesson is based on the individual needs of the student

that day; therefore teaching should be specific and brief. One principle of Reading

Recovery™ is a balanced integrated approach that connects all lesson parts where

teaching to the student's needs is a means to accelerate progress. Teaching too many

concepts is often unproductive and changing the design of the lesson framework

negates the teaching as Reading Recovery™.

The success of the child's program depends on the Reading Recovery™

teacher's "ability to respond to individual children's needs and make powerful

teaching decisions throughout each child's lesson" (Gregory et al., 1993). The goal

of Reading Recovery™ is to bring children to average or above-average levels in

their classroom. Thus, discontinuation from the program can commence when these

levels are achieved.

Reading levels are not the only factor considered in discontinuing a student

from the program. Consultation with the classroom teacher and the school's literacy

team is also important in deciding how well the child can survive in the classroom

independently. Factors considered in terms of setting is the position of the child's

abilities in relation to the class as a whole, class size, book level the class is presently

working on and the teacher's attitude. The child must also demonstrate independence by self-monitoring reading and writing, correcting self-detected errors, and cross checking all sources of information (Clay, 1993b; Gregory et al., 1993). This is evidence that a "self extending system" has developed.

When discontinuing a student, the Observation Survey must be completed and compared to the child's entry-level status. The assessor for this testing must be a trained person in administering the *Observation Survey* independent of the child's current program. This is a measure of reliability and validity in which an unbiased party can analyze a child's strengths and needs. If it has been decided to discontinue the child from the program, the Reading Recovery™ teacher must consult with the classroom teacher to relay the child's strengths and needs and arrange for monitoring the child's progress after discontinuing (Clay, 1993a).

Not all children will meet the criteria and be discontinued from Reading Recovery™; therefore, arrangements need to be made to make appropriate referral to special services. An alternate plan of action has to be taken on behalf of the child that is more long-term in meeting their strengths and needs.

Labrador Reading Recovery™ Statistics

Since the implementation of Reading Recovery™ in 1995, 39% (n=463) of the 1189 grade 1 students registered in schools with full implementation were determined "at risk" and received this early intervention program. Over the five

years of implementation, 69% were successfully discontinued from the Reading Recovery™ program. Overall, 4% of the grade 1 students who have received the program from September 1999 to June 2000 were "carried over" for discontinuing in the 2000-2001 school year. Data has not yet been received on these students. One can infer that a student's program "carried over" indicates that progression was being made, however the student did not complete their program due to late entry at the end of the school year. All other "carry over" students from previous years are included in the data identifying discontinued students.

Unfortunately, Reading Recovery™ does not meet the needs of all "at risk" students in the 12-20 weeks outlined in the program guidelines; 17% of the children who did not meet with success over the five-year implementation were referred for further assessment, 5% moved to an area where Reading Recovery™ was not implemented, and 4% because of "culturally sanctioned move to the hunting grounds" or frequent absenteeism (Anderson, 2000). Table 2 contains details of the Labrador Implementation Project from 1995-2000.

Significance of the Study

Reading Recovery™ is presented as a relatively new program in the Newfoundland and Labrador school system, with implementation in four school districts to date. Past research of the Reading Recovery™ program has indicated success and long term growth of reading and writing gains (Pinnell et al., 1994;

Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Jagger & Simic, 1996;
Shanahan & Barr, 1995). Despite positive outcomes, research has been subjected to
criticisms of methodological shortcomings and a request for research in the area.
Flaws in research design and researcher biases, such as decreasing sample size
during the study, lack of reliability and control data, nonrandomized population
samples, and contradictory discontinuation criteria, have been the subject of much of
this criticism (Canning 1996; Center, Wheldall, & Freeman, 1992; Shanahan & Barr,
1995; Wasik & Slavin, 1993). With criticisms concerning time, allocation,
budgetary costs and lack of documentation of the Reading Recovery^{TM} program in
Newfoundland and Labrador. Reading Recovery^{TM} as an alternative reading program
demands investigation.

According to Canning (1996), despite the adoption of Reading Recovery^{TM} as
an early intervention to help alleviate the large number of children identified "at
risk" for reading and writing difficulties, it is her opinion that Reading Recovery^{TM}
may not be the approach needed in Newfoundland and Labrador. Outlined in
Special Matters: The Report of the Review of Special Education, Canning (1996)
reinforces that "there are no long-term evaluations available on the effectiveness of
this approach in the Newfoundland context". Secondly, the Reading Recovery^{TM}
program was designed for children of New Zealand, a country with high literacy
rates, after students were unsuccessful in their first year of instruction. Basically,
these children were not getting what they needed after an initial year of effective

instruction. Canning (1996) argues that this particular program may not be beneficial to children with "systemic problems" that may require long-term assistance. To date, there is more evidence required in support of these findings.

According to Canning (1996), integration plays a key role in the effectiveness of prevention and intervention programs. The need for intervention lies in the overall approach to reading instruction in the classroom to address all needs experienced by young students. She also states that Reading Recovery™ does not provide follow-up remedial support after discontinuing children from the program in the most crucial years for "at-risk" students (i.e., the primary and elementary grades), thus, implying a quick fix without adequate follow-up intervention is untenable. She further calls attention to the classrooms with higher numbers of "at-risk " students than the 20% that require intervention, and who are unable to access the program due to a higher functioning than the lowest 10%-20% at the critical time of intervention.

Reading and writing achievement are the best predictors of school success, thus it is also important to gain a balanced understanding of the Reading Recovery™ program which includes not only criticisms of available research, but also relevant information concerning the positive outcomes to reading and writing development for "at-risk" students. Foundations for the current Primary Language Arts program, adopted by Newfoundland and Labrador's Department of Education, is modeled according to the principles of Reading Recovery™. It recognizes the value of the

principles and strategies, which defines Reading Recovery™ upon a child's reading and writing development.

Table 2

Implementation of the Labrador School District Reading Recovery™ Program.

Factor	95-96	96-97	97-98	98-99	99-00
Number of:					
Schools served	5	10	11	12[a]	12
Grade 1 students	125	227	294	303	240
Students in R.R.	50	84	99	118	112
R.R. Teachers	1	12	17	16[b]	24[c]
R.R. teachers in training	11	6	5	11	0
Discontinued students	27	47	70	64	67
Carried over students	15	19	15	23	18
Referred students	6	13	12	17	17
Unable to Continue	0	0	0	7	9
Moved	2	5	2	8	1
Average number of weeks in R.R. program	26.02	19.08	20.2	25.34	20

[a]   two schools closed.
[b]   six trained teachers no longer delivering Reading Recovery™.
[c]   four trained teachers taught one semester only.

Statement of the Problem

Support for the program's influence is found in the year-end summary reports submitted by each Reading Recovery™ teacher. This leaves the question of what happens after the child has completed the program and the one-on-one intervention is decreased? Do the discontinued children maintain their progressive achievements independently or do they fall behind and fail to grow as independent readers and writers in later grades?

The researcher poses the following two questions:

- How do discontinued students progress in reading and writing after Reading Recovery™ intervention compared to their peers who do not need a Reading Recovery™ program over a two-year period?

- How do discontinued students compare with students who were identified as needing the program within the same environments, but were unable to access Reading Recovery™ because of other factors (i.e., lack of trained Reading Recovery™ teachers to provide needed services) over a two-year period?

Thus, the first objective to be accomplished is to determine whether children discontinued from the Reading Recovery™ program (i.e., Treatment Group) continue to develop as effective readers and independent learners in subsequent grades; secondly, how do these children compare with both the Comparison Group and the Reference Group?

Limitations of the Study

There are four limitations identified in this study. First, the researcher was faced with a dual role for the duration of the study. This researcher was responsible for the implementation and research of this study, but also was a Reading Recovery™ teacher with the Labrador School District. The question of personal bias may arise concerning the reliability and validity of the study. However, having an experienced teacher of the program would enhance the understanding of the special circumstances required in the implementation of Reading Recovery™ in Labrador and a thorough knowledge of the requirements to providing an effective program.

Second, there was the issue of travel and geographical distance in order to meet with the participants. Through working in Labrador for the past six years, the researcher had established contacts in other schools within the district. Therefore, teachers could forward information regarding the study, as well as, provide support with testing of reading and writing levels. Full support was granted by the Labrador School Board and by the individual teachers themselves. The researcher was able to participate in the Hopedale and Goose Bay testing with the support of the Labrador School Board. In the end, having other teachers involved by administering procedures can indeed support the objectivity as a researcher/Reading Recovery™ teacher. This diminishes the effects of the first limitation stated. However, opened the study to criticisms of reliability due to multiple testers and maintenance of controlled testing administration of procedures and conditions. All testers were

experienced at administering controlled procedures with young children and all direction and procedures to be followed were explicitly stated.

Third, the initial proposal consisted of a detailed list of testing measures to assess all areas of language development. The measure that was selected to assess oral retelling of story events was re-evaluated and omitted after the first round of testing. Through consultation and examination of data, two main concerns were identified. First of all, the researcher and testers agreed that this measure was not assessing the intended objective: (i.e., orally retelling of facts and details of the material read). In a contrived audio-taped situation, the measure was unsuccessful and was invalid due to students' shyness, apprehension to a new situation, and lack of experience in oral expression of ideas. It was not the purpose of this research to evaluate cultural characteristics. Finally, although the directions were explicitly stated, it was decided that with seven people administering the assessment procedure there was a concern of lack of control of personal interpretation in the responses given by the participants.

Finally, the study involved the collection of data on 36 participants (i.e., 12 participants in each group). For the duration of the two-year longitudinal study, all groups remained constant. The participants for the Treatment Group and the groups for comparison were randomly selected from six schools in the district. However, due to the careful planning and implementation of the program in the school district and the concern to meet the needs of all students, only three schools were identified

as having students not receiving Reading Recovery ™. Thus, the data regarding the reference group is limited in that it does not involve participants from three of the six schools participating in the study.

CHAPTER 2

Review of Related Literature

Introduction

Although Reading Recovery[TM] has been implemented in New Zealand since 1976, it is still a new and sparsely researched program in North America. In 1984, the first implementation in North America took form as a pilot project in Columbus, Ohio (Gregory, Earl, & O'Donoghue, 1993). Reading Recovery[TM] was later implemented in Canada in 1988. The first Canadian school boards to implement Reading Recovery[TM] consisted of a school district in Scarborough, Ontario and school boards in Nova Scotia (Gregory et al., 1993). To date, the majority of the research that involves Reading Recovery[TM] focuses on studies within New Zealand and the United States. Although findings contained in Canadian year-end reports compiled based on statistics derived from Reading Recovery[TM] sites across Canada, "reliability cannot be established as findings have not been replicated in independent studies, in independent sites" (Gregory et al., 1993). Despite the lack of research based on the implementation of the Reading Recovery[TM] Program with Canadian children, Reading Recovery[TM] is a recognized program worldwide and all standards must be maintained throughout implementation in order to perpetuate a program adhering to the guidelines that are consistent with its trademark. Thus, much of the literature available is applicable to implementation strategies in Canada because the

standards of Reading Recovery ^{TM} are maintained worldwide (Canadian Institute of Reading Recovery ^{TM}, 1997; Gregory et al., 1993).

Controversies have arisen as to how to deal with reading and writing difficulties in young children (Clay, 1979; 1993b; Clay & Cazden, 1991; Gersten & Dimino, 1990; Shanahan & Barr, 1995; Wood, 1988). The difficulties children experience in learning to read, such as deficiencies in all areas of the curriculum and most importantly ones self-concept, go beyond their positive experiences with reading. Remediation has stood the "test of time" as being the most commonly used method of attending to the disadvantages that children experience in reading and writing difficulties. According to Pinnell, Lyons, DeFord, Bryk and Seltzer (1994), these forms of remedial programs at higher levels offer assistance to students late in their school careers, thus, problems of students' early school leaving, illiteracy rates and behavioural concerns within the school, all stem from a greatly reduced "self-concept". Therefore, the theoretical background of Reading Recovery ^{TM} is based on the premise that early intervention for six year- olds is necessary in alleviating potential reading and writing difficulties. Clay (1982) stressed that assistance for young children must come early in their school career simply because children get locked into unproductive strategies that block future learning. Such ineffective strategies are "hard to break" even with appropriate reading instruction. Therefore, based on this assumption, the greatest impact for "at-risk" readers will occur when a child is beginning to read and their mind is open to new ways of learning (Pinnell et

al., 1994).

Reading Theories for "At-Risk" Learners

After examination of the definitions outlining the characteristics of an "at-risk" learner, all share a common theme of students who have a higher probability of academic failure and dropping out of secondary education (Howard & Anderson, 1978; Lloyd, 1978; Pellicano, 1987; Ross, Smith, Casey and Slavin, 1995; Slavin, 1989; Stringfield & Yoder, 1992). "An overwhelming proportion of such students are economically disadvantaged, from single parent homes and members of minority groups" (Ross et al., 1995).

Specific trends in certain groups of students who lagged behind their peers in literacy development were identified by researchers at the Rand Institute on Education and Training (Allington, 2001). Students whose parents were unsuccessful in completing high school demonstrated achievement levels significantly below the achievement of those students whose parents were college graduates. The mother's age for certain students also demonstrated significantly higher achievements level for those children with older mothers. Analysis of minority groups demonstrated that over the past thirty years the gap in achievement levels between minority–majority groups has narrowed. There is still evidence that minority students demonstrate lower achievement than their majority peers with differences still significant by the end of the middle-school years. Allington (2001)

identifies that minority families compared to majority families experience more negative effects of poverty experienced in the communities of minority groups. Despite the lower trends in achievement mentioned, researchers at the Rand Institute on Education and Training have found no support for a relationship between achievement and children from single parent homes or children from homes with two incomes. In summary, researchers concluded that parental educational levels and family were related to achievement in reading and writing (Allington, 2001).

Difficulties in learning to read has negative effects on children who are recognized as "doing less well in other subjects, lower self esteem and pose greater discipline problems" (Shanahan & Barr, 1995). Despite this analysis of "at-risk" learners, Clay (1993b) does not ignore that socio-cultural factors such as those listed play a role in a child's becoming literate. She has, however, concluded that these factors are not exclusive to only "at-risk" learners. Limited reading and writing ability will manifest itself in adulthood, and thus, is strongly correlated with social problems, such as higher unemployment rates, crime, lack of community awareness, health concerns for the self and family (Shanahan & Barr, 1995).

The appearance that schools work better for certain types of families is relevant in identifying ways to achieve the goal to have all students reading and writing at the end of their school careers and have school work for all children. Allington (2001) identifies three challenges that are necessary to making public education work for everyone. The first challenge is identifying children who come

from a diverse background of knowledge and environments, thus recognising that income levels and a parent's education level may be a factor in a child's achievement level upon entering school and for the duration of their education. The second challenge is the demands of the "information age" on literacy development. To date, many programs have emphasized achieving basic proficiency levels for reading and writing. However, with the growth in information technology and the need to synthesize, analyze and evaluate information from multiple sources, there is a greater requirement on higher-order literacy skills and making students self-sufficient developing a "self-extending system". The third challenge in public education is that "our schools create more students who can read than students who do read" (Allington, 2001). Beginning reading appears to fall behind in upper-elementary grades, declines steadily in the middle grades and continues this trend into high school. It is necessary to identify students and adults that only read when they are required to read, rather than for interest or the love of reading (Allington, 2001).

Clay (1993b) identifies three steps in the prevention of reading and writing difficulties and encouraging reading for life. First, all children must have good preschool experiences; secondly, a good curriculum is necessary to provide effective initial instruction in literacy learning; and thirdly, implementation of an early intervention program is necessary for children who are behind their classmates. For most children, socio-economic factors are not the only reason in a child's ability to learn to read and write. According to Pikulski (1994), "reading failure is preventable

for all but a very small percentage of children". Thus, if provided with the appropriate interventions, it is only a matter of time for students to build effective strategies to develop a "self-extending system", which is required when becoming independent readers and writers (Clay, 1993b).

According to Gersten and Dimino (1990), there are two major orientations for reading instruction for "at-risk" students. These two orientations are the phonics approach and whole language approach. The phonics orientation to reading is based on the premise that children who are unable to read text fluently and accurately are also unable to derive meaning from text. Therefore, instruction in phonics and "word attack skills" are emphasized in the child's reading program. The goal is to build discreet skills, often in isolation, to improve reading abilities. The opposing orientation, the Whole Language approach or "literature-based instruction", emphasizes the integrative nature of speaking, listening, reading and writing. This approach focuses on the child tapping into all dimensions of language development to make learning an "information seeking process" that is meaningful and authentic for the child. Gersten and Dimino (1990) recognized that students need to spend time on phonic word analysis in the early grades. However, these skills should not be taught in isolation, but rather, the instruction should be integrated with the literature being read.

It is difficult for teachers and researchers to determine the most effective approach to reading instruction. Research directed at how children learn to read has

examined "methodological approaches and techniques, as well as, characteristics of classroom instruction and organization that appear to be related to student success" (Pinnell et al., 1994). It is believed that children acquire critical concepts about reading and writing from their daily experiences before formal schooling (Clay, 1979; 1985; 1993a). They learn about stories, about the way print works, and about important relationships such as sound/letter correspondence (Pinnell et al., 1994). Based on these premises, educator and researcher, Marie Clay conceptualized learning to read as "an ongoing sequential message-grasping process" (Clay, 1978). The program is based on the assumption that people learn by constructing meaning through social interactions as identified in the social constructivist theory of learning. Learners engage in social activities that support their learning, and they gradually take over the process, becoming independent literacy learners (Clay, 1991; 1993b).

With any theory of learning, there is a theory of instruction. According to Wood (1988), adults help children to solve problems and, in the process, provide conditions that help the children find patterns and regularities that they will use to solve problems alone in future encounters. Reading Recovery^{TM} is designed to provide the social interaction and supports the child's ability to work at a level conducive to learning, while accessing individual topics of interest to help children develop a love of reading. The child, not having full control, is guided with the support of an adult to problem solve, perform and enjoy the process while learning is occurring. The interaction with an adult is critical to the child's development in

building a system that leads to further learning (Wood, 1988), while enhancing access to appropriate texts of suitable reading levels, curriculum connection and topics of interests (Allington, 2001; Clay, 1993b).

Clay's (1991; 1993b) theory of learning to read and write is based on the principle that children construct cognitive systems to understand the world and language. These cognitive systems develop as "self-extending systems" that generate further learning through the use of multiple sources of information. In learning to read, children acquire a set of mental operations that make a "self-extending system" for reading and writing. These strategies allow them to use language and world knowledge and to integrate information from many different sources. According to Clay and Cazden (1991), readers need to use semantic, syntactic, visual informational sources, and phonological cues and to check them against one another. Clay's observations and study of early readers in New Zealand reveal that good readers use print in this way after one year of reading instruction. However, poor readers use a more limited range of strategies relying too much on what they can invent from memory without paying attention to visual information, guessing at unknown words and inventing a story. Therefore, the goal of Reading Recovery™ is to assist children in developing a "self-extending system" that enables them to build reading and writing skills and to continue to progress independent of one-on-one instruction (Clay & Cazden, 1991).

Ten Principles In Early Intervention Programs

Research presented to the National Institute of Child Health and Human Development, outlined in *The Prevention of Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998), identifies that " young readers having difficulty are mostly of average intelligence, and they have problems resulting from multiple or differing causes"(Pinnell, 2000). Thus, with intensive early intervention based on the diverse individual needs of students, the majority of students can learn to read and write. Snow, Burns, and Griffin (1998), identify ten principles that govern the design of effective early intervention programs, as follows:

1. Early intervention to prevent reading failure.

2. One-on-one assistance for those having the most difficulty.

3. Phonological awareness

4. Visual perception of letters

5. Word recognition

6. Phonics/decoding skills

7. Teaching structural analysis of words and learn spelling patterns

8. Fluency/automaticity in reading and writing.

9. Constructing meaning from print.

10. A balanced, structured approach that enables a student to apply skills to reading and writing.

The following discussion outlines how " the power of Reading Recovery^{TM}

lies in the integration of the ten research-based components and the careful, sensitive application of these components during a Reading Recovery™ lesson." (Pinnell, 2000).

Two components of Reading Recovery™ that make the program distinct are that it is designed as an early intervention program and that it is one-on-one individualized instruction. Both of these characteristics incorporate the first two principles identified by Snow, Burns, and Griffin (1998). The program is meant as a short-term intervention that will commence for a child at age six or in the first grade. According to Clay (1979, 1985, 1993a, 1993b), the first grade, or age six, is a critical time for at-risk students learning to read and write. Reading Recovery™ students are expected to make accelerated progress and be reading and writing at average levels in 12-20 weeks.

Phonological awareness, the third principle, is understood as a "type of metalinguistic ability that allows children to reflect on and manipulate the auditory units of spoken language" (Olsen & Griffith, 1993). This process involves more than teaching students to hear sounds in words. It actually involves breaking words into at least three possible component of phonological awareness: syllables, onset and rimes, and phonemes (Goswami & Bryant, 1990). Phonological awareness has received so much attention and is included in effective early intervention programs because of its "strong, consistent, and positive correlation with word recognition and reading success" (Olsen & Griffith, 1993). Children selected in the Reading

Recovery^{TM} program are identified as the lowest achieving students in their first grade classes and the majority selected need instruction to develop phonological awareness (Pinnell, 2000). This skill is assessed in the *Observational Survey of Early Reading Achievement*, Hearing and Recording Sounds subtest (Clay, 1993a). Results on this subtest provide data to be developed during the daily lesson through the use of sound boxes in writing, making and breaking, sound books and specific questioning techniques (Lyons, 1993) that direct strategy use. With the careful introduction of more challenging texts by the Reading Recovery^{TM} teacher, children are provided with the opportunity for "practice in orchestrating the processes of searching, checking, and using phonological information in connection with meaning and knowledge of language syntax" (Schwartz, Moore, Schmitt, Doyle & Neal, 1999). During instances of difficulty during reading, Reading Recovery^{TM} teachers help children to link what they know about how words work and to solve their difficulty through analogy of familiar words, thus, developing skills in phonological processing through the use of meaningful text (Schwartz et al., 1999).

The identification and perception of letters is identified as the fourth principle in an effective literacy program. One characteristic of the lowest achieving children accessing Reading Recovery^{TM} is often they have little knowledge of letters and need to be taught how to look at print. Verbal, visual and tactile approaches are used, as well as, movement to develop visual spatial relationships. "Letter-work" is an active process in which the children write letters in the air, on a white board and

chalkboard, in salt, sand, water and gel. Letter development is demonstrated and practiced on any medium that can foster sensory integration. Children then transfer their learning to create individual alphabet books and through the manipulation of magnetic letters.

The fifth principle recognizes the need for students to have consistent instruction in building and expanding a repertoire of words that the child can identify fast and fluently. For children with an understanding of a few letters and sounds, the goal is learning to look at print and helping them develop success with early level books such as levels one-three. This task begins early in "Roaming Around the Known" in which simple known words such as a child's name are brought to fluency. When moving a child into lessons, writing extends from known words in the child's existing word bank to the teaching of words that occur most frequently in language and words needed most often in writing. Words that the child has some knowledge of but are not solid in their repertoire are encouraged and built on after a writing word bank of has been established . Activities to aid in the development include those identified in letter identification (Clay, 1993b).

Phonic or decoding skills are often the "first line of defense" in the remediation of reading and writing difficulties, which is often provided by Special Education Services (Gersten & Dimino, 1990). There are several different methods of ensuring that phonics development is occurring in a Reading Recovery^{TM} Lesson.

First of all, these skills are not taught in isolation, but are developed in the natural progression of the child's literacy development in which the child is " taught to apply that knowledge in reading and writing" (Clay, 1979, 1985, 1993b; Pinnell, 2000). An individual child's needs in word analysis are examined from the beginning of their program with a word test such as the *Burt Word Reading Test* and the *Observational Survey of Early Reading Achievement*, Hearing and Recording Sounds subtest (Clay, 1993a; Gilmore, Croft, & Reid, 1981). During lessons, a "Running Record" is conducted on the new book to "analyze student's errors while they read" (Clay, 1993a, 1993b, 2000; Pinnell, 2000). It is this analysis of text, which enables a Reading Recovery™ teacher to provide individualized instruction in word-solving while reading meaningful text. Strategies identified may include chunking and identifying common word parts, letter cluster sound analysis, in which " all instruction is directed toward helping children learn how words work and the automatic, rapid recognition of words while reading for meaning" (Pinnell, 2000).

The seventh principle is structural analysis of words. Word-solving abilities can also be fostered through problem-solving words in isolation and in meaningful text. Children with limited letter knowledge need intensive work with letters, thus work on words in isolation does not occur until students know 15-20 letters (Clay, 1993b). Work in isolation is accomplished through "Making and Breaking", a procedure that starts using familiar words to a child with "predictable (regular) letter/sound sequences, to simple analogies, and to less predictable letter/sound

sequences" (Clay, 1993b; Pinnell, 2000). Magnetic letters are used in this procedure to ensure that the child is an active participant and can manipulate word parts in developing understanding of word solving. Using known words can help the child develop their knowledge of how words work and enable them to move from what they know to make more complex associations, thus emphasizing flexibility and applying learned principles in solving unfamiliar words. Teachers can guide the student's ability to make connections by systematically tracking sound letter sequences and providing opportunities to problem solve in meaningful text.

Teaching students to use structural analysis and to recognize spelling patterns in words is also an integral part of reading and writing. Once again, isolation is used to demonstrate principles of structural analysis in order for students to gain control of spelling patterns in the English language. During teaching points in the running record book and the new book children are guided to take words apart in reading, as well as, to construct words in their writing through the use of sound boxes and analogies developed in "making and breaking". There is a powerful link between reading and writing and the goal is to have students apply knowledge of word structure to "take words apart" in reading and to construct words quickly and efficiently.

Reading Recovery™ also emphasizes fluency and phrasing in oral reading, which is identified as the eighth principle of effective literacy programs. Although it is important to provide opportunities to have students read new and challenging text

in order to develop problem solving abilities, it is also essential to develop fluent reading in relation to spoken language. It is common for students to develop "slow, staccato, word-by-word" reading (Clay, 1993b). It is noted that the beginner reader has to accomplish many tasks to becoming literate such as learning to look at print, cross-checking visual, structural, and visual information, monitoring and self-correcting. Taking control of these behaviors often slow down new readers and without direct instruction, behaviors can become habitual in nature. " It is an overriding principle that as soon as control is firmly established the teacher should begin to call for flexible use of that control" (Clay, 1993b). Phrasing and fluency can be accomplished through rereading familiar text, selecting repetitive texts, a student's writing and cut up stories. Reading Recovery™ teachers can also demonstrate phrasing on text to give the student a model to follow (Askew, 1993). Fluent reading cannot be imposed on a student's continuous development. There are no short cuts and time is needed based on individualized instruction to develop fast control over the specific reading behaviors that make a "complex whole operate smoothly and fluently" (Clay, 1993b).

Teaching for comprehension, the ninth principle of an effective literacy program, is not explicitly identified in the _Reading Recovery: A Guidebook For Teachers in Training._ Comprehension, unlike other processes identified such as decoding, phonological awareness and fluency, is taught through an integrated approach in the Reading Recovery™ program. One of the most fundamental

teachings in Reading Recovery™ is that reading must make sense. Through instruction, students are directed to use a variety of strategies in searching for meaning in text. Goals of comprehension development start with the careful selection of text, an introduction to the new book, as well as, during reading the teacher and student engage in conversation concerning the story (Clay, 1993b). Reading Recovery™ teachers question students to connect meaningful text to their own experiences, and to connect sources of information such as structural, visual and meaning with picture clues (Lyons, 1993).

Finally, Reading Recovery™ is recognized as a balanced, integrated approach to literacy intervention, which is identified as the final principle of an effective program in literacy development. Skills developed in Reading Recovery™ are "interrelated to a set of learning experiences" (Pinnell, 2000) which are intentionally orchestrated to provide students with opportunities to make connections across the framework of the lesson. One key concept of Reading Recovery™ is that all new learning is reinforced and connected throughout the lesson's framework based on the unique needs of the student. All reading and writing lesson components are interconnected to ensure maximum learning of a concept, and teaching for a strategic process, thus, providing practice of important concepts through a balance of activities to achieve accelerated progress (Pinnell, 2000; Wasik & Slavin, 1993).

Effectiveness of Reading Recovery[TM]

Evidence supports the conclusion that Reading Recovery[TM] does bring the learning of many children up to that of their "average achieving" peers (Askew, Wickstrom, & Frasier, 1999; Brown, Denton, Kelly & Neal, 1999; Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Gregory, et al., 1993; Hovest & Day, 1997; Jaggar & Simic, 1996; Moore & Wade, 1993; 1998; Pinnell et al., 1994; Ross, Smith, Casey and Slavin, 1995; Shanahan & Barr, 1995; Wasik & Slavin, 1993). In previous research, elementary classroom teachers were unable to distinguish those children in receipt of Reading Recovery[TM] from "average-achieving" classmates (Moore & Wade, 1993), thus, further supporting the long-term effectiveness and development of a "self-extending system" with Reading Recovery[TM] intervention.

Center, Wheldall, Freeman, Outhred, and McNaught (1995) evaluated the effects of Reading Recovery[TM] in ten primary schools in New South Wales. Children were randomly assigned to a Reading Recovery[TM] group or a control condition in which they received only resource support typically provided to at-risk students. The results indicated that at short-term evaluation (i.e., 15 weeks), the Reading Recovery[TM] group was superior to the control students on all testing measures. An evaluation at mid-term (i.e., 30 weeks) indicated that there were no significant differences between the study group and the control groups. It is also suggested that the results of the mid-term results be approached with caution as the control group had lost 7 of the 23 participants from the original cohort in the short-

term evaluation. Center, Wheldall, Freeman, Outhred, and McNaught (1995) also indicated that the results of this study only apply to New South Wales where the Reading Recovery[TM] program is relatively new. It was recommended that monitoring of regular classroom procedures for students in Reading Recovery[TM] and after discontinuation would provide additional valuable data in the evaluation of Reading Recovery[TM] programs.

In a comparison study, Pinnell, Lyons, DeFord, Byrk, and Seltzer (1994), compared four programs used in the remediation of reading difficulties. The programs included Reading Recovery[TM], Reading Success, Direct Instruction Skills Plan and Reading /Writing Group. The overall purpose of the study was addressed by three research objectives:

- To compare the effectiveness of Reading Recovery[TM] with a skill based, one-on-one instructional reading program;

- To compare Reading Recovery[TM] with other intervention programs that requires a minimal amount of in-service training.

- To compare Reading Recovery[TM] with reading and writing group based instruction program.

A total of 403 students were selected to participate in the study. Each school district offered Reading Recovery[TM] as an early intervention program. One school in each district was selected for a treatment site to study Reading Recovery[TM] and three additional schools in each district were randomly selected and assigned to one

of the other three intervention programs being studied.

Reading Success is an individual tutoring program similar to Reading Recovery[TM] in that lessons are offered 30-minutes daily by a certified teacher. The teacher training is identified as a condensed version of the Reading Recovery[TM] teacher training (Pinnell et al., 1994). Direct Instruction Skills Plan, an individual tutoring program, is also taught by certified teachers. Certified teachers require a 3-day in-service session and are encouraged to use their own initiative and creativity in lesson framework, thus signifying a lack of a structured approach. The final intervention program for comparison is the Reading and Writing Group. The process and framework of this program is indicative of its name i.e., a small group tutorial program. This program is actually taught by a trained Reading Recovery[TM] teacher with the same goals for instruction. Dependent measures assessed included dictation (i.e., hearing and recording sounds), text reading level, vocabulary and comprehension.

The results of research comparing the four intervention reading programs support earlier conclusions that Reading Recovery[TM] is an effective intervention program for helping "at-risk" first grade children learn to read. Reading Recovery[TM] was the only group for which the mean treatment was significant on all four measures at the end of the study. Reading Recovery[TM] was also the only program out of the four studied that indicated longitudinal effects of achievement (Pedron, 1996; Pinnell et al., 1994). Alternative explanations for the factors contributing to

success of remedial programs emphasize "individual instruction, instructional emphasis and teacher professional development" (Pinnell et al., 1994). One significant factor is that Reading Recovery™ teachers had an ongoing network of support to call on during the study through continuing contact sessions and professional conferences, thus, enabling teachers to effectively problem solve and maintain a system not only to help the student, but to effectively improve upon their own teaching (Pinnell et al., 1994).

A comparison was conducted by Wasik and Slavin (1993), which reviewed five early intervention one-on-one tutoring programs. The study involved the analysis of five preventive tutoring programs: Reading Recovery™, Success For All, Prevention of Learning Disabilities, Wallach Tutoring Program and Programmed Tutorial Reading. All programs evaluated included similar criteria such as early intervention in the primary grades and one-on-one instruction delivered by a certified teacher, paraprofessional or a volunteer.

The results indicated that tutoring programs were very costly, but demonstrate great potential as effective innovations. Three trends were identified as having positive effects on children learning to read. First of all, programs with the most comprehensive models of reading, and the most complete instructional interventions, appear to have larger impacts than those emphasizing only a few components. Secondly, the content of the program is critical. Finally, it appears not enough just to have a tutor. Programs that used certified teachers as tutors appeared

to obtain substantially larger impacts than those using paraprofessionals. Based on the trends indicated, Reading Recovery™ demonstrated high effectiveness compared to the other programs and the effects were maintained for at least two years. Once again it is indicated "more work is needed on long-term effects of tutoring, not only on achievement, but also on special education referrals" (Wasik & Slavin, 1993).

A subsequent comparison study analyzing Reading Recovery™ and Success for All, another program identified for its significant and sustained effects on the reading performance of "at-risk" children. Both Reading Recovery™ and Success for All are based on the principle to target "at-risk" students early when the greatest impact will occur on their learning. A common element in both the Reading Recovery™ and Success for All programs is the design of the program. Both programs are also based on the premise of providing individual tutoring by specially trained teachers on their program. Despite this commonality, a much more intensive year-long training and continuing contact plan exists for Reading Recovery™ teachers" (Ross et al., 1995).

Reading Recovery™ focuses on early intervention for six-year olds where as Success For All focuses on heterogeneous ability- grouping for grades 1 to 3 and individual twenty-minute tutoring sessions for children having difficulty within their groups. Priority is given to grade 1 students. However, all students are considered for individual tutoring. Inclusion of all students in the school may mean acceptance of special education students, students who have been retained and those over the

age of 6 years. Basically, Success For All is a comprehensive program for the school including family support, cross aged grouping and the development of comprehension and decoding skills.

Success for All may take a somewhat different approach at various sites, which differs from Reading Recovery™. The Reading Recovery™ program is maintained on worldwide standards and guidelines for implementation as set out by Marie Clay. Although both programs have similar characteristics, such as individual tutoring and certified teacher training, "each program is guided by a different philosophy and operational approach" ,thus, comparison of both programs is carefully analyzed when considering results (Ross et al., 1995).

Ross, Smith, Casey, and Slavin (1995), examined both programs in detail examining reading and reading comprehension, teacher reactions and effects on Special Education. Comparisons were conducted with the Reading Recovery™ group based on both tutored and non-tutored students in the Success for All program because both individually tutored and non-tutored students are eligible for the Success for All program.

Results indicated that there were no significant differences in achievement levels between the tutored groups studied in oral reading, thus, identifying no overall advantage to either program. A significant difference was noted in how tutored students use word attack strategies over the Reading Recovery™ group's strategy use. However, the Reading Recovery™ groups passage comprehension and word

identification were identified as statistically significant over the achievement of the Success for All tutored students.

Comparison of the Reading Recovery [TM] group and the non-tutored students involved in the Success for All program. The students being compared were identified as not needing individual tutoring in the Success for All program. There were no significant differences noted in oral reading, word identification and passage comprehension, however, in word attack skills the Success for All participants scored significantly higher that their Reading Recovery [TM] group's participants. Based on the analysis of the Success for All program and understanding that the program is intended to reach all students, one can conclude that the non-tutored students are those students that would be achieving at average levels without Success for All.

One criticism of Reading Recovery [TM] research is the lack of support for the program's effectiveness beyond the initial year of support for the child (Grossen & Coulter, 1997). It is identified that evidence for Reading Recovery [TM] as an effective program lies in its documentation to help "at-risk" students become efficient readers in 12-20 weeks. The question arises, if discontinued Reading Recovery [TM] students will sustain gains made when intensive one-on-one instruction is no longer required.

Askew, Fountas, Lyons, Pinnell, and Schmitt (1998) identified two key characteristics of the gains that discontinued students exhibit in their subsequent reading and writing development:

- Upon completion of Reading Recovery™ most students sustain their gains.

- The achievement performance of discontinued students increases after Reading Recovery™ intervention.

Shanahan and Barr, (1995), examined the long-term effectiveness of Reading Recovery™ through examination of previous research on the program. It was identified that children who have been successfully discontinued from Reading Recovery™ "continue to achieve, on average, better than" (Shanahan & Barr, 1995) their peers not accessing the Reading Recovery™ program. Although participants were identified as maintaining learning gains, when compared to their "average-achieving" peers, distinguishing patterns in the reading development were recognized. It was outlined that there was a variance existing within the sample, and the rate of growth slowed substantially after the individual tutoring is discontinued. In the second grade, the rate of growth tended to be slower than for the their "average-achieving" peers, thus indicating a challenge for students in using their "self-extending system" effectively. However, by the third year, after being placed in the challenging environment of the classroom to develop independence for their own learning, students continued to maintain gains and achievement is comparable to their "average-achieving" classmates. It is expected that there would be a decline in skills after discontinuing an intensive intervention program, however, the development of a "self-extending system" and maintaining achievement in the third grade comparable to "average-achieving" peers attested to the program's overall

effectiveness.

Both reading and reading comprehension levels were also examined by Moore and Wade (1998) in a two-year longitudinal study of fifth and sixth grade students. The participants in this study were compiled into two study groups: 121 ex-Reading Recovery students and a comparison group of 121 "average-achieving" students drawn from the same classes. Reading and reading comprehension levels were assessed using the *Neale Analysis of Reading*. Mean scores were computed by the use of a t-test analysis. Results indicated that the mean reading age equivalent for the ex-Reading Recovery [TM] group was significantly different when compared to the comparison group of "average-achieving" peers. The mean reading age for the ex-Reading Recovery [TM] group was demonstrated as 11.72 months higher than the comparison group. Similarly, examination of reading comprehension levels also showed a significant difference between groups with a mean difference of 12.88 months. The ex-Reading Recovery [TM] group demonstrated reading comprehension levels at 9 years, 9 months, whereas, the comparison group demonstrated scores one age level lower with a mean reading comprehension level of 8 years, 8 months. Conclusions by Moore and Wade (1998) suggested that Reading Recovery [TM], as an early intervention program, not only provides children with a firm foundation in early reading development, but further enables students to sustain gains over time and make further progress building upon previous learning. The researchers further call for other longitudinal studies to examine long-term effects and assess whether

the findings exhibited in the study described are corroborated to confirm the validity and reliability of the conclusions identified.

Gregory, Earl and O'Donoghue (1993), conducted a pre-test/post test study of 270 first grade students in Scarborough, Ontario. The students were selected based on their status according to the groups required. There were four groups identified: Reading Recovery™ students currently receiving Reading Recovery™ instruction; a comparison group identified as "at-risk", but unable to receive Reading Recovery™ instruction; and a reference group identified as average - achieving same-aged peers. To evaluate the impact of Reading Recovery™, both "at-risk" groups were compared to a reference group comprised of their "average-achieving" peers (Gregory et al., 1993). Each participant in the study was evaluated in the fall and spring using the *Woodcock Reading Mastery Test*, spelling dictation, and writing assessment tasks.

The Reading Recovery™ students demonstrated significantly higher scores overall and improved at a significantly faster rate than the participants not receiving Reading Recovery™. Further analysis identifies that, although Reading Recovery™ was proven as a successful intervention for "at-risk" students, "the Reading Recovery™ program did not always succeed in bringing the performance of the Reading Recovery™ students to the levels of their average achieving classmates" (Gregory et al., 1993). Despite this finding, it was identified that over time Reading Recovery™ students made greater gains than did the Reference Group, thus,

indicating that the Reading Recovery™ group made significant gains in their program and demonstrated a "self-extending system" that allowed students to sustain gains independently without continued one-on-one intervention.

Further support for long-term effectiveness is imbedded in "The Texas Follow-Up Study" conducted at the Texas Woman's University (Askew et al., 1999). The study discussed is a three-year longitudinal study comparing the literacy performance of discontinued Reading Recovery™ students at grades two, three and four, with a random sample of their average-achieving peers. Results indicated that all scores on standardized measures increased across grade levels. Approximately 70% of the identified Reading Recovery™ students demonstrated scores average or meeting the passing criteria as identified by the *Texas Assessment of Academic Skills* and the *Gates MacGinitie Test*. Assessment of text reading levels at the third and fourth grades and the written retelling assessment were identified as comparable to their average-achieving peers.

Similar results were identified by Hovest and Day (1997), involving a study conducted at Ohio State University looking at reading and writing proficiency on the *Ohio Fourth Grade Proficiency Test*. Two cohorts were selected including grade 4 students in 1991-1992 and 1992-1993. Results showed no significant difference between the two cohorts identified each year. In 1991-1992, 2, 714 children were assessed on reading and 2 813 were assessed on writing proficiency. Upon completion of this study, 71% of the Reading Recovery™ students were at or above

the required proficiency in reading and 75% were at or above in writing skills.

The second cohort of grade 4 students studied in 1992-1993, yielded similar results on the proficiency tests in reading and writing. In the reading section on the *Ohio Fourth Grade Proficiency Test*, 2, 994 students were examined. 72% of the Reading Recovery™ students were at or above the proficiency criteria in reading indicating 1% higher than that of the cohort studied in the previous year. In 1992-1993, 67% of the Reading Recovery™ students studied were at or above the writing proficiency level identified by the Ohio State Government. This was noted as 8% lower than the cohort studied in the previous year but was not identified as a significant difference in achievement between the two groups. A significant indicator identified in the selection of participants to the validity of the study was that all students studied in the cohorts for 1991-1992 and 1992-1993 were all the students served by the Reading Recovery™ in the 69% of the eligible districts that submitted data and not just a random sample of the Reading Recovery™ population in the area.

Brown, Denton, Kelly, and Neal (1999) conducted a five-year longitudinal study of discontinued Reading Recovery™ students in San Luis Coastal School District from the period of 1993-1998. Participants were assessed using the *Iowa Tests of Basic Skills* and *Stanford Achievement Test* at the end of each school commencing in 1993. Results of student performance is identified as comparable to the previous two studies discussed earlier indicating that 75% of students

successfully discontinued from the Reading Recovery[TM] program achieved average or above average test scores. This is both significant and impressive, noting that the participants involved in the study were the lowest achieving students in their grade 1 class compared to their same-aged peers.

Importance of this study to the long-term effectiveness of Reading Recovery[TM] lies not only in the results indicated through investigation, but an important contribution lies within the research design and assessment measures. In summary, the study tracks a group of Reading Recovery[TM] students from the second grade to the fifth grade. The population of Reading Recovery[TM] consisted of 760 students, which is identified as a large enough population to yield significant results with more reliability and validity. Another concern with reliability and validity of research in Reading Recovery[TM] is the assessment tools used in the determination of achievement levels. Brown et al., (1999), used standardized achievement tests such as *Iowa Tests of Basic Skills* and *Stanford Achievement Tests*, which are independent of the Reading Recovery[TM] program. Therefore, the study identified presents new evidence independent of results by supporters or researchers representing Reading Recovery[TM].

A follow-up study conducted by Jaggar and Simic (1996), compared the achievement of four cohorts between 1990-1994 in New York State. The cohorts involved both Reading Recovery[TM] students and comparison groups consisting of a

random sample of their same aged peers. The study was conducted on second and third graders between 1990-1992 and 1992-1994. Researchers collected data on 1,596 Reading Recovery™ second graders and 604 third graders. One factor examined in selection of the Treatment Group was criteria for participants being placed in the Reading Recovery™ group. Based on the selection of participants not all participants had to be successfully discontinued from their Reading Recovery™ program. Out of the 1,596 second graders and 604 third graders selected for the study, 74% and 58% respectively, successfully completed all their lessons. The Comparison Group was comprised of 1,235 second graders and 402 third graders with no special selection criteria just to be same aged classmates.

Participants were measured using informal text reading and the *Slosson Oral Reading Test- Revised*. Thus, a combination of standardized and non- standardized assessment tools were utilized in the results of the study. Results indicated that even though not all children in the Reading Recovery™ Group having successfully completed all their lessons, the mean text reading level was at or above average at the end of the second and third grades. In all but one testing trial, the mean text reading levels for each cohort for both second and third graders was comparable or slightly higher than the mean text reading levels of the Comparison Group indicating no significant difference in the achievement of both groups. Results on the *Slosson Oral Reading Text-Revised* also indicated similar results to other assessment measures using standardized assessment measures. Sixty-nine percent of second

grade participants and 72% of third grade participants in the Reading Recovery[TM] Group scored at or above the average level for word recognition skills, which was not significantly different from the Comparison Group A pattern in achievement was also noted in the performance of the Reading Recovery[TM] Group that indicated the mean at the end of the second grade testing trials was average or expected performance for the end of the second grade, however, at the end of the third grade testing trials, the mean achievement level for the Reading Recovery[TM] Group was higher than average performance (Jaggar & Simic, 1996). This further supports the findings of Shanahan and Barr (1995), indicating that performance is sustained after discontinuation of intervention, however, higher achievement is identified after a year of independent learning, thus, supporting the theory of the development of a "self-extending system" after the discontinuation of extensive intervention.

Parental Views of Reading Recovery[TM]

One aspect of Reading Recovery[TM] that deserves considerable attention is the view of parents on the effects that Reading Recovery[TM] had on their children. It is important to make objective measures of children's progress in Reading Recovery[TM] and most studies have shown sustained and maintained progress (Askew et al., 1999; Brown et al., 1999; Center et al., 1995; DeFord et al., 1987; Gregory et al., 1993; Hovest & Day , 1997; Jaggar & Simic, 1996; Pedron, 1996; Pinnell et al., 1988; Pinnell et al., 1994; Ross et al., 1995; Shanahan & Barr, 1995; Wasik & Slavin,

1994). The views of parents have been criticized as being more subjective in nature, however, an important part of the success of any reading program. The study consisted of 47 parents or guardians whose children met one of three conditions for the study: their child was currently in the Reading Recovery™ program; their child was successfully discontinued from the Reading Recovery™ program; or their child was referred for further support because of special needs that had prevented them from reaching average levels for their age (Moore, & Wade, 1995).

The 47 parents or guardians that had been interviewed were consistent and positive in their views about Reading Recovery™ and its benefits. These parents ranged in socio-economic status and varied in ethnic groups. Topics for consideration included English as a second language; how their child's reading strategies had changed; enjoyable nature of reading sessions at home; their child's confidence and self-esteem; their child's progress and availability of Reading Recovery™ for other children.

Several trends emerge as a result of the study in question. Many parents changed the way that they helped their children as a result of strong liaison between home and school and the opportunities to view and discuss Reading Recovery™ sessions. A second trend identified was all parents referred to increased confidence and self esteem in their children and an increased willingness to take risks. All of the parents interviewed took their responsibilities seriously, making time for reading in the evenings and prioritizing the activity identifying it as a time of fun and

enjoyment to share with their child (Moore & Wade, 1995). Despite the evidence that not all children progressed and succeeded with Reading Recovery^{TM}, parents were positive about the progress that was made with their children.

Finally, there were many concerns expressed over equality in accessing Reading Recovery^{TM}. Parents of children who had benefited from the program endorsed and supported that everyone who needs the program should have equal opportunity to receive the program (Moore & Wade, 1995).

Ross, Smith, Casey, and Slavin (1995) evaluated effectiveness of Reading Recovery^{TM} a step further and examined the views of teachers. A comparison study was conducted identifying the similarities and differences of Reading Recovery^{TM} and Success for All; two early intervention programs identified as meeting the needs of "at-risk" readers and writers. When evaluating teacher experiences and attitudes toward both programs, a survey requiring a rating response on a 5-point Likert Scale was utilized along with teacher interviews. Trends in teacher reactions strengthen the overall impression of both program's effectiveness in helping " at-risk" students. Reading Recovery ^{TM} teachers emphasized that students in the program had increased reading skills, improved self-confidence and were considered to be achieving comparable to their average-achieving peers. A more positive school climate was noted as the effects of the program strategies and classroom teachers recognized the use of Reading Recovery^{TM} methods into the regular classroom. Rinehart and Myrick (1991) also identified that classroom teachers were more likely

to consult with Reading Recovery™ teachers on strategy use to implement in the classroom for their own teaching purposes, thus supporting program effects in all areas of the student's instruction.

Success for All teachers also perceived the program as beneficial to their students but specifically liked elements more related to program design rather than program effects. Characteristics identified as beneficial were listening comprehension, individual tutoring, and assessment over an 8-week period. Teachers focused on the benefits of a school-wide approach to intervention with the belief that all students can learn and the importance of a mutual decision-making process among staff and administration in program implementation. These principles are also identified as part of the Reading Recovery™ Program.

Professional Development

The best way of addressing the needs of struggling readers and writers lies in a comprehensive and sustained intervention plan (Allington, 2001). This may be achieved through improving classroom instruction and enhancing access to intensive and continued professional development. Allington (2001) argued that improving classroom instruction does not refer solely to purchasing new basal readers, remedial or resource programs to compensate for classroom teaching or by just "adding a souped up technology component". Effective schools regularly demonstrate quality reading and writing instruction in their classrooms, thus the need to improve and

expand the quality of teacher instruction. Recent studies (Bembry, Jordan, Gomez, Anderson & Mendro, 1998; Ferguson, 1991; Pressley & Allington, 2000; Snow, Barnes, Chandler, Goodman & Hemphill, 1989) demonstrated the impact of high-quality teaching on classroom instruction. Bembry, Jordan, Gomez, Anderson, and Mendro (1998) examined student achievement in classrooms identified as having the high-quality instruction and those enrolled in classrooms of lower quality instruction. Standardized reading assessments were examined after three years of instruction. The study indicated that students enrolled in the higher-quality instruction achieved 40-percentile ranks higher than their peers enrolled in the comparison group. Pressley and Allington (2000) examined similar results when studying exemplary and typical teaching instruction. The significant finding that the lowest achieving children in the exemplary teaching classroom performed at the same level as their "average-achieving" peers in the typical classroom with regular teaching instruction. Both studies conducted by Ferguson (1991) and Snow, Jordan, Gomez, Anderson, and Mendro (1991), revealed that the most powerful predictor of student achievement was the quality of the teaching instruction. Neither socio-economic status of the family or parental profiles "were as powerful as the good instruction in shaping the academic futures of students" (Allington, 2001).

Duffy and Hoffman (1999) contend that a good first step to developing a more effective instructional program as a continuous plan to upgrade and support teacher's expertise. During a teacher's career, most learning occurs "on the job",

thus fostering teacher professional development must begin at the school level. According to Pinnell and Lyons (2001) providing professional development for teachers involves providing different processes to accommodate the myriad of knowledge, experiences and backgrounds that a teacher possesses. It is important that every school have access to a teacher or teachers who have expertise in the area of reading and writing. The expert described is not meant to "fix" a child and return him/her to a "broken" classroom. The need is to assist classroom teachers in designing good teaching practices. This may be accomplished through the use of professional development resources, school improvement projects that require a team-based intervention, and professional conversation (Allington, 2001). Johnson, Guice and Brooks (1998) researched the effect of professional conversation on teacher development. It was identified that the number and quality of professional conversations among staff within a school assisted in teacher development. Professional conversations included personal, and private discussions, as well as one-to-one or small-group conversations about teaching. Conclusions from the study revealed that schools that engaged more professional conversations were better adapted to meet the needs of the struggling reader whereas, schools that were not successful in meeting the needs of the struggling readers had fewer professional conversations with fewer faculty members. The more successful conversational schools appeared to have a decentralised decision making system. Teachers appeared to be involved in decision regarding curriculum, instruction and assessment.

Interaction in schools involved "teams, clusters, committees and task forces of teachers" (Allington, 2001) to help in making decisions. Evidence of sharing and support is relevant in the development of quality instruction and meeting the needs of "at-risk" students.

Teacher-training for Reading Recovery™ is described as extensive and long term (Askew & al., 1998; Boehnlein, 1987; Clay, 1991a, 1993b). The key factor to the "delivery of a quality Reading Recovery™ program is the training of teachers" (Clay, 1991a). The acceptance of Reading Recovery™ as a program, is acceptance of a "restructuring phenomena" such as work redesign, changing roles of teachers and increased supervision of Reading Recovery™ teachers. Planning and implementation begins with a top-down approach including the need for support by school board personnel, administrators, staff and parents (Rinehart & Myrick, 1991). Without the support of all involved in the school, the conflicting theories and designs of reading and writing can interfere with program effectiveness. Thus, it is necessary to have an individual acting as program manager to ensure all guidelines are met and knowledge is distributed accurately and efficiently to the school district.

The successful implementation of the program is attributed to a unique two-tiered training model that involves "teachers-training-teachers". Training in a school district commences with the intensive training of a teacher leader (Askew et al., 1998). This two-tiered process begins with an intensive yearlong post-graduate course that is administered full-time at a university training centre approved by the

North American Trainers Group. According to Askew, Fountas, Lyons, Pinnell, and Schmitt (1998), the teacher leader-training model includes the following components to gain the level of expertise to train other Reading Recovery™ teachers:

a) An in-depth study of program procedures and theoretical foundations

b) Working daily with students over the course of a year implementing strategies and procedures

c) Comprehensive Study of theories of reading and writing for "at-risk" learners

d) Training processes of working with adult learners

e) Management and administrative requirements for the successful implementation of the Reading Recovery™ program within their school respective districts

After a successful year of training, the teacher leader will return to their respective school districts to begin implementation of Reading Recovery™ program. The teacher leader is responsible for the training of Reading Recovery™ teachers, implementation and maintenance of the program. The teacher leader is also required by the guidelines for teacher leaders to work with four of the lowest achieving grade 1 students to maintain their own skills and development as a Reading Recovery™ teacher.

The second tier of the training model involves a yearlong commitment of

teachers at the school level to train and implement Reading Recovery™ within their schools. As teachers receive training they simultaneously implement the program with their children, under the guidance of a teacher leader (Askew et al. 1998; Clay, 1991a; Ross et al. 1995). According to Askew, Fountas, Lyons, Pinnell, and Schmitt (1998), it is " through clinical and peer-critiquing experiences, teachers learn to observe and describe students' and teachers' behaviours", thus, developing skills in making effective instructional decisions quickly based on the unique needs of the students. In subsequent years, teachers continue to update their knowledge and skills through continuing contact sessions and peer consultations. It is through on-going professional development that "Reading Recovery™ teachers and Reading Recovery™ teacher leaders continue to refine and further develop their skills to effectively teach children who are " at-risk" of failing to learn how to read and write" (Askew et al., 1998). A unique feature of the year-long staff development program is observing colleagues teaching a Reading Recovery™ lesson behind a one way mirror called "behind the glass" sessions. Through a technique called *talking while observing*, a trained teacher leader guides the group discussion in a way that enables teachers to sharpen their observation skills, make hypothesis, and construct conceptual understandings about how students think and learn (Ross et al., 1995).

Clay (1991a) identified a critical factor in the Reading Recovery™ program as the training of teachers and teacher leaders. It is in training of teachers that Clay (1991a) describes as a "breaking ground to changing old ways of teaching" and to

stimulate new ideals, methods and principles as to how children can acquire new learning. At all times, the in-service sessions aim to enrich teachers understanding of their children and to sharpen the use of special teaching procedures in order to maximize effectiveness. A large percentage of teacher learning take place in the "behind the glass" component of the continuing contact session. This presents the opportunity for teachers to extend and consolidate their understanding of reading processes and recovery procedures, as well as, to consult with peers concerning issues and topics related to the implementation of Reading Recovery[TM] (Clay, 1991a).

Criticisms of the long-term expense and poor cost-effectiveness of a Reading Recovery[TM] program are ongoing (Grossen & Coulter, 1997; Heibert, 1994; Shanahan & Barr, 1995). Dyer (1992) identified that initial implementation of a Reading Recovery[TM] program as being expensive, as with the implementation of any new program. However, the short-term annual cost of Reading Recovery[TM] is cost-effective when examining the savings in retention of children and the reduced need for special education services for school districts (Lyons, 1989, 1991). The benefits indicated of the training model fall further than identifying cost-effectiveness. Pinnell, Lyons, DeFord, Byrk, and Seltzer (1994) studied the guidelines, design and results of four early intervention programs indicated that one of the key explanations of the success of Reading Recovery[TM], in comparison to other programs evaluated, was the intensive training of teacher leaders and Reading Recovery[TM] teachers,

consistency of program objectives and "continuing contact" after the initial year of training.

Rinehart and Myrick (1991) conducted a study of Reading Recovery[TM] teachers to determine views of empowerment of teacher leaders, work design and core technology. Each participant was required to complete a questionnaire consisting of 9 open-ended questions and 29 questions that assessed their role in relation to levels of involvement in Reading Recovery[TM], such as budgeting, curriculum, teacher evaluation, scheduling, student discipline and teacher discipline. The main conclusion derived from the study is that, with consistent and continuous support, Reading Recovery[TM] teachers exhibited several trends in their responses. As individuals, they revealed that they had a unique set of skills and powerful knowledge base in the area of literacy instruction maintaining a certain level of professionalism. Of the Reading Recovery[TM] teachers surveyed, 95.1% rated their training as excellent for specific reading strategies and 87.8% rated their training in diagnostic evaluation and observation also as excellent. In addition, 92.7% of the teachers participating gave their understanding of theoretical knowledge an excellent rating as a continuous part of training. Participants revealed that they felt greatly empowered to complete the program through the assistance of teacher leaders. Overall, participants felt they were given the autonomy, and responsibility to make decisions on behalf of their school and their individual students. In relation to the support they felt from superiors regarding their decision-making skills, 86% of

participants reported that they felt supported in their decisions. All factors considered appeared to have "carry over" effects into the feeling of respect and increased self-esteem of the participants in relations with other staff members. Participants reported they were identified as professionals in the school and 97.5% revealed that as Reading Recovery[TM] teachers they "were consulted, on a regular basis, by classroom teachers who wanted to learn, for their own use , about the teaching strategies used in the Reading Recovery[TM] program." (Rinehart & Myrick, 1991). Thus, based on the results outlined, the Reading Recovery[TM] training model may appear intensive and costly. However, through a consistent training regime and continued support, the benefit to a school district is identified not only in the effectiveness as a literacy program, but also as a training model. This model of professional training evolves respect and empowers Reading Recovery[TM] teachers and school staff by providing theoretical knowledge to maintain the professional integrity of the program.

Implications for Special Education

Children who have difficulty learning to read do less well in other subject areas, have lower self esteem, pose greater discipline problems in school and are less likely to complete a high school education (Shanahan & Barr, 1995). Within the 1995 publication, *Learning Disabilities- A Barrier to Literacy Instruction*, the authors identify grave concerns of the increasing number of children identified with

learning disabilities in the United States (International Reading Association, 1995). Statistics revealed that over half of the children identified with special needs have been given the learning disability exceptionality to explain low achievement. This figure has more than doubled in the last ten years and as a result, the need for special education services greatly increases (International Reading Association, 1995).

The question arises about whether the children in need are truly learning disabled, or are they labelled learning disabled later in their school career as a result of lack of appropriate reading instruction at an earlier age (Clay, 1987; Lyons, 1989, 1991; Pedron, 1996; & Shanahan & Barr, 1995). The International Reading Association (1995) stated that the definition of learning disabled has evolved to characterize a student exhibiting poor achievement in core academic subjects in relation to ability. Stanovich (1991) alleged that varying definitions of learning disabilities serve a multitude of purposes, thus conflicting with each other depending on the intent. It has been proposed that special education may achieve the reform needed if requirements for students qualifying for services be reevaluated and a defintion devised to include preventative measures early within the general education system (Kauffman, 1993). Reading Recovery™, although not a learning disability program, offers significant implications for students with identified learning disabilities, as it is designed to serve the lowest 10-20% of first grade students early in their school careers independent of cause, characteristics, labels, language or cultural heritage (Lyons, 1991, Pedron, 1996). Having access to Reading

Recovery™ early should eliminate students who may have required remedial intervention and later labelled as learning disabled, thus, essentially differentiating from those students with severe neurological deficits requiring specialist attention versus students requiring short term intervention (Clay, 1987).

The impact of Reading Recovery™ on special education has been researched in a five-year longitudinal study in Ohio State. Lyons and Beaver (1994) investigated the reduction of learning disability placements through school districts that had full implementation of Reading Recovery™. Two school districts were used to gather information regarding the effects of Reading Recovery™ on the number of first grade students classified as learning disabled. Both districts documented a significant reduction in learning disabled classifications, with one district reporting a reduction of two-thirds after full implementation. Lyons (1994) further conducted a national study to examine the rate of referring grade 1 students in general to special services in suspect of a possible learning disability. Data was gathered prior to and after one to two years of initial implementation of Reading Recovery™ in each school district. Results indicated 10 –15% of first grade students in the study received Reading Recovery™ as an early intervention program, which is consistent with the literature relating to the Reading Recovery™ program. The rate of referrals for students to services for learning disabilities decreased from 2.3% prior to implementation of the Reading Recovery™ program to 1.3% two years after implementation (Lyons, 1994). It is significant to note that the percentage of first

graders receiving Reading Recovery™ was consistent with the program guidelines yet referrals to special services decreased for learning disabled students.

Without debating and questioning definitions of learning disabled, there are several issues that need to be addressed in terms of special education services. Firstly, what distinctions are present to identify a learning disabled child versus a garden variety under achiever at the grade 1 level? Secondly, as contended by Pedron,(1996), what are the distinctions in the programming of reading instruction for the learning disabled child versus a "garden variety under achiever?" Clay (1987) believed that programs must be provided that work for both low achieving children and learning disabled children. Clay (1987) further contended that children who are behind in reading and writing continue to fall further behind because they initially build a system of responses that does not work efficiently for them. The longer children remain in an "inappropriate program", the more they internalize ineffective behaviours.

A study conducted by Lyons (1989) indicated that there are differences in error behaviours of Reading Recovery™ students who were classified as learning disabled, compared to those Reading Recovery™ students not labelled as learning disabled. An analysis of error- behaviours at the beginning of the implementation of the program identified that those students classified as learning disabled overly relied on visual/auditory information and ignored supportive language structure and meaning of the predictable texts. Students not diagnosed as learning disabled

integrated the meaning and language structure when reading, but ignored the visual/auditory information. As they progressed through the program the two groups became more alike in their use of multiple cuing systems. The conclusion was that those classified as learning disabled responded as well to techniques of Reading Recovery™ as do other low progress readers.

It is believed by many educators that before any meaningful reading can occur; the alphabet and letter/sound relationships commonly called pre-readiness skills must be achieved before words can be introduced (Clay, 1987; Lyons, 1989, 1991; Pedron, 1996). As with the study designed by Lyons (1989), it is believed that the differences in error behaviors lies with the initial reading instruction each group received, and how each group attempted to learn to read. Since many beginning reading programs emphasize phonics, the problem may be that what "learning disabled" children learn they learn, too well (Lyons, 1989). Therefore, it is suggested that instruction follow the child's lead, in what they need at the time rather than a step-by-step structure restricting insignificant learning (Clay, 1987; Lyons, 1989, 1991).

Reading Recovery™ and the Self-concept

The self-concept is identified as "the extent which people perceive themselves as being valued by significant others" (Joseph, 1979). The results of reading and writing difficulties have been identified as having a detrimental effect on

a student's self-concept and self esteem (Rumbaugh & Brown, 2000; Shanahan & Barr, 1995). Proponents of Reading Recovery[TM] (Clay, 1993b; Pinnell et al., 1994) contend that one of the positive implications of receiving Reading Recovery[TM] as an early intervention program is the "snowball effect" it entails. Students of Reading Recovery[TM], not only learn to read and write and maintain these gains overtime, but, the positive interaction and satisfaction of reading and writing comparable to their "average-achieving" peers, also assist in developing an improved self-concept. Cohen, McDonell, and Osborn (1989) examined 138 first grade students in Washington, D.C. Using an attribution scale and a self-efficiency scale, researchers surveyed both Reading Recovery[TM] students and other "at-risk" students in traditional remedial programs. Research suggested that students in Reading Recovery[TM] believed that they were more capable of completing challenging reading and writing activities than their "at-risk" peers in traditional remedial programs. Reading Recovery[TM] students, not only believed that they were competent readers and writers, but they also believed they were in control of their own learning and exhibited increased confidence. This research suggests that Reading Recovery[TM] intervention enables students to reverse the cycle of defeatism and creates successful learning, thus, leading to increases in self-esteem.

Traynelis-Yurek and Hansell (1993) further examined Reading Recovery[TM] on self-concept. Their investigation followed 173 first grade students representing various backgrounds from urban, suburban and rural schools in Ohio and Virginia.

Upon completion of Reading Recovery™ participants completed a questionnaire that measured how they felt about their reading abilities and the perceptions of others about their reading skills. Research indicated that, out of 173 participants, 144 of them responded "yes" when asked, if their classroom teacher thought they were reading better, 153 felt they themselves read better and 166 thought their Reading Recovery™ teacher felt they were reading better after Reading Recovery™. This further supported an increase in self-esteem and the development of a positive self-concept.

Rumbaugh and Brown (2000) conducted research on the development of first grade student's self-concept after Reading Recovery™ intervention. The 103 participants were divided into two groups. A Treatment Group was comprised of 57 Reading Recovery™ students that received 12 weeks of intervention and the second group referred to as a Control Group, consisted of 46 students who received no other reading instruction or intervention for the 12 week period. Both pre-test and post-test measures were utilized using the *Joseph Pre-school and Primary Self-concept Screening Test (JPPSST)*. Results concluded that as a result of Reading Recovery™ participation, each student made significantly positive gains in the Global Self-Concept, which supports feelings of personal worth and how significant others perceive them. There was however, no evidence of a significant increase in self-perception of the ability "to successfully perform and master environmental demands" after Reading Recovery™ intervention compared to the control group. It

is suggested that the praise and specific prompts by Reading Recovery[TM] teachers coupled with attitudes of school administrators, teachers and parents assist in the development of a global positive self-concept for six-year-old students.

Moore and Wade (1993) further studied the attitudes of Reading Recovery[TM] on the school environment and attitudes toward Reading Recovery[TM] by school administrators, teachers, parents and students. It was suggested that Reading Recovery[TM] implementation overall had a positive effect on the school environment leading to gains in parental involvement, more prominence of reading in homes and increased confidence by the participants regarding their reading abilities. Ultimately, at 6-years of age, how we feel about ourselves is influenced by environmental experiences, thus it is essential to gain support from all involved to develop positive self-concepts at an early age.

Future Trends in Literacy Education

According to Allington (2001), the best approach of addressing the needs of struggling readers and writers lies in a comprehensive and sustained intervention plan, beginning at kindergarten and following a student through the intermediate grades. This may be achieved through improving classroom instruction and enhancing access to intensive and continued professional development. Effective teaching requires the support of good professional development program for teachers. *First Steps*, a professional development program sponsored by the

Department of Education for primary teachers in Newfoundland and Labrador,

supports improvement in instruction for reading, writing and oral language. (Rees,

1994). Implications of research suggest that schools involved in designing "teams,

clusters, committees and task forces of teachers" to help in the decisions of the how

and what of their school ultimately are more effective in the development of quality

instruction and meeting the needs of "at-risk" students (Allington, 2001).

Reading Recovery[TM] incorporates an effective means of identifying students

"at-risk" for reading and writing difficulties and providing individualized instruction

to meet the unique needs of students in grade 1. The program's success is attributed

to its continued professional development and the organization of literacy teams

within schools and school districts (Pinnell et al., 1994). However, Reading

Recovery[TM] is a short-term intervention and one criticism is the lack of support for

the long-term effectiveness of the program (Canning, 1996; Center, Wheldall, &

Freeman, 1992; Shanahan and Barr, 1995; Wasik & Slavin, 1993). The question

arises as what happens to students after intervention. It is suggested that there is "no

quick fix" to reading and writing difficulties and Reading Recovery[TM] proponents do

not claim that this will occur. Ensuring effective classroom teaching is the key to

maintaining gains and continued success especially in later grades (Clay, 1993b).

Primary teaching methods and materials tend to follow along similar

guidelines until grade 4. Chall (1983) identified the notorious "fourth-grade hump".

The transition from grade 3 to grade 4 appears to be challenging for students

attributed to increased expectations for independence, growing use of informational texts and topics in which students have little prior knowledge to build upon. Others suggest that in light of the change in style of teaching from building of skills to informational teaching, students are encountering "big words" that present difficulty in decoding and understanding, thus, exhibiting little growth in reading proficiency (Cunningham & Allington, 1999). Allington (2001) suggested that there will always be students who will need continued support instruction beyond early intervention programs. It is the early intervention programs that enable students to progress but individuals must acknowledge that there is "no quick fix" and students still need to be taught (Pinnell, 2000). Effective literacy education focuses on continued professional development and support for teachers from kindergarten to grade 12 need to be addressed. Access to appropriate texts such as narrative and informational resources is of importance in emphasizing content variety and a wide range reading levels to meet student needs. Providing topics of particular interest to students will not only encourage learning in school but also "enhance the likelihood of reading outside of school" and encourage reading for interest as a lifelong endeavour (Allington, 2001).

CHAPTER 3

Methodology

Introduction

Criticisms of research conducted on the effectiveness and implementation of the Reading Recovery [TM] program is in relation to researcher bias and flawed data (Center, Wheldall, & Freeman, 1992; Shanahan & Barr, 1995; Wasik & Slavin, 1993). The research conducted by Marie Clay and other researchers of the program has been identified as relying solely on diagnostic measures that are currently aligned with the specific strategies used in the teaching and in the evaluation of students in the Reading Recovery [TM] Program, thus supporting a bias in favor of Reading Recovery [TM] (Center, Wheldall, & Freeman, 1992; Wasik & Slavin, 1993). Shanahan and Barr (1995) further emphasize the flaws associated with the in-house evaluation system of Reading Recovery [TM], reporting that persons responsible for success of the program only collect data on success and omit about half the data from their final analysis in support of Reading Recovery [TM]. Further methodological shortcomings included non-random assignment of experimental and control groups, decreasing sample size during research and inconsistencies in the execution of discontinuation criterion among the Reading Recovery [TM] sites participating in the studies (Anderson, 1988).

Documentation of studies by Anderson (1988); Gregory, Earl, and O'Donoghue (1993); and Gregory and Earl (1994), whose methods included instruments such as *Woodcock Reading Mastery Tests*, and *Metropolitan Achievement Tests*, represent research methods independent of diagnostic surveys required in the Reading Recovery ™ evaluation guidelines. Based on previous methodological concerns, the researcher has also chosen methods that are independent of Reading Recovery ™ procedures in teaching and in the evaluation of students.

Subjects

The population studied consisted of both male and female students, which include a diverse array of the cultural backgrounds in Labrador. All 36 participants were followed from age 6, depending on each child's date of birth, to 9 years of age. The majority were represented from the white population of Labrador and the Inuit culture, who represented 41.6 % and 27.8 % of the participants respectively. The settler population, whose ancestors settled in Labrador from Europe in the 19th and 20th century, included 11.1% of participants, as did the representation from the Innu Nation. The remaining 7.6% of participants are recognized as members of two or more of the afore mentioned cultural heritages (Table 3). Due to random selection, the British and German populations in Happy Valley-Goose Bay area were not represented in the study, although they are represented in the Reading Recovery ™

program in Labrador schools.

The sample is representative of the population serviced by the Reading Recovery™ program and further indicates the varied experiential backgrounds and knowledge that students have upon entering school, as well as the theoretical perspective that Reading Recovery™ is for all students.

Table 3

Background Cultural Information of Participants

Participants n=36	White	Inuit	Settler	Innu	White/ Settler	Settler/ Inuit	Inuit/ Innu
Treatment Group (R.R.)	4	4	1	0	2	0	1
Reference Group	6	4	2	1	2	1	0
Comparison Group	5	2	1	0	0	0	0
Total	15	10	4	1	4	1	1
Percentage	41.6%	27.8%	11.1%	2.8%	11.1%	2.8%	2.8%

Basis of Selection

Participants for this study were selected randomly from six schools with Reading Recovery™ implemented by fully trained Reading Recovery™ teachers. Parental consent forms were distributed in September 1998 to the parents/guardians of all research candidates. Where parental support was not obtained, students were

withdrawn from the pool of research candidates. Each participant must have been a 6-year old grade 1 student and be eligible to receive Reading Recovery™ in the 1997-98 school year.

To address the study objectives, three conditions were employed. The study included three groups of participants based on the child's status in relation to their need for Reading Recovery™ in grade 1. The Treatment Group included 12 discontinued Reading Recovery™ students who were selected randomly from 58 possible participants from all schools in the school district who met the research criteria and had achieved the goals of the program in the 1997-98 school year. The participants involved in this group did not include "carry-over students" from the previous year. It was also required that the Reading Recovery™ teacher be a certified Reading Recovery™ teacher. The Reference Group consisted of 12 participants randomly selected from a possible 116 students from the same classrooms as those children in the Treatment Group; however, the children in this group included those who did not need Reading Recovery™. The Comparison Group, from the same classrooms of children, 12 participants randomly selected from 19 students of who needed Reading Recovery™, but were unable to receive this support because of lack of teacher resources, limited space in the program, or age requirements. All three groups contained an equal number of participants for the duration of the study.

Test and Measurement Procedures

The first research question required a longitudinal study to confirm the theory that discontinued Reading Recovery™ students would develop as effective readers and writers compared to the class average of their grade-level peers. A comparison of the Treatment Group, the Reference Group and the Comparison Group would identify the long-term effectiveness of the Reading Recovery ™ program of the children studied. Samples of participant's academic development were followed over a period of two years. At the beginning and end of each school year, each child's reading and writing levels were identified though the use of multiple procedures, such as *Diagnostic Reading Inventory:* graded-reading passages/ running records, *Diagnostic Reading Inventory:* reading comprehension, *Burt Word Reading Test, Gentry Spelling Assessment,* and Fluency Rating. The results would indicate whether the Treatment Group had maintained reading and writing levels comparable to the participants in the Reference Group and the Comparison Group over a two-year period.

The retelling strategy and an analysis of sources of information (meaning, visual and structural) were initially proposed but proved unreliable and invalid, thus, these two measures were discontinued. The procedures used to determine reading and writing levels are described below:

Student Record Forms

The researcher devised two Student Record Forms: the Student Record Form for Reading Recovery[TM] Students, and the Student Record Form for All Participants. The Student Record Form for All Participants was designed to obtain demographic data (i.e., cultural background, age, and behavior), classroom program data (i.e., time on task, type of classroom program, duration of program elements), and outcome data such as ratings of student performance. The Student Record Form for Reading Recovery[TM] Students provides a summary of details such as number of lessons, initial and discontinued book levels and evaluation scores.

Diagnostic Reading Inventory: Graded-reading Passages

Throughout schooling reading progress is indicated by satisfactory reading of increasingly difficult texts. _Diagnostic Reading Inventory_ is a Canadian publication distributed by the Alberta Education, Student Evaluation Branch (1986). It consists of 48 illustrated reading passages grouped into four forms. The passages are designated Forms A, B, C or D consist of 12 passages for each form, from mid grade 1 to grade six. The _Diagnostic Reading Inventory_ (Alberta Education, Student Evaluation Branch, 1986) provides narrative passages for all grade levels and both narrative and informational passages for assessing reading levels equivalent to grade 4 to grade 6. The narrative passages are fictional and informational passages present factual information. The informational passages use more complex language related

to information giving, thus, at each grade level, the informational passages are used as the end of the grade assessment for graded levels four to six due to the type of passage presented and the unfamiliar genre to the participants.

Initially, with the use of informal reading passages contained in the *Diagnostic Reading Inventory*, the participant's instructional reading level was determined. The inventory identifies passages at different stages within a grade level. For example, there are passages for beginning grade 2 and at the end of grade 2.

A running record was conducted on the each reading sample. The "Running Record" is an assessment tool that enables the examiner to evaluate a child's progress and to make individualized instructional decisions. According to Clay (1993a, 2000a), there is closer measure more valid of a child's oral reading than observing a child reading and observing processing behaviors. The method is similar to a miscue analysis in that the examiner records the child's reading behaviors such as omissions, insertions, rereading, self-correction, repeated errors, and inventions used in calculation of the error rate.

An independent level was first established as a base line and reading passages were continued until a frustration level was determined. The highest instructional reading level was identified as the reading level of the participant. A description of each reading level and the criteria used in the Reading Recovery ™ Program to determine each level are as follows (Clay, 1993a):

1. Independent Level: Material at this level is easy and read with little difficulty. Accuracy Rate is 95 percent or better.

2. Instructional Level: Material at this level is read comfortably and it is the level in which learning can occur effectively from print. Accuracy rate between 90 percent and 95 percent accuracy.

3. Frustration Level: The student is unable to benefit from material at this level. Errors take control of the reading and in turn become laborious. Accuracy rate is below 90 percent at this level.

Normally, text reading would be best selected from readily available reading material used within the classroom library. However, due to the nature of the study and the goal to determine reading level beyond the participant's grade placement, an informal reading inventory was chosen. The choice of an informal reading inventory also fulfills another goal of the study, which is to provide reading material that is fair to the participants and a reliable and valid measure. The majority of the children in the study were of Inuit culture in isolated communities. Experiential background and language barriers were concerns in interpreting the results of standardized testing norms. Thus, grade-equivalent measures were utilized.

Diagnostic Reading Inventory: **Reading Comprehension**

Each graded level reading passage in the *Diagnostic Reading Inventory* contained comprehension questions appropriate for each grade level (Alberta

Education, Student Evaluation Branch, 1986). The reading comprehension scores were determined from the graded passages as being independent, instructional or frustration levels, based on the details given and number of correct responses. A significant part of reading that is often ignored is the child's ability to gain meaning from the text. The development of meaning is an integral part of the Reading Recovery™ program that must be assessed, and comprehension is an indication of this.

Instructional reading comprehension levels were identified in comparison to the participant's instructional reading level. This was to determine achievement and discrepancies in each participant's actual reading ability in comparison to the participant's comprehension of material read at an instructional level. In conjunction with the analysis of individual scores and a group's mean of reading comprehension, a statistical analysis was conducted to determine if a significant difference existed between the groups' means.

Burt Word Reading Test

The *Burt Word Reading Test* (Gilmore, Croft, & Reid, 1981) is an individually administered measure analyzing a child's word recognition skills. Burt originally designed this word recognition assessment for use in Scotland (Gilmore et al., 1981). The test card consists of 110 words printed in type of differing sizes and presented in order of difficulty. The child is asked to read as many words from the

test card and continues until ten consecutive errors are observed. *The Burt Word Test* has been standardized based on the results of approximately 700 New Zealand children. Age norms are provided for children from ages 6 years to 12 years 11 months. Thus, this assessment procedure has been used among different cultural backgrounds.

The Burt Word Reading Test (Gilmore et al., 1981) is also used in the Reading Recovery™ Program's *Observational Survey* (Clay, 1993a) and for the re-evaluation of children in the Reading Recovery™ Program. This assessment tool used in conjunction with other data about each child can help teachers make a more concise and accurate evaluation of a child's reading achievement. Not only can an age-equivalent be used to determine levels of word recognition, it can also identify trends in word attack skills, pronunciation errors and how children approach unknown print in isolation. The Burt Word Reading Test was administered to all children in the study and a comparison of the number of errors, and age-equivalent bands was evaluated for a two-year period to determine growth individually and in comparison to the three study groups.

Gentry Spelling Assessment

The writing component consisted of a spelling test based on the Gentry Spelling Assessment Test. This test involves ten dictated words in which the child is asked to write each word. The child's spelling attempts were categorized in one of

six classifications (Gentry, 1985):

- No attempt: Score= 0

- Precommunicative: Identified as the "babbling" stage with a random use of letters that does not correspond to sounds when writing words. Example: OPSPS= eagle or BLDGE= eighty. *Score= 1.*

- Semi- Phonetic: Recognition that letters represent sounds is characteristic at this stage. Spelling attempts are often written in an abbreviated form using "initial/and or final sounds" (Gentry, 1985). Example: E= eagle or a=eighty. *Score = 2.*

- Phonetic: Words at this stage are spelled like they sound. All phonemes are represented in attempts although unconventional in nature. Example: EGL=eagle or ATE=eighty. *Score =3.*

- Transitional: Transitions are made from phonetics to thinking about visual patterns in words. These may "exhibit conventions of English orthography" (Gentry, 1985) such as vowel digraph patterns, frequently used letter sequences, silent e, use of vowels in every syllable. *Score = 4*

- Correct: Correct spelling. *Score = 5.*

Fluency Rating

A rating of 1 to 3 was given for fluency by the researcher. The rating of overall fluency represents the participant's oral reading skills on instructional passages. Characteristics of good oral reading include phrasing, expression, and smooth reading comparable to "talking". Ratings are as follows (Gregory et al., 1993):

Rating 1: Poor fluency or staccato reading.

Rating 2: Good/fair fluency

Rating 3: Excellent fluency/ Very Fluent

All activities were taped by the tester for review by the researcher.

Retelling Strategy

Initially, a retelling of the story read orally at the child's instructional level was also scheduled to be conducted as part of the assessment procedures. The purpose of this assessment was to enable the researcher to determine the level of comprehension from the story read and the skills being demonstrated. It is very common for a child to read fluently but not understand the story in general. The details, main idea, and higher level thinking skills (i.e., synthesizing and inferring) were examined in the retelling of the passage that was determined to be at the child's instructional level. A rating of 1 (i.e., minimal in detail) to a rating of 3 (i.e., rich in detail) was identified, as well as the administration of the retelling response record

form, which identifies the use of comprehension skills. All retelling was tape recorded for use by the researcher.

As explained in Chapter 1, this procedure was omitted after consultation with the testers responsible for administration of procedures. The results obtained for the retelling did not appear to be an accurate representation of the information the students actually gained during the reading of the passage. Participants in each group were better able to answer comprehension questions presented, therefore, a concern was expressed that in a novel situation cultural factors such as shyness and lack of experience with expression of thoughts were interfering with the results.

Comprehensive Description of Reading Recovery™ in Labrador

Finally, through the use of interviews and questionnaires, teachers, administrators and Reading Recovery™ teachers were objectively analyzed by the use of their own words and ratings. In order to look comprehensively at Reading Recovery™ in Labrador pertaining to cultural aspects, these individual experiences and views warranted exploration as documentation of its success or its limitations. All data were analyzed using percentages of responses and characteristics. A document analysis of year end school reports and questionnaires was conducted to determine the number of children entering the program and children discontinued, as well as, students carried over, and those requiring referrals for additional supports other than Reading Recovery™. A comparison of these statistics can provide

insight into the development of the program since its implementation, and support or refute its continuance in the school system.

Procedure

Permission was obtained from the Ethics Review Committee of Memorial University of Newfoundland (Appendix A). School and school board permission was given for the development of a longitudinal study and participation of Reading Recovery[TM] in the implementation of this study (Appendix A). A letter explaining the purpose and intent of this study was also sent to parents along with a letter of permission to include their child as a participant in a two–year longitudinal study.

During the period of November 1998 to June 2000, information was gathered to compile a comprehensive report of Reading Recovery[TM] in Labrador, including the implementation of the Reading Recovery[TM] program to the completion of the proposed study. Labrador exhibits a unique situation with its students in the program being predominantly of the Inuit culture. Certain children of the north are faced with poor experiential backgrounds due to isolation, not to mention other factors such as poor language development before starting school and lack of educational supports in the home. These factors all interfere with the development of language (Clay, 1996). Thus, Reading Recovery[TM] will not alleviate these concerns, but will be identified as a contributing factor to "taking diverse individuals by different routes to

full participation in the mainstream of their classroom activities" (Clay, 1996). It is for this reason that the basis of selection was random to ensure that all of Labrador's school population had an opportunity to be included.

The goal of this study was to identify that through Reading Recovery[TM], whether the Treatment Group (students discontinued from this early intervention) is able to develop a "self-extending system" that enables them to maintain stable gains in reading and writing when compared to a Reference Group (participants who did not require the Reading Recovery[TM] as an intervention) and the Comparison Group (participants who were unable to access the program). All participants in this study were grade 2 students who had not repeated a grade. Thus, all participants were the same age and the identifying factor between groups was the participants' assessed need of reading intervention in grade 1. Based on the assessment, teachers identified each participant as a discontinued Reading Recovery[TM] student (Treatment Group), as needing Reading Recovery[TM] but unable to access the program (Comparison Group) or progressing at average rates for their grade level (Reference Group).

Planning Each Testing Trial

Testing trials began in the fall 1998 and continued twice a year, in the fall and spring, until the spring of 2000. The researcher was able to participate in testing trials in Hopedale and Happy Valley– Goose Bay. Reading Recovery[TM] teachers in Nain, Cartwright, North West River, and Happy-Valley–Goose Bay agreed to

complete the Running Records, Reading Comprehension, Spelling Assessment and *Burt Word Reading Test* for each testing trial. All Reading Recovery™ teachers are trained in administration of Running Records and *Burt Word Reading Test*. The researcher provided training sessions and detailed procedures in each package. The researcher analyzed and scored all materials on each participant for reliability and validity purposes. The Labrador School Board was supportive of the researcher's efforts and allowed time to complete testing at St. Michael's School and Peacock Elementary in Happy Valley– Goose Bay. Also, the researcher was provided with sufficient time at "continuing contact sessions" to discuss the study and to obtain progress from each Reading Recovery™ teacher.

Research Design

The goal of the study was to determine whether Reading Recovery™ students maintained long-term gains compared with their "average-achieving" classmates and "at-risk" peers who were unable to access Reading Recovery™. The design presented is a longitudinal study in which three study groups were examined over a two-year period. Two independent variables are identified. The first is the treatment condition, which is represented by three groups. The first group included 12 discontinued Reading Recovery™ students in the school district who had achieved the goals of the program in the 1997-98 school year. This group received Reading Recovery™ as an intervention and was successfully discontinued. The Reference

Group consisted of participants from the same classrooms as those children in the study group; however, the children in this group acted as a reference to the Treatment Group representing children achieving at average levels and including children who did not need Reading Recovery™. The Comparison Group, also taken from the same cohort of children served as a comparison to the other two groups, representing those students who needed Reading Recovery™ but were unable to receive the program because of lack of teacher resources, or being repeaters. All three groups contained an equal number of participants for the duration of the study. This factor will hereafter be identified as Group in the analysis.

  The second independent variable is Time. Each participant was tested in the fall and spring of each year for a two-year period, thus identifying four testing trials in which each participant's achievement was assessed. Descriptive statistics were obtained to assess achievement levels on all five dependent variables: *Diagnostic Reading Inventory:* Reading Passages, *Diagnostic Reading Inventory:* Reading Comprehension, *Burt Word Reading Test*, *Gentry Spelling Assessment*, and Fluency Rating.

  The data from the tests and measurement procedures are presented and discussed in Chapter 4. Baseline scores were determined in the fall of 1998 to determine achievement in reading levels, reading comprehension, word recognition, spelling achievement levels, and fluency. These results served as a comparison for the subsequent assessment data. Comparison of the "grade-equivalent" and "age-

equivalent" scores on pre-test and subsequent post-tests was used to monitor and measure significant gains made by individual participants over the course of the study. In the case of the fluency and spelling assessment, an overall rating was determined based on performance indicators. Individual scores on each procedure were compiled to represent each group's mean. All data has been outlined in detail in tables and figures throughout the sections where relevant discussion occurs.

A repeated-measures factorial design using an analysis of variance procedure was chosen for the analysis of data. The use of this method for analyzing data enables researchers to compare the means of two or more populations or treatments and this can be accomplished with greater flexibility and interpretation of results. An analysis of variance allows more than one independent variable to be analyzed in a research study, while repeated-measures designs measures the same characteristic over time while reducing error variance. The null hypothesis would be written like this H_0: $\mu_1 = \mu_2 = \mu_3$, indicating no difference between the means of the population represented by the sample groups (Gravetter & Wallnau, 1995).

A repeated-measures research design enables examination both between-group and within-group differences. Between-group effects may be explained as a treatment effect, individual differences, or experimental error. The repeated-measures analysis allows the researcher to determine if the pattern in means or changes in means over the four testing trials differ for the three study groups.

CHAPTER 4

Analysis of Data

Introduction

As described in Chapter 3, two independent variables are identified in the research design: GROUP (Treatment Group, Reference Group and Comparison Group) and TIME (four testing trials). Each participant was randomly selected from each one of the three groups based on their status in receiving Reading Recovery™ intervention. The Treatment Group contained participants who received Reading Recovery™ and were successfully discontinued from the program. The Reference Group contained participants who did not require Reading Recovery™ as an intervention, thus were functioning at average or above average levels at the time the treatment was decided. The Comparison Group comprised students from the same cohort who were among the lowest achieving students in grade 1 when the treatment was administered and met the criteria for receiving Reading Recovery™, but were unable to access the program due to external factors such as lack of space, and qualified teachers.

Descriptive statistics were computed at each of the four testing trials for all five dependent variables: *Diagnostic Reading Inventory*: Graded Reading Levels, *Diagnostic Reading Inventory*: Graded Reading Comprehension, *Burt Word Reading Test*, *Gentry Spelling Assessment*, and Fluency Rating. A repeated measures

ANOVA with $\alpha = .05$ was used to determine if there were effects due to GROUP and TIME or their interaction. Tukey's HSD was used to make pairwise post hoc comparisons to determine the groups affected by treatments where significant mean differences occurred (Ramsey, 1993).

Results

Analysis of *Diagnostic Reading Inventory* Graded Reading Levels

Descriptive statistics for all three groups suggested positive gains in reading levels as all three groups' means increased over time (see Figure 1). There was a significant interaction effect of GROUP and TIME, which indicates that the patterns of reading performance for groups differed significantly over the two-year testing period ($F = 3.36$, $p = .005$).

Table 4

Repeated Measures Analysis of Variance of *Diagnostic Reading Inventory* Groups' Mean Graded Reading Levels

Source	Sum of Squares	df	Mean Squares	F	p
TIME	61.933	3	20.644	37.218	.000
TIME*GROUP	11.103	6	1.851	3.336	.005
Error (TIME)	54.914	99	0.555		
GROUP	207.512	2	103.756	15.327	.000
Error (GROUP)	223.396	33	6.77		

Figure 1

Diagnostic Reading Inventory Groups' Mean Reading Levels For All Testing Trials

	Fall 1998	Spring 1999	Fall 1999	Spring 2000
Treatment Group	3.6	4.6	5.6	6.3
Reference Group	4.5	5.4	5.9	6.2
Comparison Group	2.3	2.6	2.8	3.3
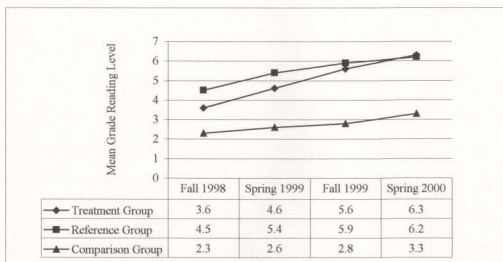
Simple main effects tests indicated that there was no significant difference in the reading levels and rate of progress between the Treatment Group and the Reference Group on any of the four testing trials. However, the Comparison Group differed significantly from both the Treatment Group and the Reference Group for each of the four testing trials. Results indicated that students who have received Reading Recovery™ as an early intervention program have progressed comparably to their peers progressing at "average" rates (Reference Group), but demonstrated significantly higher reading progress than their "at-risk" peers (Comparison Group).

Post hoc results are contained in Table 10 of Appendix D (see also means in Figure 1).

Despite the fact that the Treatment Group and the Reference Group did not demonstrate a statistically significant difference in reading, analysis of Figure 1 shows that the Treatment Group maintained parallel gains with the Reference Group for the first year after Reading Recovery™ intervention. However, in the second year the Treatment Group appeared to narrow the gap to 0.3 of a grade level in reading achievement and surpassed the Reference Group in the spring 2000 testing trial. It is important to note that the children in the Treatment Group were functioning in the lowest 10%-20% of their classes, thus initial scores upon acceptance into Reading Recovery™ were lower than those of the Comparison Group. This supports the long-term positive gains of Reading Recovery™ as an early intervention program for "at-risk" students

Analysis of *Diagnostic Reading Inventory* Reading Comprehension Levels

Repeated measures analysis of variance was conducted on comprehension instructional levels determined by informal reading passages selected from the Informal Reading Inventory. Levels of reading comprehension can be determined independently of the participant's instructional reading levels. The sphericity assumption was not met based on Box's Test of Equality, thus, the Geisser-

Greenhouse procedure was used to determine statistically significant differences for tests including within-group effects (Keselman & Keselman, 1993, p.124).

Results indicated no interaction effect of GROUP and TIME on graded reading comprehension levels (see Table 5); thus indicating that there was no significant difference in the pattern of reading comprehension levels or rate of progress of all three groups over the four testing trials ($F = 1.779$, $p = .119$). There was a significant TIME effect within groups, indicating that all three groups changed comparably ($F = 32.459$, $p = .000$) and made significant reading comprehension gains over the two-year period (see Figure 2). Overall means for each testing trial from fall 1998 to spring 2000 were as follows: fall 1998 - 2.7; spring 1999 - 3.3; fall 1999 - 3.8; and spring 2000 - 4.3.

Table 5

Repeated Measures Analysis of Variance of Groups' Mean for *Diagnostic Reading Inventory* Graded Reading Comprehension Levels

Source	Sum of Squares	df	Mean Squares	F	p
TIME	53.779	2.745	19.595	32.459	.000
TIME*GROUP	5.895	5.489	1.074	1.779	.119
Error(TIME)	54.674	90.570	.604		
GROUP	35.415	2	117.708	19.703	.000
Error(GROUP)	197.146	33	5.974		

The GROUP effect was also significant ($F = 19.703$, $p = .000$). Tukey's HSD (Tukey's Honestly Significant Difference) was conducted analyzing multiple comparisons between the Treatment Group, Reference Group and the Comparison Group to determine which of the three groups differed in achievement on reading comprehension levels. Overall means for each study group collapsed over TIME are: Treatment Group - 4.8; Reference Group - 1.0; and Comparison Group - 1.8.

Figure 2

Groups' Mean Reading Comprehension Levels For All Testing Trial

	Fall 1998	Spring 1999	Fall 1999	Spring 2000
Treatment Group	3.6	4.5	5.2	5.9
Reference Group	3.1	3.9	4.2	4.8
Comparison Group	1.5	1.4	2	2.4

Results indicated no significant difference in achievement levels between the Treatment Group and Reference Group ($p = .117$). The Comparison Group was

significantly different from both the Treatment Group and Reference Group with $p =$ .000 for both between group comparisons. However, the Treatment Group demonstrated higher achievement scores than both the Reference Group and the Comparison Group in Reading Comprehension. Figure 2 provides a visual representation of reading comprehension levels with descriptive statistics for each testing trial.

Analysis of the _Burt Word Reading Test_

Raw scores from the _Burt Word Reading Test_ (1981) were analyzed (see Table 6) and results indicated a significant interaction effect, thus concluding that participants within the three groups progressed differently in word identification skills (F=2.983, p= .010).

Table 6

Repeated Measures Analysis of Variance of Groups' Mean for _Burt Word Reading Test_

Source	Sum of Squares	df	Mean Squares	F	p
TIME	5074.472	3	1691.491	76.195	.000
TIME*GROUP	397.278	6	66.213	2.983	.010
Error (TIME)	2197.750	99	22.199		
GROUP	6180.722	2	3090.361	3.998	.028
Error (GROUP)	25511.083	33	773.063		

Figure 3

Groups' Mean Results for the *Burt Word Reading Test* For All Testing Trials

	Fall 1998	Spring 1999	Fall 1999	Spring 2000
Treatment Group	41.08	46.58	51.67	59.5
Reference Group	44	48.08	55.67	63.25
Comparision Group	33.42	35.5	38.08	42
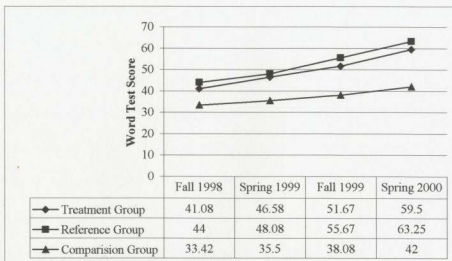
Post hoc tests were utilized to examine simple main effects over time within

the three groups assessed (see Table 11 in Appendix D). Analysis indicated that

there was no significant difference in the word recognition levels and rate of progress

between the Treatment Group and the Reference Group throughout the four testing

trials. The Comparison Group was significantly different from both the Treatment

Group and the Reference Group at specific times during the two-year period. During

the fall 1998 and the spring 1999, there was no significant difference between the

performance of the participants within Comparison Group and the performance

demonstrated by the participants within both the Treatment Group and the Reference

Group. However, in the beginning of the second year of testing, a significant difference in the rate of progress of the participants in the Reference Group emerged. The rate of progress assessed at the fall 1999 remained not significant between participants of the Comparison Group and the Treatment Group. The final testing trial (spring 2000) also exhibited a significant difference between the Comparison Group and the Reference Group; however, a significant difference was also identified between participants of the Comparison Group and the Treatment Group.

Results indicate that participants within the three groups all progressed during the two-year longitudinal study (TIME was significant, $F = 76.195$, $p = .000$) and demonstrated similar patterns of progress during the first two testing trials. The Reference Group participants, determined to be achieving at average rates and requiring no intervention in their schooling, appeared to make more significant gains in the fall 1999 and the spring 2000 testing trials. However, the Treatment Group, containing students who have received Reading Recovery[TM] as an early intervention, demonstrated a rate of progress comparable to participants in all four testing trials when compared to the Reference Group and in the first two testing trials when compared to the Comparison Group. The Treatment Group appeared to make more significant gains in the fall 1999 and the spring 2000 testing trials in which the pattern of progress in word recognition skills remained comparable to the Reference Group, but demonstrated a significant difference in the rate of progress with the Comparison Group, whose participants were unable to receive Reading Recovery[TM]

as an early intervention program. Thus, it was concluded that the Treatment Group continued to independently maintain current skills and make significant gains in word recognition over time.

Analysis of *Gentry Spelling Assessment*

As described in Chapter 3, the *Gentry Spelling Assessment* was administered to assess the written component of the testing procedures. Spelling attempts were assigned a numerical value according to the descriptive category in which the spelling attempt was more accurately represented (Gentry, 1985). Mean raw scores were then calculated to yield a Total Spelling Score for each testing trial per group and a repeated measures analysis of variance was conducted to examine both between group and within group differences.

Table 7

Repeated Measures Analysis of Variance of Groups' Mean Results of the *Gentry Spelling Assessment*

Source	Sum of Squares	df	Mean Squares	F	p
TIME	1133.500	2.159	525.045	32.975	.000
TIME*GROUP	13.125	4.318	3.040	.191	.951
Error (TIME)	1134.375	71.242	15.923		
GROUP	1873.597	2	936.799	5.435	.009
Error (GROUP)	5688.292	33	172.372		

On a preliminary analysis, the sphereity assumption was not met using Box's Test of Equality, thus the Geisser-Greenhouse approach was examined to determine statistical differences for tests within group effects. Results as shown in Table 7 indicate that an interaction effect was not significant for effects of TIME*GROUP, suggesting that participants of the three study groups were similar in their rate of progress ($F = .191$, $p = .951$). A significant TIME effect was identified confirming that all groups changed in spelling development over the four testing trials between fall 1998 and spring 2000 ($F = .32.975$, $p = .000$). The overall means for each testing trial from fall 1998 to spring 2000 were as follows: fall 1998: 3.4; spring 1999: 3.6; fall 1999: 3.8; and spring 2000: 4.1, indicating that all groups made significant gains.
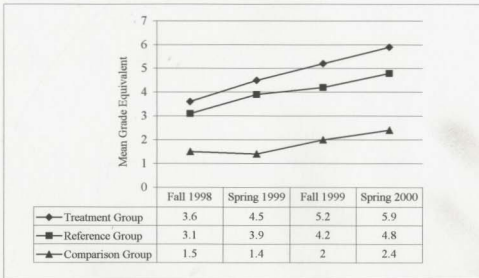
Although all participants within groups progressed at similar rates, the GROUP effect was significant indicating differences between groups studied ($F = 5.435$, $p = .009$). Tukey's HSD indicated that that there was no significant differences between the Treatment Group and the Reference Group, nor between the Reference Group and the Comparison Group. The difference between groups was between the Treatment Group and the Comparison Group. Analysis of Figure 4, further confirms that the Treatment Group scored higher on the spelling assessment than the other two study groups at all four testing trials. Overall means for each study group collapsing TIME are as follows: Treatment Group: 4.1; Reference Group: 3.8; and Comparison Group: 3.2.

Figure 4

Groups' Mean Results for *Gentry Spelling Results* For All Testing Trial

	Fall 1998	Spring 1999	Fall 1999	Spring 2000
—◆— Treatment Group	3.8	4	4.2	4.5
—■— Reference Group	3.5	3.6	3.9	4.2
—▲— Comparision Group	2.9	3	3.2	3.7
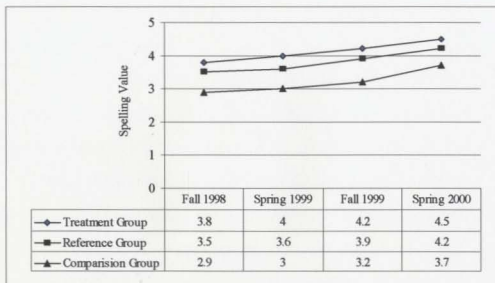
Conclusions regarding spelling development indicate that the participants who received Reading Recovery™ demonstrated higher scores than their average achieving peers and participants considered "at-risk" for reading and writing failure. Although the Treatment Group received higher scores in spelling achievement, their performance was comparable to the Reference Group. In comparison to students who needed Reading Recovery™ as an early intervention program (Comparison Group) the Treatment Group scored significantly higher; thus, suggesting that the participants who received Reading Recovery™ as an early intervention program,

maintained achievement in spelling development and continued to develop independently effective strategies to produce substantial and long lasting effects.

Analysis of Fluency Ratings

The overall fluency score represents the tester's rating of the participant's oral reading on the passage determined as their instructional level. Mean raw scores were analyzed using a repeated measures analysis of variance as shown in Table 8.

With sphericity assumed, there were no significant interaction effects indicating that all participants within the three groups demonstrated similar patterns of progress during the two-year longitudinal study ($F = .700$, $p = .650$). A significant TIME effect was noted, and since the means showed an increase from one testing trial to the next, this indicates that groups made positive gains in fluency performance from the initial testing trial in the fall 1998 to the final testing trial conducted in the spring 2000 ($F = 10.873$, $p = .000$). The overall means for each testing trial from fall 1998 to spring 2000 are as follows: fall 1998: 2.0; spring 1999: 2.2; fall 1999: 2.4; and spring 2000: 2.5 indicating that all groups made significant gains.

Table 8

Repeated Measures Analysis of Variance of Groups' Mean Fluency Rating

Source	Sum of Squares	df	Mean Squares	F	p
TIME	4.743	3	1.581	10.873	.000
TIME*GROUP	.611	6	.102	.700	.650
Error (TIME)	14.396	99	.145		
GROUP	24.500	2	12.250	15.437	.000
Error (GROUP)	36.187	33	.794		

Further analysis indicates a significant GROUP effect identifying differences between overall groups' performance in oral reading ($F = 15.437$, $p = .000$). Tukey's HSD confirms that there was a significant difference in fluency performance between the Comparison Group and both the Treatment Group and the Reference Group means respectively. No significant difference was indicated between the Treatment Group and the Reference Group's performance for all four testing trials. The mean Fluency Rating of the Treatment Group was higher than that of the Reference Group; however, the fluency performance of the Reference Group improved significantly in the fall 1999 and leveled in the spring 2000 to parallel that of the Treatment Group. Overall means for each group collapsed over TIME, as follows: Treatment Group: 2.7; Reference Group: 2.3; and Comparison Group: 1.7.

Figure 5

Repeated Measures Analysis of Variance of Groups' Mean Fluency Rating

	Fall 1998	Spring 1999	Fall 1999	Spring 2000
◆— Treatment Group	2.5	2.7	2.8	2.8
■— Reference Group	2.1	2.2	2.6	2.6
▲— Comparision Group	1.5	1.6	1.8	2
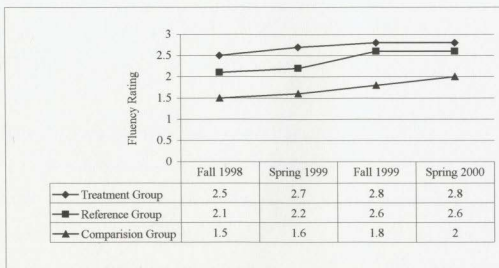
Based on these results, the Treatment Group maintained gains in fluency and oral reading as a result of Reading Recovery[TM] intervention. Further, the Treatment Group, appeared to perform at higher levels than the other two study groups at the initial testing thus, leaving less room for progress within the group over the two years. Despite that performance did not improve significantly with the Treatment Group, there was no significant difference in the overall fluency performance between the Treatment Group and the Reference Group. Therefore, Reading Recovery[TM] participants who had very little oral reading skills at the commencement of the early intervention program made comparable gains with their "average-

achieving" peers. When compared to their " at-risk" peers in the Comparison Group, the Treatment Group demonstrated substantially higher ratings in fluency performance, thus the Reading Recovery^{TM} intervention assisted in the development of fluency performance and a "self-extending system" to maintain oral reading skills over time.

Informal Analysis of Reading and Reading Comprehension Results

A repeated measures Multivariate Analysis of Variance of the Graded Reading Levels comparing the Graded Reading Comprehension Levels for each group was not included in the research design, thus it was not implemented. An informal analysis of the comparison of Graded Reading Levels and the Graded Reading Comprehension Levels was obtained (see Figure 6).

The Treatment Group appeared to achieve higher mean scores in reading comprehension comparable to their mean reading levels than did the Reference Group. The Reference Group demonstrated an overall gap in reading achievement that was approximately 1.5 grade levels higher than reading comprehension achievement. The Comparison Group also demonstrated an overall discrepancy in reading achievement and reading comprehension achievement of about one grade level. Individual group comparison figures of reading and reading comprehension results are identified in Figure 6.

The participants who received Reading Recovery[TM] as an early intervention program appeared to understand reading material comparable to their instructional reading levels (see Figure 6). However, comprehension instructional levels for each participant in the Reference Group and the Comparison Group were often determined not to be comparable to the participant's instructional reading level, as the level of text reading may have been more advanced than the participant's level of understanding.

Figure 6

Comparison Graphs of Reading Levels and Reading Comprehension Levels for all Groups

Figure 6, continued

Reference Group

Comparison Group
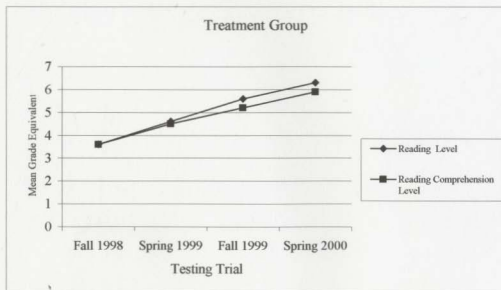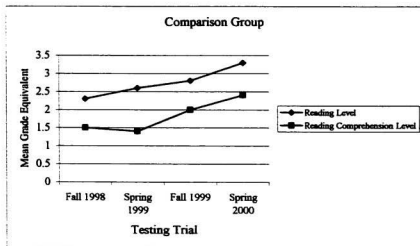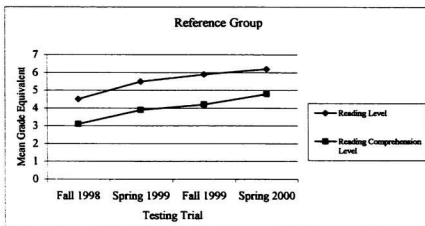
CHAPTER 5

Interpretation, Implications and Recommendations

Overview

The purpose of this research study was to determine the long-term effectiveness of Reading Recovery^{TM} as an early intervention program for " at-risk" students. It was believed that the effects of Reading Recovery^{TM} could be understood by comparing students over time in relation to their need for early intervention at the beginning of grade 1. Thus, participants were selected from groups based on their status of receiving Reading Recovery^{TM} as an early intervention program. Three groups were studied over a two-year period commencing in the fall 1998 and concluding in the spring 2000: a Treatment Group, students "at-risk" of reading and writing difficulties in grade 1 and who were successfully discontinued from Reading Recovery^{TM}; a Reference Group, students who were identified by their teachers to be achieving at "average" rates and requiring no further interventions outside of classroom teaching; and a Comparison Group, students considered "at-risk" for reading and writing difficulties but unable to receive Reading Recovery^{TM} due to lack of trained Reading Recovery^{TM} teachers in their school, retentions or were not 6-years old at the time of selection. In total, 36 students were examined and all students were retained for the duration of the study.

Testing began for participants in grade 2 after the treatment was determined to have been effective for the students who received Reading Recovery™. Dependent variables included *Diagnostic Reading Inventory: Graded Reading Levels*, *Diagnostic Reading Inventory: Graded Reading Comprehension*, *Burt Word Reading Test*, *Gentry Spelling Assessment*, and Fluency Rating. The research design consisted of a repeated measures analysis of variance to evaluate between-group effects and within-group effects over time.

Results suggest that the participants successfully discontinued from Reading Recovery™ (Treatment Group) demonstrated no significant difference in achievement on the five dependent measures from their "average- achieving" peers who did not need Reading Recovery™ as an early intervention program (Reference Group). However, when compared to their "at-risk" peers for reading and writing difficulties (Comparison Group), significant differences were noted favoring the Treatment Group in achievement levels of all five dependent variables assessed during the two-year longitudinal study; The exception of the *Burt Word Reading Test*, in which significantly higher achievement was obtained at the fall 1999 and the spring 2000 testing trials only. Significantly higher achievement levels for the Reference Group were also noted on four of the five dependent measures when comparing the Comparison Group: there was no significant difference between the Reference Group and the Comparison Group on the *Gentry Spelling Assessment*. Similar trends noted in achievement between the Treatment Group and the Reference

Group were found in the *Burt Word Reading Test*, in which significantly higher achievement was identified at the fall 1999 and the spring 2000 testing trials only when compared to the Comparison Group. The research findings are discussed further in the following section.

Interpretation of Research Findings

It is important to note that the participants comprising the Treatment Group and who were successfully discontinued from Reading Recovery^{TM}, were identified as among the lowest achieving students in their grade 1 class. Achievement scores were described as being in the lowest 10%-20% of their classes. Based upon the guidelines for acceptance into the Reading Recovery^{TM} program it is understood that the Treatment Group demonstrated lower achievement in reading and writing skills than the participants in the Reference Group and the Comparison Group. This made their achievements over the two-year longitudinal study all the more significant.

Despite that differences were identified in overall achievement, within-group analysis identified that, in three of the five dependent measures, all groups progressed at a similar rate of progress over time and in all five of the dependent measures each group made significant gains in achievement over the two year testing period. The following discussion provides interpretation and discussion of particular trends in the achievement of the three study groups examined.

Treatment Group and Comparison Group

To evaluate the impact of Reading Recovery^{TM} on students identified as "at-risk" of reading and writing difficulty, those students, who received Reading Recovery^{TM} in grade 1 and successfully discontinued (Treatment Group), were examined in relation to their "at-risk" classmates unable to receive Reading Recovery^{TM} as an early intervention (Comparison Group). Examination of group effects indicates that for all five dependent measures the Comparison Group scored significantly lower in achievement than did the Treatment Group. However, the Comparison Group made positive gains in relation to their initial testing scores. In the reading comprehension, fluency, and spelling skills assessment, the Comparison Group not only made progress over time, but also progressed at a similar rate to the Treatment Group. A significant difference in rate of progress was noted in reading achievement and word recognition skills, and the means suggested progress in these skills was made at a slower rate for the Comparison Group. The following discussion outlines specific trends in development.

Reading levels. A significant difference was found between the achievement scores of the Treatment Group and the Comparison Group for all four testing trials. Results indicated that students who received Reading Recovery^{TM} as an early intervention program demonstrated faster reading progression than their "at-risk" peers.

    Reading comprehension. The participants in the Treatment Group achieved
significantly higher scores than the participants needing Reading Recovery^{TM}
intervention. Both groups progressed over time (see Figure 2). Examination of
reading and reading comprehension levels identify a gap between material read and
material understood at the instructional level (see Figure 6). Fall 1998 testing
indicated a gap of 0.8 of a grade level existed and widened to 1.2 in the spring 1999.
The difference in reading and reading comprehension narrowed slightly and
remained constant over the final two testing trials with a difference of 0.8 and 0.9
respectively. The participants who received Reading Recovery^{TM} demonstrated
comprehension levels comparable to their reading instructional levels. Results
suggest that the Treatment Group demonstrated better developed comprehension
strategies for reading material at their instructional level.

    Word recognition. Analysis of word recognition skills indicated that
although positive gains were made during the two year period, a significant
difference in the rate of progress was determined between the Treatment Group and
the Comparison Group, in which the treatment Group scored significantly higher at
the fall 1999 and the spring 2000 testing trials. Further analysis of age equivalency
in relation to participant's chronological age also suggested a slower rate of progress
for the Comparison Group than for the Treatment Group who achieved average to
above average scores in the first three testing trials and above average in the spring
2000 testing (see Table 9). At the first testing trial, the Comparison Group

demonstrated scores within the average age equivalent band. However, in the spring 1999 and the fall 1999 achievement fell in the below average to average range as determined by their chronological age. This achievement steadily decreased in the spring 2000 to suggest below average achievement.

Table 9

Mean Equivalent Age Band for *Burt Word Reading Test*

Group (Approximate age band)	Fall 1998 (6:09-7:09)	Spring 1999 (7:05-8:05)	Fall 1999 (7:09-8:09)	Spring 2000 (8:05- 9:05)
Treatment Group	7:07-8:01	8:01-8:07	8:06-9:00	9:06-10:00
Reference Group	7:10-8:04	8:02-8:08	8:11-9:05	9:11-10:05
Comparison Group	6:11-7:05	7:02-7:08	7:04-7:10	7:08-8:02

Spelling. There was no significant difference in pattern of progress between both the Treatment Group and the Comparison Group. Both groups made positive gains in relation to their own abilities in spelling achievement. However, the Treatment Group scored significantly higher in spelling development than their "at-risk" peers contained in the Comparison Group.

Analysis of trends in mean total spelling scores based on descriptive strategies further identifies the low progress of the Comparison Group in relation to the Treatment Group. The Treatment Group had the highest achievement of all three

groups. In the first testing trial students were at the Phonetic-Transitional stage and progressed steadily to Transitional-Correct stage at the final testing trial. The Comparison group, on the other hand, were at the Semi-phonetic-Phonetic stage in the first testing trial. At the spring 1999 testing they improved to the phonetic stage, however, they remained in the Phonetic-Transitional stage for the last year of the study. Progress for the Comparison Group, although positive, remained in the Phonetic-Transitional stage of spelling development, suggesting that the participants "at-risk" and who needed Reading Recovery™ were able to maintain gains in spelling development, but were unable to independently build upon existing skills for significant improvement.

Fluency skills. The Comparison Group made steady progress in fluency over time and progressed at a similar rate of progress as the Treatment Group. Despite progress made, scores were significantly lower than that of the Treatment Group (see Figure 5). The Comparison Group maintained a rating of poor/staccato fluency to good/fair fluency in the first three testing trials and received a rating of good/fair fluency in the spring 2000 testing. Results suggest that the Comparison Group had experienced difficulty with fluency and phrasing for reading material at their instructional level and in grade 3 still never recovered their fluency ratings to help in development of reading levels.

Treatment Group and Reference Group

    The intent of Reading Recovery™ as an early intervention program is to accelerate the learning of "at-risk" readers and writers to bring them to average levels within their classroom. Thus, Reading Recovery™ participants were compared to a Reference Group consisting of their "average- achieving" classmates. On all five dependent measures, participants in the Treatment Group scored at comparable levels to the Reference Group, suggesting that Reading Recovery™, as an early intervention program, was successful in bringing the lowest achieving grade 1 students to "average" levels. It also appears that Reading Recovery™ was effective in helping students develop a "self-extending system" to sustain gains and produce long-lasting effects on reading development, word recognition skills, reading comprehension, spelling strategies and fluency skills.

    Reading levels. At the beginning of grade 2, when the first testing trial commenced, the Reference Group demonstrated slightly higher reading levels than the Treatment Group, approximately one year higher (see Figure 1), but this difference was not significant. At the spring 1999 testing, the difference remained constant; however, again not significant. The gap in reading levels between the Treatment Group and the Reference Group appeared to narrow at the fall 1999 testing trial and was now 0.3 of a grade level in difference between groups. At the final testing trial, in the spring 2000, the Treatment Group narrowed the gap in reading achievement scores of their "average-achieving" peers and surpassed their

reading levels by 0.1 of a graded reading level. The difference between the two groups and the rate of progress was not significant, but this does indicate that students in the Treatment Group were able to maintain skills comparable to their "average-achieving" peers, and continue to make accelerated gains. The results further support the development of a "self-extending system" after the discontinuation of an intensive early intervention program. With skills obtained in early intervention, students were enabled to function independently in subsequent years and to build upon existing skills in order to succeed in challenging environments.

Similar results were presented by Shanahan and Barr (1995) in which participants were identified as maintaining learning gains from Reading Recovery[TM] intervention when compared to their "average-achieving" peers; however, reading levels were slightly below their "average-achieving" classmates until the third grade. It is expected that after discontinuing an intensive intervention program, students would be challenged or have more difficulty without continued additional support. However, continued improvement in performance and long-term success suggests that the theory of the development of a "self-extending system" was supported. The children's rate of progress improved in the third grade with the development of metacognitive strategies to support their own learning development (Shanahan & Barr, 1995).

Reading comprehension. Although there was no significant difference in the performance of the Treatment Group and the Reference Group in reading comprehension skills, the students in the Treatment Group demonstrated higher scores overall, than the Reference Group (see Figure 2). This indicates that the participants in the Treatment Group demonstrated reading comprehension levels equivalent to their instructional levels, whereas the Reference Group demonstrated reading comprehension levels approximately 1.5 grade levels behind their reading instructional level. Results suggested that participants who were successfully discontinued from Reading Recovery™ better developed comprehension skills than their "average-achieving" classmates for material read orally.

Word recognition skills. Both the Treatment Group and the Reference Group progressed similarly in achievement of word recognition skills. The Reference Group scores were slightly higher than Treatment Group; however, progress remained parallel between groups with no significant difference (see Figure 3). Further examination of age equivalency for both the Treatment Group and the Reference Group identified scores average to above average in word recognition skills based on the participant's chronological age at the time of testing as shown in Table 9.

Trends in the last year of testing suggest that steady gains in word recognition skills resulted in above average scores for the Reference Group in the fall 1999 and the spring 2000 and the Treatment Group in the spring 2000. The results further

support sustained gains and the development of a "self-extending system" with Reading Recovery™ intervention, thus it can be concluded that participants who received Reading Recovery™ continued to build upon existing strategies in deciphering unknown and complex words comparable to their "average-achieving" peers.

Spelling. No significant difference was noted statistically between the Treatment Group and the Reference Group in spelling skills. However, the means for the Treatment Group were slightly higher for all testing trials (see Figure 4). Performance also remained constant for the two groups over time, thus, the Treatment Group's performance was deemed equivalent to the Reference Group over the two years.

The Treatment Group and the Reference Group commenced testing with a category rating within the Phonetic-Transitional stage of spelling development. Trends in patterns of spelling development indicated that the Treatment Group progressed to the Transitional stage and then to the Transitional-Correct stage of development at the spring 1999 and fall 2000 testing trials respectively and maintained progress at the final testing trial. The Reference Group, on the other hand, remained in the Phonetic-Transitional stage of spelling development for the spring 1999 and fall 1999 testing trials. Progress to the Transitional-Correct stage did not occur until the final testing trial in the spring 2000. Although differences in

the patterns of spelling development for the Treatment Group and the Reference Group were identified, no significant difference existed between the two groups.

Further analysis indicated that the Treatment Group continued to progress independently through the stages of spelling development, supporting the acquirement of a "self-extending system" through early intervention that enables students to build upon existing skills to sustain and improve upon previous learning gains in spelling achievement.

Fluency skills. There were no significant differences in fluency performance between the Treatment Group and the Reference Group, although the means of the Treatment Group were consistently higher than those of the Reference Group (see Figure 5). The highest overall rating of fluency given to a child was 3 points. The mean fluency of the Treatment Group began at 2.5 indicating very fluent reading and the Reference Group began their rating at 2.1, lower on the scale, indicating fair fluency. The Treatment Group made gains in the second testing trial, however, at the fall 1999 testing achieved a rating of 2.8 and maintained this rating until the end of the two-year testing period. The Reference Group, also maintained a fair rating for fluency in the second testing trial with a rating of 2.2; however, it showed improvement in the third and final testing trial maintaining a rating of very fluent reading with a constant score of 2.6.

Results suggest that participants who were successfully discontinued from Reading Recovery™ appeared to have better developed fluency skills after Reading

Recovery™ intervention than their "average-achieving" classmates, suggesting that fluency and phrasing skills were sustained after Reading Recovery™ intervention. It is possible that because of such a high rating of fluency after the intensive one-on-one intervention, there was minimal improvement over the two-year study. Thus, one can conclude that fluency and phrasing development of the Reading Recovery™ lesson helps build fluency skills for students who have received Reading Recovery™ to be comparable to that of their "average-achieving" classmates.

Reference Group and Comparison Group

It is the assumption that without additional assistance of the Reading Recovery™ program in grade 1, participants in the Comparison Group would continue to perform at levels significantly below their "average-achieving" classmates (Reference Group). The findings of the research study concluded that the Comparison Group scored significantly below the Reference Group on four out of the five dependent measures. Further analysis of the *Gentry Spelling Assessment* identified no significant difference between the Comparison Group and the Reference Group. The Reference Group's achievement was determined to be between that of the Treatment Group and Comparison Group, thus not significantly different from both groups. Similar trends noted in achievement between the Treatment Group and the Comparison Group were also analyzed with the *Burt Word Reading Test*, when comparing the Reference Group and the Comparison Group.

Significantly higher achievement was observed in favor of the Reference Group at the fall 1999 and the spring 2000 testing trials only.

<u>Conclusions</u>

The results of the this study showed that Reading Recovery™ was effective in bringing a sample of lowest achieving students in grade 1 to achievement levels comparable to their "average-achieving" classmates and this confirms that the principles outlined in the Reading Recovery™ program were effective in producing significant and long-term effects in their reading and writing development.

Clay's (1991, 1993b) theory of learning to read and write is based on the principle that children construct cognitive systems to understand the world and language. These cognitive systems develop as "self-extending systems" that generate further learning through the use of multiple sources of information. In learning to read, children acquire a set of mental operations that make a "self-extending system" for reading and writing. These strategies allow them to use language and world knowledge and to integrate information from many different sources. Therefore, the goal of Reading Recovery™ is for children to become self-sufficient readers and writers, thus learning more about reading everyday independent of direct instruction (Clay & Cazden, 1991). Based on the results presented, one can conclude that the participants who received Reading Recovery™ as an early intervention program developed a "self-extending system" that

encouraged independent progressive learning.

Implications

A review of the literature has lead the researcher to conclude that traditional remedial programs have failed to address the difficulties "at-risk" students are experiencing with reading and writing (Allington, 2001; Clay, 1993b; Gersten & Dimino, 1990; Pikulski, 1994; Pinnell et al., 1995; Shanahan & Barr, 1995). Educators strive to develop effective literacy programs that will support the needs of "at-risk" students in the long-term continuation of their literacy development.

Clay's (1979, 1993a, 1993b) Reading Recovery™ program has been recognized by educators and fellow researchers as a theoretically sound comprehensive approach to literacy development for children "at-risk" of reading and writing difficulties (Askew et al., 1999; Brown et al., 1999; Center et al., 1995; Gregory et al., 1993; Hovest & Day, 1997; Jaggar & Simic, 1996; Pinnell et al., 1994; Ross et al., 1995; Shanahan & Barr, 1995; Wasik & Slavin, 1993). This study presented here further corroborates specified research examined in Chapter 2, as well as, further suggests implications that contribute to current research in Reading Recovery™. The following discussion outlines implications of the research presented.

Reading Recovery™ Research in Canada

Research in Reading Recovery™ has been questioned in terms of methodology and the need for more independent research outside the Reading Recovery™ Council of North America. The researcher can attest to the need for more research in the area of Reading Recovery™ especially in relation to Canadian implementation. The research study presented is independent of the Reading Recovery™ Council of North America, in that it is a thesis project required for a Master's completion. The research was conducted in Labrador so it is not only a Canadian study but also one that involves a myriad of cultures not reported on in previous research.

Qualitative analysis of teacher responses contained in the *Questionnaire for Classroom Teachers* reveal many challenges of teaching children of multi-cultural background such as language barriers of both the children and the parents (i.e., syntax and semantic), cultural values and understanding of literacy education, lack of book knowledge and different literature experience, and loss of instructional time. Therefore, research that suggests the effectiveness of Reading Recovery™, attests that this early intervention program are successful for children of a variety of cultural backgrounds and experiences.

Representative Sample of Reading Recovery[TM] Students

Program factors supplied by Reading Recovery[TM] teachers on the programs of each participant identified that children in the Treatment Group met the guidelines of the program's criteria for selection, thus are considered by the researcher to be a representative sample of the population requiring Reading Recovery[TM]. On average, Reading Recovery[TM] students complete their individual programs in 12-20 weeks. Participants selected for the Labrador study completed their programs in a mean number of 14 weeks and 50 lessons, which is representative of the guidelines presented worldwide (see Table15, Appendix D). When examining program information, participants began their programs with a mean book level of 3. When converted to grade equivalent a level 3 book is representative of beginning reading in pre to early Kindergarten, thus, demonstrating a need for early intervention for children in grade 1. In contrast the end mean reading level of the participants was indicated as a book level 21, which is representative of early grade 2 reading material. This is indicative of the acceleration rate that "at-risk" students can obtain in 12-20 weeks. It was reported that participants remained at approximately three books per level before progressing on to the next book level in their program.

It is also identified in the research that Reading Recovery[TM] students experience increased self-concept and higher confidence levels in their abilities after Reading Recovery[TM] (Cohen et al., 1989; Rumbaugh & Brown, 2000; Traynelis-Yurek & Hansell, 1993). Classroom teachers used the *Student Record Sheet* (see

Appendix C) to rate student's attitude toward reading and writing before and after Reading Recovery™. Ratings appeared to increase dramatically. For example, the ratings of "good" or "excellent" were identified as 33% and 25% for reading and writing respectively before Reading Recovery™ intervention (see Table 16 Appendix D) and increased to 100% for both reading and writing after the Reading Recovery™. In reading, 83% were rated as having an excellent attitude toward reading and 75% demonstrated an excellent attitude toward writing after Reading Recovery™ intervention. The remainder of students were rated as having good attitudes toward reading and writing with 17% and 25% respectively. Thus, with the appropriate instruction and guidance the lowest 10%-20% of students can accelerate to average- above average levels in the short term to achieve long-term effects in academic achievement and self-concept.

Integrated Approach to Reading and Writing

Reading Recovery™ is recognized as a balanced, integrated approach to literacy intervention, which is an important principle of an effective program in literacy development. Skills developed in Reading Recovery™ are "interrelated to a set of learning experiences" (Pinnell, 2000). One key concept of Reading Recovery™ is that all new learning is reinforced and connected throughout the lesson's framework based on the unique needs of the student. All reading and writing lesson components described throughout this section are interconnected to

ensure maximum learning of a concept, and teaching for strategic process (Wasik & Slavin, 1993). This provides practice of important concepts through a balance of structured activities to achieve accelerated progress and develop a "self-extending system" for future learning (Pinnell, 2000).

Examination of the results has identified the importance of an integrated approach to reading and writing development. For example, the results suggested that the Treatment Group demonstrated more comparable reading comprehension in relation to their reading instructional levels. This can be explained by looking at the consistency in achievement on the other testing measures. Although the *Diagnostic Reading Inventory*: graded reading levels, *Burt Word test* and fluency ratings were comparable to their "average-achieving" peers (Reference Group), the Treatment Group demonstrated consistently higher ratings of fluency after Reading Recovery™ intervention. Fluent reading is important in not only the flow and pleasing sound of oral reading, it is also important in gaining meaning of text. Actually recognizing and using strategies to decipher words is a first step in reading and can show higher levels of reading than the child can actually handle. A child can read words, but if fluency is staccato or choppy and not phrased appropriately, then understanding is not facilitated. All the child's energy may be taken in actually reading words with little left for the other reading processes.

We assume that "average" readers and writers develop a "self-extending system" independent of early intervention. One of the principles of Reading

Recovery^{TM} is to guide "at-risk" students in their learning helping them to develop
metacognitive strategies and make connections throughout their learning. Hence, the
development of a "self-extending system". The results of the Comparison Group
suggest the inability to independently develop a "self-extending system" that enables
them to build upon strategies or transfer existing skills to bring their achievement to
the "average" of their class. The Comparison Group experienced deficiencies in
word recognition and fluency, thus, further supporting difficulties with reading
achievement and lower reading comprehension levels in relation to instructional
reading levels. As Pinnell (2000) revealed, all reading and writing learning
experiences are interrelated; thus, difficulty in one area will affect achievement in all
other areas of the reading and writing process. The Comparison Group did show
progress over time, however, was unable to make progress at the same rate as did the
Treatment Group. Thus, the assumption can be made that with Reading Recovery^{TM}
intervention the same results could have been expected for the Comparison Group,
knowing that these students were not the lowest students in the 10%-20% requiring
Reading Recovery^{TM}.

Sustained Gains and Improvement Over Time

There were significant differences between achievement levels of both the
Treatment Group and the Reference Group when compared to results of the
Comparison Group. Despite the significant differences between groups, each group

made positive gains over the two-year period. The three groups progressed with similar patterns over time, except that the Comparison Group did not progress at the same rate on the *Diagnostic Reading Inventory:* graded reading levels, and the *Burt Word Test.*

It is assumed that the participants receiving Reading Recovery[TM] and their "average-achieving" classmates would progress similarly because the goal of Reading Recovery[TM] is to bring the lowest achieving 10%-20% of "at-risk" students to "average- achieving" levels. Both the participants who received Reading Recovery[TM] and the participants achieving at "average" rates did not require any additional intervention above regular classroom instruction during the two-year longitudinal study (see Table 17, Appendix D). Therefore, the results support this assumption.

The results of the Comparison Group maintaining and increasing in achievement can be explained simply by maturation. It is expected that there will be improvement within a classroom setting and through other means of support provided to students. Table 17 in Appendix D identifies the mean percentage of participants within the three groups who received additional interventions in grade 2 and continued to receive additional academic support during the two-year longitudinal study. As indicated 58% in the Comparison Group required remedial reading as additional support to assist in skills development as well as, 17% required special education services and 8% Speech Language Support. With regular

classroom teaching and additional supports improvement should be noted.

It was also identified that the Comparison Group also demonstrated a rate of progress similar to the Treatment Group and the Reference Group in three of the five dependent measures. It was anticipated by the researcher based on previous research and experience in the classroom that the rate of progress would be slower for the Comparison Group. This would be manifested as an interaction effect. Interaction effects were obtained on the *Diagnostic Reading Inventory*: graded reading levels, and the *Burt Word Test*, but not for the other three dependent variables. Therefore, questionnaires for teachers, school administrator and Reading Recovery™ teachers were further examined to determine what factors may have influenced performance of the Comparison Group.

According to Allington (2001) effective schools demonstrate more quality reading and writing instruction in their classrooms. Clay (1993b) further explains the need for good classroom teaching to provide effective instruction and the appropriate interventions for students to build effective strategies. Based on this, responses provided by 22 classroom teachers to the *Questionnaire for Classroom Teachers* (Appendix C) were examined. The questionnaire focused on what classroom teachers were doing within their classrooms in terms of instructional practices. A list of quality instructional literacy practices for primary grades were included and teachers were asked to evaluate their usage of each instructional practice based on the timeframe of one month (see Table 18, Appendix D). Results

of teacher responses indicated that the majority of instructional practices that are considered effective classroom methods in teaching literacy were done daily and weekly, thus suggesting that quality teaching is occurring in all classes.

In addition to classroom methods used for instructional purposes, the amount of time spend\t on reading and writing instruction per day was examined (Table 19, Appendix D) Teachers reported that beginning in Kindergarten, in a 3 hour day, 94 minutes was spent on reading time and 71 minutes spent on writing activities. As the demand for literacy development increased with curriculum requirements, the amount of instructional time in reading and writing increased in grade 1 to 115 minutes per day in reading activity and 100 minutes in writing. As students became more independent and less support was required the amount of minutes of reading and writing instruction decreased. In grade 2 and 3 the reading time decreased 108 minutes per day and 80 minutes per day respectively. Writing instructional time also decreased even more so that the reading time in grades two and 3 with 90 minutes per day and 52 minutes per day respectively. If this is an accurate reflection of instructional time in reading and writing, and not free activity or time to complete assigned work, this amount of time per day is impressive and considered a part of good classroom teaching. Therefore, given the premise that all participants are taught in the same classrooms, may explain why a similar rate of progress in reading comprehension, spelling attempts, and fluency were identified for all groups.

Another factor to consider is the level of experience of the classroom teacher. Naturally, if a classroom teacher has considerable experience at the primary level they have a bank of professional knowledge, classroom experience and the organizational skills and classroom management strategies to work effectively with students of a variety of levels. Therefore, students in a classroom with a teacher possessing a myriad of skills may benefit and improve greatly over time.

Approximately 83% of the 22 classroom teachers surveyed had 11 to 30 years experience teaching at the primary level and the remaining 17% were teaching 0 to 10 years in primary methods. When asked to respond to professional development as acquiring new and improving classroom methods, 73% of the 22 teachers surveyed revealed that they had participated in staff development involving reading and writing instruction for primary methods with the Labrador School Board and 41% identified that the professional development had an impact on their delivery of classroom instruction. A breakdown of characteristics of classroom teachers is contained in Table 20 contained in Appendix D. Based upon responses provided by classroom teachers, experience and continued professional development may certainly help students maintain and increase academic gains at a steady rate in relation to ability.

"Snowball Effect" of Reading Recovery™ in the School Setting

Criticisms of Reading Recovery™ (Canning, 1996), which set the stage for future recommendations of its implementation in Newfoundland and Labrador, have focused on the Reading Recovery™ program operating independently of the school's overall reading program and the lack of influence and change that Reading Recovery™ has had on a teacher's approach to reading and writing. Questionnaires administered to a further sample of 11 Reading Recovery™ teachers, and 11 school administrators revealed a positive impact on all involved in the school environment including students, teachers, school administrators and parents (for the *Questionnaire for Reading Recovery™ Teachers* and *Questionnaire for School Administrators* see Appendix C). The presentation of the Reading Recovery™ implementation appears to have become a way of life for the schools surveyed within the district. This in turn may be indicative of the overall progress observed in all groups over time.

According to Lyons, Deford and Pinnell (1993) "bringing Reading Recovery™ into an educational system such as a school " and school district is almost certain to necessitate change. Change can be determined on four levels if Reading Recovery™ is to work effectively (Clay, 1987).

1.   Behavioral change on part of the teachers

2.   Child behavior change achieved by teaching (indicated in study results)

3.   Organizational changes in school achieved by teachers and administrators.

4.   Social and political changes in funding by controlling authorities.

The former Director of Education, Mr. Cal Patey (see Appendix F) attributes the following factors to the success of Reading Recovery™ within the Labrador School Board which are characteristic of factors identified by Clay (1987).

1.   Supportive School Board on all levels of administration

2.   Adequate funding provided by the Labrador School Board

3.   Willingness of teachers and administrators to make changes in
      attitudes and organization of schools

4.   Effective training model and professional development provided by
      Teacher Leaders

The following discussion examines responses by classroom teachers, Reading Recovery™ teachers, school administrators and the Director of Education in order to determine the effect that Reading Recovery™ implementation has made in the Labrador School Board.

Classroom teachers. 91% of the 22 classroom teachers surveyed indicated that Reading Recovery™ had a positive effect on their classroom reading program and also on their teaching and instructional style. In consideration of Reading Recovery™ as valuable intervention program, 91% of classroom teachers rated the program as invaluable and 9% presented a rating of somewhat valuable for "at-risk" students (see Table 20, Appendix D). To further support the value classroom teachers placed on Reading Recovery™, 73% observed a Reading Recovery™

lesson of a student within their class and 64% actually attended a Reading Recovery™ training session within their school district. The intent was to gain knowledge in the strategies used to support the Reading Recovery™ students in their classroom during and after their programs, as well as to help other students develop appropriate and effective literacy skills within the regular classroom setting. Through interaction within the school and professional development involving Reading Recovery™, 64% of classroom teachers felt that they were very familiar with the principles of Reading Recovery™ and 32% felt that they were somewhat familiar with the principles of the program. As indicated, one teacher who completed the *Questionnaire for Classroom Teachers* was on a replacement contract thus, making up the 4% of classroom teachers uncertain of the underlying principles of the program. No teachers felt that they were unfamiliar with the principles of Reading Recovery™. Similar responses were identified in the familiarity of the guidelines of Reading Recovery™. Out of the 22 classroom teachers surveyed, only 14% felt uncertain about the Reading Recovery™ guidelines whereas, 77% felt they were familiar with the guidelines of the program and 9% were somewhat familiar (for detailed results see Table 21, Appendix D).

Based upon responses of classroom teachers, the suggestion of behavior changes of classroom teachers in relation to new and innovative classroom teaching methods, attitudes toward literacy development and professional development appears to have occurred in favor of Reading Recovery™ as an effective early

intervention program. Willingness to accept change especially among classroom teachers possessing 16 years of combined experience (see Table 20, Appendix D), indicates the value of Reading Recovery™ with its adoption as a philosophy of teaching and learning.

Reading Recovery™ teachers. 90% of the 11 Reading Recovery™ teachers surveyed also were assigned as primary teachers from Kindergarten to grade 4 (see Table 22, Appendix D). Therefore, the researcher assumed that a "snowball effect" had taken place and the classroom teachers who were Reading Recovery™ trained would positively use their knowledge of strategies and Reading Recovery™ methods to assist all students in the classroom, thus, providing further support to the positive progress of participants within the three study groups. Similarly, 27% of the Reading Recovery™ teachers surveyed were also special educational teachers within the school. As identified earlier, 58% of the participants needing Reading Recovery™ required remedial reading and 17% required special education services, thus also supporting that the effectiveness of the principles of Reading Recovery™ can carry over into the other teaching assignments involving those students requiring early intervention.

Qualitative analysis of statements contained in the questionnaires contained in Appendix E was conducted. One Reading Recovery™ teacher shared " I have used various Reading Recovery™ strategies and practices with my resource room children. These children are weak in language arts". Another explained that " I now

understand that reading and writing must go together and is not a sequence of prearranged steps, but a process which simultaneously looks at meaning, structure and visual information." Other references have been identified in the use of strategies within the classroom. A teacher with 26 years of experience shared " I do a much better job of teaching reading and writing in my regular Kindergarten and grade 1 class. The children in my class are reading and writing better than they did before I received Reading Recovery™ training". One Kindergarten teacher stated " I see new ways to present the Kindergarten program". Thus, the statements indicated further support a that Reading Recovery™ is not just an early intervention program, but a change in teaching and learning that carries over into the school environment to benefit all students early in school.

    <u>School administrators.</u> Successful implementation of Reading Recovery™ involves the adoption of the program at all levels within the school district. School administrators including principals and assistant principals need to make the necessary allocations of staff and accommodations for scheduling in order for Reading Recovery™ teachers to complete their role within the school. It was an unwritten rule by the former Director of Education, Mr. Cal Patey, that Reading Recovery™ allocation of time was not to be interrupted during the school day. Within the Labrador School Board the majority of the Reading Recovery™ teachers have other classroom duties within the primary and specialist positions. This was the intent of administration at the school and school board level in order to help facilitate

a "snowball effect" in all facets of the school environment. For instance, 9% of the 11 administrators surveyed indicated that the main reason for the implementation of Reading Recovery™ in their school was that they, themselves, were trained Reading Recovery™ teachers and knew the effectiveness of the program on the learning of students (see Table 23, Appendix D).

The Director of Education for the Labrador School Board appeared to be a key proponent of Reading Recovery™ and 45% of administrators chose the program as an opportunity to provide additional support and as a perceived need by the members of their staff. Involvement in Reading Recovery™ did not stop at just choosing a program for students and teachers, 73% of school administrators have observed a Reading Recovery™ lesson within their school and 9% of school administrators attended a Reading Recovery™ training session. Within the Labrador School Board, many school administrators have been selected and trained in the administration of the Observational Survey, which is required to be administered at the beginning and end of the student's programs. Because of the distances of the Labrador region, school administrators assessed students at the end of their programs. The final testing using the Observational Survey must not be completed by the individual student's Reading Recovery™ teacher for validity and reliability reasons, thus, the administrator provided an unbiased analysis of skills that better represented the student when considering discontinuation. As a result of the involvement of school administrators, 36% felt that they were very familiar with the

principles of Reading Recovery[TM] and 55% indicated they were somewhat familiar. Only 9% felt they were not at all familiar with the underlying principles. In comparison to the familiarity of the guidelines of Reading Recovery[TM], 27% of administrators felt they were familiar with the guidelines and 55% felt they were somewhat familiar. Only 9% of school administrators, felt they were not very familiar or not familiar at all with the guidelines of the Reading Recovery[TM] program. Thus, the school administrators were active in the program implementation and changes made to the organization of the school's functioning to ensure its success (Table 24, Appendix D).

In terms of administrators' perceptions of the value of Reading Recovery[TM] as an early intervention program, 64% of administrators felt the program was invaluable and 36% felt it was somewhat valuable (see Table 24, Appendix D). When asked to respond to their perception of Reading Recovery[TM] students, 73% felt highly positive and 27% positive about the success of students. In relation to student success, 82% of administrators felt highly positive and 18% identified they felt positive about the work of the Reading Recovery[TM] teachers. Thus, the value of the program and its effects as perceived by school administrators have been established. Further responses to perceptions can be found in Table24 contained in Appendix D.

Parental involvement. Classroom teachers and school administrators rated parental involvement of the participants in Reading Recovery[TM]. The responses of both in the *Questionnaires for Classroom Teachers* and the *Questionnaires Reading*

Recovery^TM Teachers revealed that one of the major challenges with teaching students of multicultural background was home involvement. Within the Reading Recovery^TM program guidelines, parental involvement is of the utmost importance and parents are provided with an in-service session on the homework strategies required and a contract is signed to accept responsibility for their child's program such as homework completion and satisfactory attendance. Parents are also invited to attend a viewing of their child's Reading Recovery^TM lesson to ensure that the parents are involved in all aspects of the student's program.

When asked to rate the impact of Reading Recovery^TM on parental involvement, 89% of classroom teachers perceived an increased parental interest in their children's program and 74% felt that parents were becoming strong advocates for their child's literacy development. Only 5% of classroom teachers believed that parents were "strongly opposed", "demonstrated no change", or " parents were always supportive" in the involvement of their child's literacy program (see Table 26, Appendix D). When asked to rate homework completion for the participants who were successfully discontinued from Reading Recovery^TM, it was identified that a mean of 94% of participants consistently completed their homework (see Table 15, Appendix D). Attendance, also a concern for teachers, was rated on each participants' profile sheet. Each participant was individually rated and 83% of participants successfully discontinued form Reading Recovery^TM were given a rating of excellent and 17% a rating of good (see Table15, Appendix D). It is assumed that

providing a structure as in the guidelines of Reading Recovery™ to parents and actively encouraging more responsibility in their child's development and learning is suggestive that parental involvement will increase in visible areas within the school such as homework completion and attendance. One classroom teacher further supports this conclusion and responded that "parents are more aware of the importance of early reading and taking a more active role in helping their child begin reading".

School administrators were also asked to rate their perception of parental views and attitudes toward Reading Recovery™ within their schools. The positive responses representing classroom teacher's perceptions were comparable to the rating of the views and attitudes of parents as rated by the 11 school administrators suggesting reliable interpretation. Responses analyzed in the *Questionnaire for School Administrators* contained in Table 25, revealed that 55% of school administrators felt that parents represented highly positive attitudes towards Reading Recovery™ as an early intervention for their children and 36% were positive about the results of the early intervention program within their school. Only 9% of administrators believed there was no impact on the parent's views and attitudes in relation to Reading Recovery™ implementation. Considering that many of the challenges indicated by classroom teachers and Reading Recovery™ teachers were related to parental involvement and home support, the following results are suggestive of very positive interactions between the school and the home in

educating multicultural children. Moore and Wade (1993) further supported the implications of increased parental involvement. Their research conclusions suggested a positive effect on the school environment leading to gains in parental involvement, more prominence of reading in homes and increased confidence on the participants regarding their reading abilities. This validates similar results the research study presented.

Addressing Needs

The research presented indicates that participants "at-risk" and needing Reading Recovery™ as an early intervention made progress over time based on their ability, but their achievement did not accelerate to levels comparable to their "at-risk" who were successfully discontinued from Reading Recovery™ and "average achieving" peers. The unfortunate problem is the lack of trained Reading Recovery™ teachers to provide this early intervention program to all students. One teacher's opinion sums the overall views of the Labrador School District:

> "The only problem with Reading Recovery™ in our school is the high percentage of children who need it. We draw from a population that is high in illiteracy of parents and low income. We do not have enough teaching units to meet the needs and in trying to free up people for Reading Recovery™, we have to overload others. Although I am not actively teaching Reading Recovery™, I am so grateful for the skills it has given me in my teaching of young children to read and write. All primary teachers should be Reading Recovery™ trained. This province needs to embrace Reading

Recovery^{TM}, put the resources in place and thus, make our province a leader in literacy".

Clay (1987) identified that in order for Reading Recovery^{TM} to be effective for all students, social and political changes to funding is necessary. The Newfoundland and Labrador Government's Department of Education has yet to accept Reading Recovery^{TM} in their allocations of funds. Mr. Cal Patey states "The Department of Education is supportive of literacy initiatives generally. However, Reading Recovery^{TM} is not funded by the province." Initiative to implement the program is solely based upon individual school districts. Members of the Labrador School District have been advocates of the program and met with officials to provide information concerning the program. Although cost effectiveness is of concern for our province (Canning, 1996), it is not unrealistic that provinces fund a program of its caliber. For the past two years, the province of Manitoba has provided funding to school districts for Reading Recovery^{TM} implementation and maintenance.

Criticisms of the long-term expenditure and poor cost effectiveness of a Reading Recovery^{TM} program are ongoing (Canning 1996; Grossen & Coulter, 2001; Heibert,1994; Shanahan & Barr, 1995). Dyer (1992) indicated that Reading Recovery^{TM} is cost effective when examining the savings in retention of children and the reduced need for special education services for school districts (Lyons, 1989, Lyons, 1991). School administrators rated the effects of Reading Recovery^{TM} in the *Questionnaire for School Administrators*. Out of the 11 school administrators

surveyed, 73% identified that their school experienced decreased grade retention rates, decreased special education services in the primary level and lower referral rates. Only 27% of school administrators made no response to the survey question due to no statistical data for their school (see Table 23, Appendix D). Thus, the overall impact of Reading Recovery^{TM} appears positive and the sacrifices of organization within schools appear to be more substantial than the overall costs of the program.

Recommendations

The study raised some areas of interest for further investigation and results that may assist in identifying effective programs for children:

1. The study presented was not meant not be exhaustive in nature, but a "tip of the iceberg", in the area of Canadian research for Reading Recovery^{TM} in Newfoundland and Labrador. It is merely a representation Reading Recovery^{TM} as an early intervention program in six schools within the Labrador School Board. The door was opened for other areas of research that can build upon concepts within this study, more particularly those expressed in the questionnaires. The purpose of the questionnaires was to support the research findings within this study. However, areas of research involving values, perceptions, parental involvement, teaching methods, attributes of success, cost effectiveness versus referral and retention rates can be examined as individual topics of research.

2.   Based upon the research, it was evident that the participants who were successfully discontinued from Reading Recovery™ accelerated or maintained levels comparable to their "average-achieving" peers. Children who required Reading Recovery™ as an early intervention demonstrated significantly lower levels of achievement. It is assumed that through the guidance of a trained Reading Recovery™ teacher, children develop a "self-extending system" that enable them to develop metacognitive skills equivalent to their "average-achieving" peers. Therefore, it would be beneficial to examine further, the use of strategies (i.e., meaning, structure and visual information) in both reading and writing. This will determine differences between groups in strategy development. One concern is that a dependent measure to determine strategy use will need to be controlled for all groups. Analysis of strategy use was attempted on participant's instructional levels. The formula used to determine instructional reading levels divides the number of errors into the number of words in a passage to determine the level of accuracy (see Appendix B). However, with a different number of errors required in determining instructional reading levels, the results were chaotic and unreliable. Research in this area would have been useful in interpretation of the current results of this study.

3.   Trends in reading levels and reading comprehension levels identified that the participants who were successfully discontinued from Reading

Recovery™ demonstrated higher comprehension scores overall that were more consistent than the other two study groups. Reading Recovery™ proponents use "teacher talk" and questioning techniques to help develop comprehension skills within the Reading Recovery™ lesson. Evidence also presents the value of Reading Recovery™ within the Labrador School Board and the willingness to accept and develop Reading Recovery™ strategies and teaching techniques within the classroom. Thus, a suggestion for Teacher Leaders and Reading Recovery™ teachers is to take advantage of opportunities to expand professional development in this area to non-Reading Recovery™ teachers that teach in the primary/elementary grades. This may be completed in the form of an in-service session after school, or a group of teachers coming together to make comprehension and developing teaching strategies to use in the regular classroom as a school wide initiative. This may prove especially useful in Labrador in which schools are located in isolated regions. Overall, this appears to be a way to further transfer the effects of Reading Recovery™ in the regular classroom setting.

4. In examination of teaching methods, it is also important for administrators and teachers to recognize that Reading Recovery™ is not a "quick fix". For students to maintain gains and to continue reading and writing improvement, effective teaching is important. This was identified in the

results, in that, although there was significant difference in achievement for the Treatment Group and the Reference Group, when compared to the Comparison Group, all groups made positive gains in relation to their initial achievement scores at the first testing trial. The Comparison Group also progressed at similar rates in spelling, fluency and comprehension skills in the analysis. According to Allington (2001), the emphasis and value of effective teaching should continue beyond the primary levels to help cope with transitions in instructional practices and increased expectations of independence. This can be accomplished with continued professional development and evaluation of teachers. It was also identified that 9% of Reading Recovery™ teachers surveyed were also grade 4 teachers . Implications for training teachers in Reading Recovery™ at higher levels may indeed be an option for school districts to continue skill development and monitor progress. Also, the recommendation of literacy teams in examining the concerns with comprehension can also be implemented among elementary teachers to assist in the continuance of good quality teaching.

5. The study presented followed three groups of students from the beginning of grade 2 until the end of grade 3. Although the two- year longitudinal study was proposed to determine long-term effectiveness, there are the concerns of the students transitioning to grade 4. It is a common concern

for all students about the demands and changes in teaching style from the primary to elementary grades. Research is required to further examine the effects of Reading Recovery^{TM} on participants in the elementary grades to benefit the understanding of the long-term gains made by Reading Recovery^{TM} students.

6. A final recommendation is for schools to examine the scheduling and allocation of reading and writing instructional periods. Table 13 indicated that the percentage of students choosing to read as an activity was on average 20% higher than students choosing to write as an activity. The percentages identified included all children and not just those participating in the study. Further examination also suggested a difference of approximately 21% more reading instruction was provided than in writing instruction from grades kindergarten to grade 3. What is most concerning is that writing instruction dropped from 90% to 52% from grade 2 to grade 3. The emphasis on instructing children focuses on acquiring reading skills and then to maintaining and developing " life-long readers". In the process of developing skills, the fact that reading and writing are integrative processes should not be forgotten. As indicated in the implications of research, positive attitudes toward reading and writing increased dramatically after Reading Recovery^{TM}, which is based on an integrative approach to reading and writing. In today's society, writing skills are

equally as important, therefore strategies and techniques need to be implemented in writing. In reality, writing skills evolve over time with guidance and instruction and become more demanding as grades increase, whereas with appropriate first teaching in reading and independent practice, reading can develop naturally. Therefore, written expression needs to be addressed comparable to reading instruction not just to focus on effective development of skills, but also as an activity that is enjoyed.

The research study presented opens the door for professionals to establish an effective means of early intervention in reading and writing development. It has been identified through the research and supported in the conclusions of this study that Reading Recovery™ can help grade 1 students develop strategies through a "scaffolding" of skills and increase independence to demonstrate effective use of metacognitive processing. Literacy skills gained through Reading Recovery™ have been noted to remain solid over time, thus maintaining learning gains and long-lasting effects to develop later learning. It has been recognized that Reading Recovery™, not only has a positive effect on program children, but also on the attitudes and development of teachers, school administrators and parents. Currently, research in the area of the effectiveness of Reading Recovery™ in relation to Canadian population is limited; however, the effects of the program can be identified at Reading Recovery™ sites across the country. Current research in program

effectiveness involves cohorts in the United States and New Zealand. Thus, based on the consistent principles and guidelines of the Reading Recovery[TM] program worldwide, results can continue to be examined with the understanding that the program is non-biased and the skills being taught are consistent with the needs of all "at-risk" children. At present, Departments of Education across Canada with the exception of Manitoba are not acknowledging Reading Recovery[TM] as a program within their school systems. The responsibility of offering and maintaining the program financially is dependent upon individual school boards. One suggestion for school districts is to come together to support costs of training teacher leaders and sharing resources of training teachers among school districts. This method of delivery has been shown to be effective in the Labrador School District and is now an initiative in the Department of Education in Manitoba. In Newfoundland and Labrador, the Labrador School District, the Vista School District and the Cormack Trail School District offer Reading Recovery[TM] as an early intervention program for "at-risk" students. To provide the opportunity to access this valuable program for students in Newfoundland and Labrador, school districts may have to examine the option of sharing resources and financial costs to make this a reality. Therefore, if we are to expect change and gain support for a program with criticisms of cost-effectiveness and the inability to help all children, further research must be initiated in Canada.

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APPENDIX A

Correspondence

Tracy Penney
P.O Box 105
Hopedale, Labrador
AOP 1G0

Mr. Cal Patey
Labrador School Board
Happy -Valley Goose Bay, Labrador
AOP 1EO

Dear Mr. Patey,

For the past year, I have been working on a Masters of Educational
Psychology - School Counseling at Memorial University. I have discussed on many
occasions with Joan Hughes my interest in developing a thesis involving our
Reading Recovery program in Labrador. With Joan's continued support and
encouragement, I put the wheels in motion this summer. During the summer, I
presented my ideas to a professor at the university and I am pleased to inform you
that I have obtained a thesis advisor interested in the study as well.

I am currently developing a full proposal to submit to the ethics committee at
Memorial University. The outline of the study at present is to design a longitudinal
study of the Reading Recovery students that were discontinued by fully trained
Reading Recovery teachers in the coastal communities and Goose Bay. I wish to
follow these children for two years by testing them using informal testing procedures
to identify if they have maintained their growth in reading and writing. As well, I
will be taking a Comparision Group of other students in their class that has not
received Reading Recovery^{TM} and compare the performance of the discontinued
children to their peers. A second component of the study is to interview teachers,
administration, and hopefully parents on the effects of Reading Recovery in their
school and children's lives. This maybe more difficult concerning the distance from
the communities involved. Finally, I would also like to take a further in-depth look at
the statistics of our Reading Recovery program concerning referral rates, number of
weeks to discontinuation, number of students serviced, as well as, retention rates in
each school. I feel in order to obtain a global picture these areas must be explored.

Dr. Glassman and I have discussed the limitations to the study with concern
to testing children in other communities twice a year, as well as my, dual role as a
researcher and a Reading Recovery^{TM} teacher. In terms of testing, I am hoping to
have the support of the teachers in the communities involved to help with this hurdle
and I will be presenting the idea of the study a the upcoming primary conference to
gain an idea of possible support.

In writing this letter, my intentions are to keep you informed of progress to
date and to also inquire to any suggestions that you feel would be an asset to the

study. I also will be in contact with the Canadian Institute of Reading Recovery™ to inform them of my intentions. I am not only looking at this study as a necessary step to the completion of my Master's program, but more importantly I feel it is something that I can give back to the Labrador School Board for all the dedication and time that has been given to me in my training as a Reading Recovery™ Teacher. Without the opportunity to train and develop as a successful teacher this study would not be possible.

If you have any questions or ideas concerning the study then feel free to contact me anytime. I welcome all input that can help improve the study in question. When the proposal is completed, I will forward a copy to the school board to your attention, as well as, a copy to Joan Hughes and Diane Stuart or Irene Huggins. Thank you for your time and attention to my correspondence. I am looking forward to seeing you in the new school year.

Sincerely,

Tracy F. Penney

cc: Joan Hughes
    Rick Plowman

LABRADOR SCHOOL BOARD
P. O. Box 1810, Stn. "B"
Happy Valley-Goose Bay, Labrador
A0P 1E0

September 29, 1998

Ms. Tracy Penney
P. O. Box 105
Hopedale, Labrador
A0P 1G0

Dear Ms. Penney:

I am writing to acknowledge your correspondence of September 9, 1998, in which you informed me of your plans to develop a thesis involving the Reading Recovery program in our School District.

I believe that your study would be of considerable interest to us, and I would like to take this opportunity to offer our full support, and wish you success with this project.

Sincerely,

Cal Patey
Director of Education

CP:rm

Memorial
University of Newfoundland

Faculty of Education
Graduate Programmes & Research

January 29, 1999

Ms. Tracey Penney
General Delivery
Hopedale, LB
A0P 1G0

Dear Ms. Penney:

After reviewing your proposal, the Ethics Review Committee has concluded that it meets the guidelines for research of the University and Faculty pending the following minor modifications:

- that you specify in your letter of parental consent the purpose of the research is for a thesis;
- that you identify the name and number of your supervisor and a third party contact;
- that the research has been approved by the Ethics Review Committee.

Please note that this study pertains to the testing of children. Collecting data from parents is another issue that would need to be addressed separately. I mention this because I noticed you asked parents if they would be willing to answer a questionnaire. However, a parental questionnaire was not part of the original proposal, and would need to be addressed separately.

We wish you all the best in your research.

Sincerely,

Jim Hunt

for T. Seifert
Ethics Review Committee

cc   Marc Glassman

Description of Research Study
Reading Recovery™ Implementation in Labrador

Letter to Reading Recovery™ Personnel

The study will involve three groups of children; those discontinued in 1997-98 by a trained Reading Recovery™ Teacher (not a teacher in training), those children who needed Reading Recovery™ but were unable to receive the program because of time, lack of trained Reading Recovery™ Teachers or various other reasons, and finally those who did not need the program. This will be a two-year longitudinal study involving the study group (discontinued children) and two comparison groups mentioned above.

During the next two years, I wish to compile statistics involving retention rates, referral rates etc..., as well as, views of teachers and administrators on the effects of Reading Recovery™ on our students and our school system. These are the people who make it work and without their support, the program would not be possible. This is a chance to present all our hard work to other interested professionals.

Over the course of the next week, I was hoping if you could look at your grade one children of last year and put each child in the group that identifies the child's status in June 1998. For your carry over students this September, they don't apply to these groups; therefore will not be included in any of the three groups listed.

Tracy Penney
Fax Number: 933 -3805

Participant Survey

School:_____ **RR Teacher:**_____

Discontinued Students	Children who did not need R.R. ™	Children who needed R.R.™
1.	1.	1.
2	2.	2.
3	3.	3.
4.	4.	4.
5.	5.	5.
6	6.	6.
7.	7.	7.
8.	8.	8.
9.	9.	9.
10.	10.	10.
11.	11.	11.
12.	12.	12.

Reading Recovery™ Implementation In Labrador
Participant Consent Form

Dear Parent or Guardian,

My name is Tracy Penney and I am a teacher with the Labrador School Board. I have spent the last year working on a Masters of Education Program at Memorial University of Newfoundland. Through the course of my program, I have decided to develop a study involving the Reading Recovery™ Program in Labrador. I am presently seeking participants for the study and would like to invite your child to participate in this study.

The study will include children in grade two this year and have been in a school where Reading Recovery™ was implemented. Your child will be placed in one of three groups based on the category that applies to your child's situation; Discontinued Reading Recovery Students; Children who did not need Reading Recovery; and Children who needed Reading Recovery but were unable to receive the program. Over the next two years, your child's reading and writing progress will be monitored by means of Informal Reading Inventories, Word Tests and The Gentry Spelling Assessment. The testing will be administered by Reading Recovery™ teachers in your child's school and it will be made clear to your child that he/she can stop participation at any time and return to their classroom if they he/she wishes. The testing should take approximately 30-minutes and will be completed twice a year in the fall and spring.

All information collected in this study is strictly confidential and at no time will individuals be identified. I am interested in determining what effects Reading Recovery™ instruction has on children compared to their same aged peers and not in any individual child's performance. To ensure confidentiality, your child will be assigned a number within their group rather than the use of names. Participation is voluntary and your child may withdraw at any time. I have also been given approval and full support by The Labrador School Board to proceed with the study once participants have been selected and consent has given by parents.

If you are in agreement with having your child participate in this study please sign below and return one copy to the classroom teacher. The other is for you. If you have any questions or concerns please do not hesitate to contact me at Amos Comenius Memorial School, 933-3813 or Joan Hughes at 896-2431. If you would like to speak with a resource person not associated with the study you may contact my supervisor Marc Glassman, Memorial University of Newfoundland at 737-7627.

I would appreciate it if you would return the sheet to me by September 30, 1998. Thank you for consideration of this request.

Sincerely,

Reading Recovery™ In Labrador
Participant Consent Form

I _____ (parent/guardian) hereby give permission for my child to take part in the study to examine the Reading Recovery™ Program in Labrador being undertaken by Tracy Penney. I understand that participation is voluntary and that my child and/or I can withdraw permission at any time. All information is strictly confidential and no individual will be identified at any time.

_____   _____
Date   Parent /Guardian Signature

APPENDIX B

Instrumentation

Reading Recovery™ Implementation in Labrador
Thesis Project

List of Graded Passages

Form A

Max	1A-Mid	
Up in the Attic	1A-End	
Magic Boots	2A-1	
Baby Deer's	2A-2	
Rascal is Lost	3A-1	
Part of the Team	3A-2	
Just One More	4A-N	
Superstitions	4A-1	
The Wrong Decision	5A-N	
Dr. Norman Bethune	5A-1	
Friendly Advice	6A-N	
Bats	6A-1	

Form B

A Pet for Ann	1B-Mid
Daisy's Friend	1B-2
Friends	2B-1
Grumpy Bear's Big Day	2B-2
Camping Surprise	3B-1
A Visit to Earth	3B-2
The New Horse	4B-N
Soddies	4B-1
Breakaway	5B-N
Hearing Ear Dogs	5B-1
Alone	6B-1
The Whooping Crane	6B-1

Form C

Jet the Dog	1C-Mid
Lost at the Zoo	1C-2
Something New	2C-1
Alone on the mountain	2C-2
Two Dragons go to School	3C-1
The Trap	3C-2
The Dark Tent	4C-N
The Buffalo	4C-1
Through the Storm	5C-N
Roller Skating	5C-1
A Close Call	6C-N
Beavers	6C-1

Form D

A Big Surprise	1D-Mid
A Fast Ride	1D-2
A Surprise Visitor	2D-1
Janet's Surprise	2D-2
The Soccer Game	3D-1
A Friend Indeed	3D-2
Jen's Rotten Day	4D-N
Grizzly Bears	4D-1
The Final Game	5D-N
Terry Fox	5D-1
The Big Step	6D-N
Meteorites	6D-1

CALCULATION AND CONVERSION TABLES
(CLAY, 1993a)

CALCULATIONS
(RW=Running Words; E=Errors; SC= Self Corrections)

ERROR RATE	ACCURACY	SELF-CORRECTION RATE
$\dfrac{\text{Running Words}}{\text{Errors}}$	$100 = \dfrac{E}{RW} \times \dfrac{100}{1}$	$\dfrac{E + SC}{SC}$
i.e. $\dfrac{150}{15}$ = Ratio 1:10	$100 = \dfrac{15}{150} \times \dfrac{100}{1}$ $= 90\%$	$\dfrac{15+5}{5}$ = Ratio 1:4

CONVERSION TABLE

Error Rate	Percentage Accuracy	Description
1:200	99.5	
1:100	99	
1:50	98	
1:35	97	Good opportunities for teachers to observe children's "reading work"
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	The reader tends to lose the support of the meaning of text
1:6	83	
1:5	80	
1:4	75	
1:3	66	
1:2	50	

Reading Recovery™ Implementation in Labrador
Thesis Project

Burt Word Reading Test

Description:

The Burt Word Reading Test is an individually administered measure of an aspect of child's word recognition skills. It consists of 110 words printed in different sizes of type and graded in order of difficulty. The child is asked to read as many words from the Test Card as he/she can read and continues until ten consecutive words are read incorrectly. At this point he/she is given the opportunity to look at the remaining words and see if any other words are recognized.

The revised edition of the *Burt Word Reading Test* has been standardized for New Zealand Children and age norms have been provided for children aged 6.0 years to 12.11 years. This word Test is used with every child tested to be considered for Reading Recovery™, thus provides a comparable measure for all children in the study.

It is important to emphasize that word recognition is only one aspect of the total reading process. Reading is a complex set of skills and successful reading involves achievement in a number of areas such as comprehension, vocabulary and fluency, as well as, word recognition. *The Burt Word Reading Test* should be considered as an estimate of word recognition skills and identify trends in how children approach unknown words rather than as a derived score on a test as a "reading age". The equivalent age band for this study will be used to chart progress not identify reading age scores.

Trends that may warrant consideration in each analysis include difficulty with recognition of initial, middle and terminal consonant sounds, as well as, vowels and their sounds, poor syllabification, word attack skills or inadequate knowledge of affixes, prefixes and suffixes. Also, omissions of endings, inability to chunk known parts in words such as and frequent guesses are all indicators of other potential reading difficulties to examine in analysis.

Administration:

1) After recording the child's personal data and ensuring that he/she is relaxed, pass the test card to the child and say
   On this card are some words I think you can read. Let's see which ones you know. Start here and read the words across the card. (point from word to word along the first line).

2) The child holds the test card him/herself during the testing. Only read from the test card not the record form.

3) Children should be started at the beginning of the test and reading of the words should continue until **ten consecutive words** are read incorrectly.

4) After all the words have been exhausted by the child, say to the child *Look over the rest of the words and see if you can read any more.*

5) *There is no time limit.* Let the child take his/her time and they should not be hurried. The child should be permitted to sufficient time to analyze their responses. Some children who are very slow readers show an ability to analyze and synthesize words. If time has elapsed and no response, it maybe necessary to encourage a response or to move on to the next word.

6) *The child may use any method of reading the words as long as he /she is not aided.* There should be no prompting offered to the child during testing. While encouragement and praise is important, it is also important to let the child explore and see what he/she can do. This is an assessment tool not a teaching tool.

7) *Criteria for correct pronunciation.*
The pronunciation of each word must be that of its current usage to be accepted as correct. Consonants, vowels and accents must all be correct. For example, the child may correctly produce the consonant and vowels sounds in "journey" however, may place the accent by putting it on the last syllable. In such a case this will be counted as incorrect.

Consideration must be made for children with difficulties in the mechanics of speech ,as well as, dialects and children from different language backgrounds.

Children should not be asked to reread a word unless the examiner is uncertain of their first response. If there is no doubt that the word is pronounced incorrectly than it should be scored as incorrect and move on to the next word. When asked to repeat a response the examiner should clarify that they did not hear the first response rather than the child thinking he/she was incorrect and try another pronunciation.

Examiner: *I didn't hear what you said for that word. Would you say it again for me please?*

Should a child be reading too quickly for scoring and recording he/she may be asked to stop and read more slowly. If necessary , he/she may be returned to the point where the pace of reading troubled the examiner.

During the assessment, the examiner must remain neutral. Therefore, there must be no prompting and the child must arrive at the word without aid from the examiner. The child must not be told if he/she is right or wrong, nor indirectly by examining the record form or nonverbal communications by the examiner. The examiner may respond to a direct enquiry from the child on how they doing by saying *You're doing just fine.*

Recording the Results:

To ensure consistency the Record Form provided should be used. The recording should be done unobtrusively and out of sight of the child. If the child is able to see the errors then he/she may be discouraged a try assessment of the child's ability may not be obtained.

Words Read Correctly	
Incorrectly Pronounced	**Actual pronunciation**
No attempt or I don't know	**DK**

The appropriate number of correct responses should be recorded in the appropriate space provided.

Burt Word Reading Test Record Form

Name:_____   *Number Correct*

School:_____Sex:_____   EAB:_____

Age:_____ Years_____ Month Class:_____

to	is	Up	for	big
he	at	One	my	sun
went	girl	Boys	day	some
his	that	Of	an	wet
love	water	No	just	pot
or	now	Things	told	sad
carry	village	Quickly	nurse	beware
return	scramble	Twisted	journey	luncheon
known	shelves	Explorer	tongue	projecting
terror	serious	Belief	events	emergency
refrigerator	steadiness	Obtain	overwhelmed	universal
nourishment	encyclopedia	Commenced	circumstances	fringe
formulate	motionless	Trudging	theory	destiny
scarcely	exhausted	Labourers	urge	atmosphere
apprehend	binocular	Domineer	melodrama	economy
ultimate	reputation	Humanity	excessively	philosopher
autobiography	contemptuous	Terminology	mercenary	glycerine
unique	microscopical	Perpetual	efficiency	influential
perambulating	renown	Physician	champagne	exorbitant
hypocritical	atrocious	constitutionally	contagion	palpable
melancholy	eccentricity	fatigue	phlegmatic	fallacious
alienate	poignancy	Phthisis	ingratiating	subtlety

Reading Recovery™ Implementation in Labrador

Thesis Project

Burt Word Reading Test (New Zealand Revision) 1981, Scottish Council For Research

to	is	up	for	big
he	at	one	my	sun
went	girl	boys	day	some
his	that	of	an	wet
love	water	no	just	pot
or	now	things	told	sad
carry	village	quickly	nurse	beware
return	scramble	twisted	journey	luncheon
known	shelves	explorer	tongue	projecting
terror	serious	belief	events	emergency
refrigerator	steadiness	obtain	overwhelmed	universal
nourishment	encyclopedia	commenced	circumstances	fringe
formulate	motionless	trudging	theory	destiny
scarcely	exhausted	labourers	urge	atmosphere
apprehend	binocular	domineer	melodrama	economy
ultimate	reputation	humanity	excessively	philosopher
autobiography	contemptuous	terminology	mercenary	glycerine
unique	microscopical	perpetual	efficiency	influential
perambulating	renown	physician	champagne	exorbitant
hypocritical	atrocious	constitutionally	contagion	palpable
melancholy	eccentricity	fatigue	phlegmatic	fallacious
alienate	poignancy	phthisis	ingratiating	subtlety

Equivalent Age Bands (EAB–Boys and Girls) for the Burt Word Test, New Zealand Revision

Score	Equivalent Age Bands Boys & Girls	Score	Boys & Girls
20	5.10-6.04	50	8.04-8.10
21	5.11-6.05	51	8.05-8.11
22	6.00-6.06	52	8.06-9.00
23	6.01-6.07	53	8.08-9.02
24	6.02-6.08	54	8.09-9.03
25	6.03-6.09	55	8.10-9.04
26	6.04-6.10	56	8.11-9.05
27	6.05-6.11	57	9.01-9.07
28	6.06-7.00	58	9.02-9.08
29	6.07-7.01	59	9.04-9.10
30	6.08-7.02	60	9.06-10.00
31	6.09-7.03	61	9.08-10.02
32	6.10-7.04	62	9.09-10.04
33	6.11-7.05	63	9.11-10.05
34	7.00-7.06	64	10.00-10.06
35	7.01-7.07	65	10.02-10.08
36	7.02-7.08	66	10.03-10.09
37	7.03-7.09	67	10.04-10.10
38	7.04-7.10	68	10.06-11.00
39	7.05-7.11	69	10.07-11.01
40	7.06-8.00	70	10.09-11.03
41	7.07-8.01	71	10.10-11.04
42	7.08-8.02	72	11.00-11.06
43	7.09-8.03	73	11.01-11.07
44	7.10-8.04	74	11.03-11.09
45	7.11-8.05	75	11.05-11.11
46	8.00-8.06	76	11.07-12.01
47	8.01-8.07	77	11.09-12.03
48	8.02-8.08	78	11.11-12.05
49	8.03-8.09	79	12.01-12.07
		80	12.03-12.09

Reading Recovery^{TM} Implementation in Labrador
Thesis Project

Retelling Strategy

In this strategy the instructional level graded passage read by the student will be used. After determining the instructional level of the child, have the student retell the passage in the student's own words. This retelling is analyzed for patterns that show how the student is synthesizing, inferring and analyzing to reconstruct meaning. The patterns are interpreted to determine if the student is using both background knowledge and passage information to summarize the ideas. An audiotape will be provided to tape the session.

Administering the Strategy

1. Determine the child's instructional level from running records. Child must read it orally.
2. Be prepared to give the comprehension questions after the retelling. Determine the instructional level from the miscues used and the running words in the passage (*RW / errors*).
3. Audio tape the retelling to be reviewed by researcher.
4. After the child has finished reading remove the passage.
5. Use the following prompts:

   Pretend I have not read this story(passage). Tell me about it.

   Record an "R" in the blank in front of the comprehension questions answered spontaneously during the retelling.

   Encourage the child to retell all that can be remembered by asking questions such as:

   Can you tell me any more? Or Anything else?

   Indicate if prompted by questions with a "P".

6. When nothing else can be told about the story or the child is silent say:

   Now I want you to answer some questions about the story (passage).

Ask only those comprehension questions not answered spontaneously in the retelling. Ask the comprehension questions in the order in which they are listed.

Reading Recovery™ Implementation in Labrador
Thesis Project

The Gentry Spelling Assessment

Administration:

Explain that the words they are about to read some words and you want them to say them slowly. What you want your students to do is event the spelling or use their best guess at what the spelling may be. **Encourage** them to put something down for each word. Explain that the activity will not be graded as right or wrong, and that you just want to see how they write words.

Fold the work Sample Sheet before giving it to the child.
Call out each word from the Word List below, give the sentence provided, and call the word again.

Please Return the work samples with the record form.

Word List

1.	monster	-	The boy was eaten by a **monster.**
2.	united	-	My penpal lives in **United** States
3.	dress	-	The girl wore a new **dress**
4.	bottom	-	A big fish lives in the **bottom** of the pond.
5.	hiked	-	We **hiked** to the top of the mountain.
6.	human	-	Miss Piggy is not **human.**
7.	eagle	-	An **eagle** is a powerful bird.
8.	closed	-	The little girl **closed** the door.
9.	bumped	-	The car **bumped** into the bus.
10.	type	-	**Type** the letter on the typewriter.

Reading Recovery™ Implementation in Labrador
Thesis Project

The Gentry Spelling Assessment Work Sample

Name: _____

Date: _____

--Fold Here--------------------------------------

APPENDIX C

Questionnaires

Reading Recovery™ In Labrador
Thesis Project

Student Record Sheet
For Discontinued Reading Recovery™ Students

To be completed by Reading Recovery™ Teachers

Student:_____
Reading Recovery™ Teacher:_____
Date of Birth:_____
Date Completed: _____

A. For Reading Recovery™ Students

1.   What is the status of the student?
       1.   Discontinued _____
       2.   Did not need Reading Recovery™ _____
       3.   Needed Reading Recovery™ but was unable to access the program _____

Identify the reason for the participant not receiving Reading Recovery™.
_____
_____

2.   Identify the cultural heritage/ nationality of the student:
       1. White
       2. Inuit   _____
       3. Innu   _____
       4. Settler   _____
       5. British   _____
       6. German _____
       7. Other   _____

3.   Rate the child's attendance at school.

1——————— 2 ————————3———————— 4 ———————————5
very poor   poor   moderate   good   excellent

4.   When were the participants Reading Recovery™ Program initiated?   _____

5. When was the program completed? _____

6. How many lessons did the child receive in the program? _____

7. How many lessons did the child miss (total)? _____

- Child Absences _____
- Teacher Absences _____
- School Events _____
- Holidays _____
- Other _____

8. At what book level was the student reading at the onset of the program? _____

9. At what book level was the student reading at the completion of the program. _____

10. What was the average number of books used at each book level for this student? _____

11. When asked to complete Reading Recovery™ homework, how frequently do you feel this was done? Give percentage.
_____ %

12. Did the student require a Reading Buddy inside the school to help meet their reading homework needs? _____

13. Did the student require any other support in the classroom or with their regular program other than Reading Recovery™? _____

14. Rate the child's attitude toward reading before Reading Recovery™?

1------------------ 2 ------------------3------------------ 4 ------------------5
very poor   poor   moderate   good   excellent

15. Rate the child's attitude toward writing before Reading Recovery™?

1------------------ 2 ------------------3------------------ 4 ------------------5
very poor   poor   moderate   good   excellent

16. Rate the child's attitude toward Reading after completion of Reading Recovery™?

1———————— 2 ————————3———————— 4 —————————5
very poor   poor   moderate   good   excellent

17. Rate the child's attitude toward writing after completion of Reading Recovery ™?

1	2	3	4	5
very poor	poor	moderate	good	excellent

18.   Please identify any other information about the child that you feel may be relevant that has influenced his/her performance or success in Reading Recovery™.

_____
_____
_____
_____
_____
_____
_____

Adapted from Gregory, Earl, & O'Donoghue (1993)

Reading Recovery^{TM} Implementation In Labrador
Thesis Project

Student Record Sheet - For All Participants
To be completed by all Classroom Teachers of Participants

Student Name:	_____
Date of Birth:	_____
Teacher:	_____
Date completed:	_____

A. For all Students

1. What is the status of the student.
    a) Discontinued _____
    b) Did not need Reading Recovery^{TM} _____
    c) Needed Reading Recovery^{TM} but was unable to access the
        program _____

    Identify the reason for the participant not receiving Reading Recovery^{TM}.
    _____
    _____

2. Identify the cultural heritage/ nationality of the student:
    1. White   _____
    2. Inuit   _____
    3. Innu   _____
    4. Settler   _____
    5. British   _____
    6. German   _____
    7. Other   _____

3. Rate the child's attendance at school.

    1---------------- 2 ----------------3----------------- 4 ------------------5
    very poor   poor   moderate   good   excellent

4. How many days was this student absent from school this year?
    _____

5.   Is there anything noteworthy about the child's absences (i.e. incidental absences, prolonged absences illness)

_____Yes

_____No

If yes, please identify reasons why?   _____

_____

_____

6.   How emotionally mature do you think this child is compared to his same aged peers? Circle the appropriate rating.

1--------------------2--------------------3--------------------4 --------------------5

very immature   somewhat immature   uncertain   somewhat mature   very mature

7.   Identify any medical or family information that may affect the student=s learning. Please explain.   _____

_____

_____

_____

B. Classroom Information:

1.   On average, how much time per day does this student spend engaged in each of the following tasks in the regular classroom?

Activities: Minutes Per Day

a)   Reading Instruction(i.e. guided reading ; shared reading; reading strategies; group discussion)   _____

b)   Assigned practice in reading (i.e. rereading familiar text)

_____

c)   Personal reading (i.e. self selected material)   _____

d)   Assigned practice in writing (composing as opposed to copying)   _____

e)   Writing as a free choice activity   _____

f)   Activity supportive of literacy(i.e. Following text through

taped material; letter/sound blocks; re-enacting a story;
retelling a story; questioning/conversation, etc...). _____

2.   Please rate the likelihood of each event based on the following scale. Circle
the number that best describes the student.

1————————————2————————————3————————————4
very unlikely   unlikely   somewhat likely   very likely

a) How likely is this student to *choose reading* as a free choice activity?

1   2   3   4

b) What would your rating of (a) been at the **beginning of the year**?

1   2   3   4

c) How likely is this student to *choose writing* as a free choice activity?

1   2   3   4

d) What would your rating of (c) been at the **beginning of the year**?

1   2   3   4

e) How likely is this student to *choose literacy related activities*
as a free choice activity?

1   2   3   4

f) What would your rating of (e) been at the **beginning of the year**?

1   2   3   4

3.   Using the following scale, please give your rating by circling the appropriate
number.

1————————————2————————————3————————————4
dislikes very much   appears to dislike   appears to enjoy   enjoys very much

a) Please rate your *perception* of this student's **enjoyment** of reading?

1   2   3   4

b) What would your rating of (a) have been at the **beginning of the year**?

1 2 3 4

c) Please rate your *perception* of this student's **enjoyment** of writing?

1 2 3 4

d) What would your rating of (c) have been at the **beginning of the year**?

1 2 3 4

4. a) Please rate your *perception* of how much involvement you feel this student's parents have with their **child's reading**? (Circle the appropriate number).

1------------------------2------------------------3------------------------4
not at all involved   not very involved   somewhat involved   very involved

b) What would your rating have been at the **beginning of the year**?

1------------------------2------------------------3------------------------4
not at all involved   not very involved   somewhat involved   very involved

c) If you have any other information concerning parental involvement, please explain below. _____

_____

_____

_____

_____

_____

5. Excluding Reading Recovery^TM, has this student received any other reading instruction or assistance in addition to classroom instruction due to reading difficulty (i.e. special Education; private tutoring ; after school remedial)?

_____Yes

_____No

6. If yes, please provide the following information about the nature of each program the child has received:

Program/Activity	Frequency/ times per week	Duration of session	Student teacher ratio	# of weeks
1. Special Education	_____	_____	_____	_____
2. ESL	_____	_____	_____	_____
3. Parent Volunteers	_____	_____	_____	_____
4. Private tutor	_____	_____	_____	_____
5. Student Assistant	_____	_____	_____	_____
6. Speech and Language	_____	_____	_____	_____
7. After school remedial	_____	_____	_____	_____
8. Other				
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

7. Please note any additional information about this student which you feel may have influenced his/her reading performance or success.

_____
_____
_____
_____
_____

Adapted from Gregory, Earl, & O'Donoghue (1993)

Reading Recovery[TM] Implementation In Labrador
Thesis Project

Teacher Questionnaire For Classroom Teachers

```
Teacher: _____
School:  _____
Date:    _____
```

A. Background Information:

1. What grade(s) do you teach?   _____

2. How long have you been teaching at the primary level?   _____

3. Please identify any other teaching assignments you have had in your career?
    ____Kindergarten
    ____Grades 1-3
    ____Grades 4-6
    ____Grades 7-9
    ____Grades 10-12
    ____Special Education
    ____Reading Recovery
    ____French
    ____ ESL
    ____ Other(i.e. technology, computer, library, Physical Education)
    Please identify.   _____
    _____

4. Please identify your teaching credentials? (i.e. B.ED., M..ED.) _____
    _____

B. Classroom Instruction and Practices:

1. In your regular classroom instruction, how frequently do you engage in the
    following activities? Please rate by circling the appropriate number.

1	2	3	4	5
never	once in awhile	once or twice a month	once or twice a week	daily
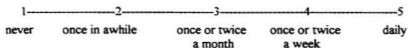
a) Read to your class orally (story time)?   1 2 3 4 5

b) Provide a discussion/introduction before the story is read?   1 2 3 4 5

c) Discuss stories after the story is read?   1 2 3 4 5

d) Engage in shared reading for instruction?   1 2 3 4 5

e) Assign practice of familiar reading material?   1 2 3 4 5

f) Provide time for personal reading ?   1 2 3 4 5

g) Provide instruction in reading strategies (i.e. visual ,   1 2 3 4 5
    semantic and syntactic information)?

h) Use reading buddies?   1 2 3 4 5

i) Respond to reading through a variety of open ended   1 2 3 4 5
    activities (i.e. retelling, drama, puppet use, painting, etc...)

j) Use flash cards, word cards, word games etc...?   1 2 3 4 5

k) Use phonics drills, tapes sheets etc...?   1 2 3 4 5

l) Use guided reading techniques?   1 2 3 4 5

m)   Use related workbook activities?   1 2 3 4 5

n)   Listen to individual children read aloud?   1 2 3 4 5

o)   Have children write answers to reading questions?   1 2 3 4 5

p)   Teach vocabulary prior to reading?   1 2 3 4 5

q)   Teach phonics rules?   1 2 3 4 5

r)   Model writing for your class?   1 2 3 4 5

s)   Model reading for your class(i.e. fluency,   1 2 3 4 5
     and phrasing)

t)   Provide time and opportunities for your class to write?   1 2 3 4 5

u)   Provide time and opportunities for your class   1 2 3 4 5
     to share their writing?

v)   Correct punctuation, capitalization and promote   1 2 3 4 5
     editing rules?

w)   Display individuals writing?   1 2 3 4 5

x)   Engage in other literacy-related activities? Please identify.
     _____ 1 2 3 4 5
     _____ 1 2 3 4 5

2.   What percentage of students in your class *chooses to read* on a
     regular and ongoing basis?

                                                    _____%

3. What percentage of students in your class *chooses to write* on a
    regular and ongoing basis?

    _____%

4. In your regular classroom, how much time per day(on average) is
    spent on *reading* instruction and **reading-related** activities?

    _____Mins

5. In your regular classroom, how much time per day(on average) is
    spent on *writing* instruction and **writing-related** activities?

    _____Mins

C. Classroom Resources:

1. What kinds of instructional materials do you use in your classroom? Check
    those materials that apply to your teaching?

    _____ Big books.
    _____ Sets of little books.
    _____ Literature anthologies(readers) with teacher >s manual.
    _____ Workbooks accompanying anthologies.
    _____ Student or teacher generated charts/text.
    _____ Published charts/poems etc....
    _____ Comprehension books and /or exercises.
    _____ Controlled texts(i.e. controlled sight vocabulary).
    _____ Teacher made games/ activities.
    _____ Other(please specify below)

    _____
    _____
    _____

2. Please rate the materials that you use most in your classroom instruction in descending order with 1 being the most used and 9 being the least used recourse.

_____ Big books.

_____ Sets of little books (i.e. Literacy 2000, Story box etc...).

_____ Literature anthologies(readers) with teacher >s manual.

_____ Workbooks accompanying anthologies.

_____ Student or teacher generated charts/text.

_____ Published charts/poems etc....

_____ Comprehension books and /or exercises.

_____ Teacher made games/ activities.

_____ Controlled texts(i.e. controlled sight vocabulary)

_____ Other(please specify below)

_____

_____

3. If applicable, please list any resources that you *do not have* but you feel would be valuable to your classroom instruction.

_____   _____

_____   _____

_____   _____

_____   _____

4. Which of the following are features of your classroom?

_____ Equipped with a variety of materials (type and genre) for practice and personal reading.

_____ Contains a reading center where books are accessible.

_____ Contains a writing center with writing materials and tools.

_____ Equipped with materials for reading - related and writing -related activities (i.e. puppet center; games; assisted reading (tapes) etc...).

5.   How many trade books (as opposed to textbooks) per child do you have in your classroom? _____

D.   Staff Development

1.   Have you participated in staff development of reading and/or writing instruction this year?

_____ Yes

_____ No   Go to section E

2. a) How many sessions have you attended?   _____

   b) What was the approximate duration of each session?   _____

   c) Has this staff development impacted on your reading / writing classroom instruction?

_____ Yes

_____ No

If yes, please explain   _____

_____

_____

_____

E.   Reading Recovery™

1.   How long ago were you introduced to Reading Recovery ™ ?

_____ Years

2.   How were you introduced to Reading Recovery? Check as many as apply?

_____ Introduced by a school Principal

_____ Introduced by a Reading Recovery Teacher

_____ Introduced by a Reading Recovery Teacher Leader

_____ Introduced by other teachers/colleagues within the Labrador School Board

_____ Introduced Through an in service session

_____ Through own study or research

_____ The program was implemented in my school

_____ Other (Please Specify)

_____

_____

3.   Please rate your familiarity with the Principles of the Reading Recovery Program? Circle the appropriate number.

1--------------------2--------------------3--------------------4--------------------5

not at all familiar not very familiar uncertain somewhat familiar very familiar

4.   Have you ever observed a Reading Recovery lesson?

_____ Yes

_____ No

5.   Have you ever attended a training session for Reading Recovery Teachers?

_____ Yes

_____ No

6.   Have any of your students (past or present) ever received Reading Recovery?

_____ Yes

_____ No

7.   Based on your knowledge of Reading Recovery, how would you rate the Reading Recovery program as an early intervention program for students? Please circle the appropriate number.

1--------------------2--------------------3--------------------4--------------------5

of no value   of little value   uncertain   somewhat valuable   invaluable

8.   Please comment on your response in question 7.

_____

_____

9. Based on your knowledge of Reading Recovery, how would you rate the underlying principles of Reading Recovery in terms of compatibility with the reading and writing instruction provided in your classroom?

```
1--------------------2--------------------3--------------------4--------------------5
not at all          not very          uncertain          moderately          very
compatible          compatible                           compatible          compatible
```

10. Please comment on your response in question 9.

    _____

    _____

11. Has Reading Recovery had any positive effect(s) on your reading program?

    _____ Yes

    _____ No

    If yes, please explain _____

    _____

    _____

12. Has Reading Recovery had any negative effect(s) on your reading program?

    _____ Yes

    _____ No

    If yes, please explain _____

    _____

    _____

13. Has Reading Recovery had any positive effect(s) on your own teaching and instructional style?

    _____ Yes

    _____ No

    If yes, please explain _____

    _____

14. Has Reading Recovery had any negative effect(s)on your own teaching and instructional style?

                 ____ Yes

                 ____ No

If yes, please explain _____

_____

15. Has Reading Recovery ^{TM} impacted your school environment?

                 ____ Yes

                 ____ No

If yes, please explain _____

_____

16. What effects has Reading Recovery^{TM} had on parental involvement overall? Check as many as apply.

         ____ No visible effects.

         ____ Increased interest/support in child's reading program.

         ____ No change; always supportive.

         ____ No change; little support.

         ____ Parents a strong advocate for Reading Recovery^{TM}.

         ____ Parents a strongly opposed to Reading Recovery$^{TM.}$

         ____ Other

_____

_____

17. Please identify any challenges you have experienced while teaching children of multi-cultural backgrounds how to read and write. Please explain.

_____

_____

_____

_____

F. Additional Comments:

_____

_____

_____

_____

Adapted from Gregory, Earl, & O'Donoghue (1993)

Reading Recovery™ In Labrador
Thesis Project

Teacher Questionnaire For Reading Recovery™ Teachers

Teacher:	_____
School:	_____
Date:	_____

A. Background Information:

1. How long have you been teaching at the primary level?
   (excluding occasional teaching)   _____

2. How long ago were you introduced to Reading Recovery ™ ?
   _____ Years

3. Including this year, how long have you been teaching Reading
   Recovery™?
   _____ Years

4. Please identify any other teaching assignments you have had in your career?
   ____Kindergarten
   ____Grades 1-3
   ____Grades 4-6
   ____Grades 7-9
   ____Grades 10-12
   ____Special Education
   ____Reading Recovery
   ____French
   ____ESL
   ____ Other(i.e. technology, computer, library, Physical Education)
   Please identify._____
   _____

5.   Please identify your teaching credentials? (i.e. B. ED., M. ED.)

_____

6.   In addition to Reading Recovery™, what other teaching responsibilities do
      you have *this year*?   _____

7.   How were you introduced to Reading Recovery? Check as many as apply?

_____ Introduced by a school Principal

_____ Introduced by a Reading Recovery Teacher

_____ Introduced by a Reading Recovery Teacher Leader

_____ Introduced by other teachers/colleagues within the Labrador
School Board

_____ Introduced through an in service session

_____ Through own study or research

_____ The program was implemented in my school

_____ Other (Please Specify)

_____

_____

8.   Why did you get involved in Reading Recovery™? Check as many as apply.

_____ Saw an opportunity to provide additional support to students.

_____ Saw an opportunity to enhance own professional
development.

_____ Have seen and heard about the results in the Labrador School
Board.

_____ Have heard about the results elsewhere.

_____ Recommended by school Principal or other board member.

_____ Other (please specify)

_____

_____

_____

9. Has Reading Recovery [TM] impacted your instructional practices in other areas?

Yes _____

No _____

N/A _____

If yes, please explain _____

_____

_____

_____

10. Please identify any challenges you have experienced while teaching children of multi-cultural backgrounds how to read and write. Please explain.

_____

_____

_____

_____

_____

_____

2. **Additional Comments:**

_____

_____

_____

_____

_____

_____

Adapted from Gregory, Earl, & O'Donoghue (1993)

Reading Recovery™ In Labrador
Thesis Project

Questionnaire For School Administrators

Name:_____   Date(d/m/y)_____
School: _____
Position: _____ Principal
             _____ Vice Principal

To determine how administrators perceive the success of **Reading Recovery™**
in the **Labrador School Board**, please complete the following questionnaire and
return it to Tracy Penney, Amos Comenius Memorial School, Hopedale,
Labrador.

1.   Why did you select Reading Recovery™ for your school? Check as many as
     apply.

     _____ Student need evident; opportunity to provide additional support
     _____ Perceived need by teacher(s) on staff
     _____ Brought to my attention by teacher/or colleague(s) outside of school
     _____ Suggested by Director of Education
     _____ Have read about/studied program's effectiveness elsewhere
     _____ Reading Recovery™ was in the school when I arrived
     _____ Other(Please specify)

     _____
     _____

2.   Please indicate your perception of the general impact of Reading Recovery™
     on each of the following by circling the appropriate number.

     1--------------2--------------3--------------4--------------5
     high negative   low negative   no impact   low positive   high positive
                                     at all

a)   The students receiving Reading Recovery™

                  1   2   3   4   5

b)   The teachers providing Reading Recovery™ instruction

                  1   2   3   4   5

c)   Regular classroom first grade teachers

                  1   2   3   4   5

d)   Your staff's attitude toward professional development

                  1   2   3   4   5

e)   The parent's views and attitudes

                  1   2   3   4   5

3.   What views have parents expressed about Reading Recovery™?

_____

_____

_____

4.   Please rate your familiarity with the Principles of the Reading Recovery™ Program? Circle the appropriate number.

1————————2————————3————————4————————5

not at all familiar   not very familiar   uncertain   somewhat   very
                                             familiar   familiar

5.   Please rate your familiarity with the guidelines of the Reading Recovery™ Program? Circle the appropriate number.

1————————2————————3————————4————————5

not at all familiar   not very familiar   uncertain   somewhat   very
                                             familiar   familiar

6.   Based on your knowledge of Reading Recovery™, how would you rate
     the Reading Recovery™ program as an intervention program for students?
     Please circle the appropriate number.

```
     1-------------------2-------------------3-------------------4-------------------5
of no value      of little value        uncertain        somewhat        invaluable
                                                          valuable
```

7.   Please circle the number below which best represents your staff's attitudes
     toward Reading Recovery™.

```
     1-------------------2-------------------3-------------------4-------------------5
of no value      of little value        uncertain        somewhat        invaluable
                                                          valuable
```

8.   Have you ever observed a Reading Recovery™ lesson?

                    Yes _____
                    No _____

9.   Have you ever attended a training session for Reading Recovery™ Teachers?

                    Yes _____
                    No _____

10. What effects has Reading Recovery™ had on your school since its
     implementation. Check those that apply to your school.

     _____ Deceased retention rates in the primary grades.
     _____ Decreased Special Education numbers in the primary grades.
     _____ Increased retention rates in the primary grades.
     _____ Higher Special Education numbers in the primary grades.
     _____ Lower referral rates to Special Services.
     _____ Increased referral rates.
     _____ No change in retention rates.
     _____ No change in referral rates.
     _____ No change in number of children requiring Special Education

11. If there were no changes in the number of children requiring special services in your primary area, please explain. _____

_____

_____

_____

12. If you have any reservations or concerns about the implementation of Reading Recovery in your school, please explain.

_____

_____

_____

_____

_____

13. **Additional Comments:**

_____

_____

_____

_____

_____

Adapted from Gregory, Earl, & O'Donoghue (1993)

APPENDIX D

Tables

Table 10

Multiple Comparisons of Groups' Means for Diagnostic Reading Inventory: Graded
Reading Levels

Time	Group Comparison	Significance
Fall 1998	Treatment Group and Reference Group	.193
	Treatment Group and Comparison Group	.042
	Reference Group and Comparison Group	.000
Spring 1999	Treatment Group and Reference Group	.393
	Treatment Group and Comparison Group	.021
	Reference Group and Comparison Group	.001
Fall 1999	Treatment Group and Reference Group	.855
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.000
Spring 2000	Treatment Group and Reference Group	.983
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.000

Table 11

Multiple Comparisons of Groups' Means for Burt Word Reading Test

Time	Group Comparison	Significance
Fall 1998	Treatment Group and Reference Group	.833
	Treatment Group and Comparison Group	.295
	Reference Group and Comparison Group	.106
Spring 1999	Treatment Group and Reference Group	.962
	Treatment Group and Comparison Group	.136
	Reference Group and Comparison Group	.080
Fall 1999	Treatment Group and Reference Group	.800
	Treatment Group and Comparison Group	.041
	Reference Group and Comparison Group	.022
Spring 2000	Treatment Group and Reference Group	.838
	Treatment Group and Comparison Group	.043
	Reference Group and Comparison Group	.013

Table 12

Multiple Comparisons of Groups' Means for *Diagnostic Reading Inventory* Graded
Reading Comprehension Levels

Time	Group Comparison	Significance
Fall 1998	Treatment Group and Reference Group	.194
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.047
Spring 1999	Treatment Group and Reference Group	.056
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.046
Fall 1999	Treatment Group and Reference Group	.447
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.002
Spring 2000	Treatment Group and Reference Group	.532
	Treatment Group and Comparison Group	.003
	Reference Group and Comparison Group	.043

Table 13

Multiple Comparisons of Groups' Means for the *Gentry Spelling Assessment*

Time	Group Comparison	Significance
Fall 1998	Treatment Group and Reference Group	.735
	Treatment Group and Comparison Group	.015
	Reference Group and Comparison Group	.082
Spring 1999	Treatment Group and Reference Group	.567
	Treatment Group and Comparison Group	.013
	Reference Group and Comparison Group	.130
Fall 1999	Treatment Group and Reference Group	.804
	Treatment Group and Comparison Group	.024
	Reference Group and Comparison Group	.090
Spring 2000	Treatment Group and Reference Group	.503
	Treatment Group and Comparison Group	.013
	Reference Group and Comparison Group	.159

Table 14

Multiple Comparisons of Groups' Means for Fluency Ratings

Time	Group Comparison	Significance
Fall 1998	Treatment Group and Reference Group	.194
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.041
Spring 1999	Treatment Group and Reference Group	.051
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.042
Fall 1999	Treatment Group and Reference Group	.447
	Treatment Group and Comparison Group	.000
	Reference Group and Comparison Group	.002
Spring 2000	Treatment Group and Reference Group	.532
	Treatment Group and Comparison Group	.003
	Reference Group and Comparison Group	.043

Table 15

Description of Program Factors and Supports During Reading Recovery^{TM}

Program Factors (n=12)	Results
Mean number of lessons to complete program	50
Mean number of lessons missed during the program	14
Mean number of weeks of participants	13
Mean Reading Level at the start of program	3
Mean Reading Level at the end of program	21
Mean number of books used per reading level during the program	3
Mean percentage of consistent homework completion	94

Other Supports During Reading Recovery^{TM} Intervention	Percentage
Reading Buddy	●ᵃ
Remedial Support	8%
Speech Language Pathology Support	8%
Special Education Support	●
No Support	83%

ᵃ   no intervention required

Table 16

Mean Percentage of Improvement in Attendance and Attitude Before and After
Reading Recovery[TM]

Student Background Information (n=12)	Very Poor	Poor	Moderate	Good	Excellent
Attendance at school during R.R. [TM]	●[a]	●	●	17	83
Attitude Before Reading Recovery[TM]					
Toward reading	●	17	50	25	8
Toward writing	●	42	33	25	●
Attitude After Reading Recovery[TM]					
Toward reading	●	●	●	17	83
Toward writing	●	●	●	25	75

[a] ● no response indicated

Table 17

Summary of Intervention Required During the Two-Year Study Period

Intervention	Treatment Group (n=12)	Reference Group (n=12)	Comparison Group (n=12)
No Intervention	100%	100%	41%
Special Education	●[a]	●	17%
ESL	●	●	●
Private Tutor	●	●	●
Student Assistant	●	●	●
Speech Language	●	●	8%
Remedial Reading	●	●	58%

[a] ● no response indicated

Table 18

Mean Percentage of Classroom Teaching Methods

Classroom Methods (n=22)	Never	Occasionally	Monthly	Weekly	Daily
Read to your class orally	•*			9%	91%
Book Introduction/discussion	•	5%		27%	68%
Discussion after the story	•	•		27%	73%
Engage in shared reading	•	•	14%	41%	45%
Assign practice of familiar reading	•	•	5%	31%	64%
Provide personal reading time	•	•	5%	32%	68%
Instruct reading strategies (meaning, structure and visual)	5%	5%	5%	18%	72%
Reading Buddies	•	9%	9%	32%	50%
Use of open ended activities (plays, re-telling puppet shows)	•	14%	18%	23%	45%
Use flashcards, word cards, and games	9%	36%	18%	32%	5%
Use phonics drills, tapes, and sheets	14%	36%	23%	9%	18%
Guided reading techniques	•	27%	•	50%	23%
Workbook activities	9%	32%	18%	36%	5%
Listen to children read aloud	•	5%	5%	22%	73%
Write answers to reading questions	•	18%	23%	36%	14%
Teach vocabulary prior to reading	•	18%	9%	18%	55%

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Table 18 (continued)

Model reading/writing for the class	5%	•	9%	27%	59%
Provide writing time	•	•	•	27%	73%
Time for the students to share writing	•	•	18%	41%	41%
Correct punctuation, capitalization, editing	•	•	9%	55%	36%
Display writing	•	5%	23%	36%	36%

• Indicates no response made by classroom teachers

Table 19

Description of Classroom Practices and Effects of Reading and Writing Instruction

Classroom Reading And Writing Practices	Kindergarten	Grade 1	Grade 2	Grade 3
Percentage of students choosing to read	40%	78%	79%	68%
Percentage of students choosing to write	42%	58%	51%	56%
Average minutes of reading time provided per day	94	115	108	80
Average minutes of writing time provided per day	71	100	90	52

Table 20

Mean Percentage of Factors Related to Classroom Teachers

Factors Related to Classroom Teachers (n=22)	Percentage
Classroom Teacher Characteristics	
0-5 years experience	14%
6-10 years experience	32%
11-15 years experience	32%
16-20 years experience	14%
21-25 years experience	14%
26-30+ years experience	23%
Mean combined experience of teachers	*(16 years)*
Participated in staff development in reading/writing	73%
Impacted reading/writing instruction	41%
Observed a R R.[TM] lesson	73%
Attended a R R.[TM] training session	64%
Have you had students in R R.[TM]	100%
Teacher Attitudes and Perceptions of Reading Recovery	**Percentage**
R R.[TM] had a positive effect on reading program	91%[a]
R R.[TM] had a negative effect on reading program	●[a]
R R.[TM] had a positive effect on teaching and instructional style	91%[a]
R R.[TM] had a negative effect on teaching and instructional style	●
R R.[TM] has impacted your school environment	100%

[a]   ● two surveys did not respond due to lack of experience with the program

Table 21

Mean Percentage of Responses by Classroom Teachers Rating Reading Recovery [TM]

Reading Recovery [TM] Rated By Classroom Teachers (n=22)	Percentage
Very familiar with principles R.R. [TM]	64%
Somewhat familiar with principles of R.R. [TM]	32%
Uncertain with principles of R.R. [TM]	2%
Not very familiar with principles of R.R. [TM]	● [a]
Not at all familiar with principles of R.R. [TM]	●
Invaluable as an early intervention program	91%
Somewhat invaluable as an early intervention program	9%
Uncertain of valuabilty as an early intervention program	●
Of little value as an early intervention program	●
Of no value as an early intervention program	●
Very familiar with guidelines R.R. [TM]	77%
Somewhat familiar with guidelines of R.R. [TM]	9%
Uncertain with guidelines of R.R. [TM]	14%
Not very familiar with guidelines of R.R. [TM]	●
Not at all familiar with guidelines of R.R. [TM]	●

[a]   ● no responses by classroom teachers

Table 22

Description of Teaching Factors Related to Reading Recovery [TM] Teachers

Background Information (n=11)	Years
Number of years teaching at the primary level	18
How long introduced to R.R. [TM]	5
How long teaching R.R. [TM]	3.5

Other Teaching Responsibilities With R.R.	Percentage
None	18%
Kindergarten	27%
Grade 1	27%
Grade 2	9%
Grade 3	18%
Grade 4	9%
Grade 5	•[a]
Grade 6	•
Junior High	•
High School	9%
Special Education	27%
Principal	9%

How R.R. [TM] Teachers Were Introduced To R.R.	Percentage
School Principal	27%
R.R. [TM] Teacher	36%
R.R. [TM] Teacher Leader	45%
Other colleagues with the Labrador School Board	64%
In-service session	73%
Through personal research and study	9%
Program was implemented in the school	55%

Table 22 (continued)

Why R.R. ™ Teachers Became Involved With The Program	Percentage
Opportunity to provide support to students	100%
To enhance personal professional development	91%
Seen and heard about the results within the Labrador School Board	55%
Heard about the results elsewhere	18%
Recommended by the school principal or school board members	27%

Impact of R.R. ™ On Teaching and Instructional Practices	Percentage
Yes	91%
No	●[a]
N/A	9%

[a] ● no response by the participants

Table 23

Mean Percentage of School Administrators Responses Describing Reading Recovery [TM] Implementation

Administration Factors (n=11)	Percentage
Administer Characteristics	
Observed a Reading Recovery [TM] lesson	73%
Attended a Reading Recovery [TM] training session	9%
Reason for School Selection of Reading Recovery [TM]	
Student need; opportunity to provide additional support	45%
Perceived need by staff	45%
Brought to my attention by teacher/colleague outside the school	27%
Suggested by the Director of Education	55%
Have read about the program/studied about program effectiveness	●[a]
Reading Recovery was in the school when I arrived	27%
A Trained Reading Recovery [TM] teacher	9%

Effects of Reading Recovery [TM] with School Implementation	Percentage
Decreased retention rates	73%
Decreased special education numbers in the primary	73%
Increased retention rates	●
Higher special education numbers in the primary	●
Increased referral rates	●
Lower referral rates	73%
No change in retention rates	●
No change in referral rates	●
No change in the number of children requiring special education services	●
No Response	27%

[a]   ● no response made by school administrators

Table 24

Mean Percentage of Responses by School Administrators Rating Reading Recovery ™

Reading Recovery ™ Rated By Administrators (n=11)	Percentage
Very familiar with principles R.R. ™	36%
Somewhat familiar with principles of R.R. ™	54%
Uncertain with principles of R.R. ™	•ᵃ
Not very familiar with principles of R.R. ™	•
Not at all familiar with principles of R.R. ™	9%
Invaluable as an early intervention program	64%
Somewhat invaluable as an early intervention program	36%
Uncertain of valuabilty as an early intervention program	•
Of little value as an early intervention program	•
Of no value as an early intervention program	•
Very familiar with guidelines R.R. ™	27%
Somewhat familiar with guidelines of R.R. ™	55%
Uncertain with guidelines of R.R. ™	•
Not very familiar with guidelines of R.R. ™	9%
Not at all familiar with guidelines of R.R. ™	9%
Invaluable: representing staff attitudes towards R.R. ™	55%
Somewhat invaluable representing staff attitudes towards R.R. ™	27%
Uncertain: representing staff attitudes towards R.R. ™	9%
Of little value: representing staff attitudes towards R.R. ™	•
Of no value: Of little value: representing staff attitudes towards R.R. ™	•

ᵃ   • no response by participants for this factor

Table 25

Perceptions of School Administrators on Students, Teachers and Parents

Administrators Perception of Impact of R. R. ™ (n=11)	High Negative	Negative	No Impact	Positive	High Positive
Th: students receiving R. R. ™	●*	●	●	27%	73%
Th: teachers providing R. R. ™	●	●	●	18%	81%
Regular classroom first grade teachers	●	●	●	55%	45%
Your staff attitude toward professional development	9%	●	19%	73%	9%
Parents views and attitudes	●	●	19%	36%	55%

● Indicates no response by school administrators

Table 26

Mean Percentage of Parental Involvement as Rated by Classroom Teachers

Perception of Parental Involvement(n=22)	Percentage
No visible effects	5%
Increased interest	89%
No change; always supportive	5%
No change; little support	16%
Parents a strong advocate	74%
Parents strongly opposed	5%

Table 27

Mean Number of Days Identified by Contributing Factors for Loss of Reading Recovery [TM] Instruction

Contributing Factors (n=12)	Days
Mean number of lessons missed per child (one lesson per day)	13
Child absent	3
R.R. [TM] teacher absent	8
School event	3
Holiday	4
Weather	11

APPENDIX E

Questionnaire Responses

Questionnaire For Classroom Teachers

Responses

Comments on Question # 7

Based on your knowledge of Reading Recovery[TM], how would you rate the Reading
Recovery program as an early intervention program?

Responses

- We are very lucky to have this program. It should be available to every
  school.

- I am totally amazed at the level of reading and writing strategies the children
  have when they come to grade two.

- If it were not for this program, and the effort put in to it by the Reading
  Recovery[TM] teachers, primary students would have a great deal of difficulty
  learning to read at an grade appropriate reading level. This program has
  increased the confidence level of students I have taught.

- A valuable program yes, but I do believe any program using appropriate
  learning materials, well trained teachers, providing intensive one on one
  intervention accompanied by home support would achieve similar rates of
  success.

- For the successful children who complete Reading Recovery[TM], their
  confidence level soars and their overall school performance improves.

- I was a Reading Recovery™ teacher for 5 years ad have had grade one in y multi age class for 5 years. Reading Recovery™ has given the gift of reading to countless children who would have been illiterate without it.

- I was a Reading Recovery™ teacher for two years. Fantastic program!

- Students are given a chance for one on one help with both reading and writing skills, all students need this chance at the primary level.

- Students presently in grade three that were Reading Recovery™ students are doing fine in Language. Previously, students in grade three or four with no Reading Recovery™ intervention were slower to progress.

- Children with difficulty learn best with one on one intervention.

- I'm always amazed how the children learn their strategies and use them so well. However, home support certainly plays an important part here as well.

- There's nothing I've ever seen work as well.

- I have children in my room who have gone through the program. They are working well with the grade 2 program.

- Some students still have a bad attitude towards school even after they have completed this program. Their reading skills deteriorate sometimes as a result.

- Children with reading difficulties need to have intervention early before major problems occur (academically/behaviorally/emotionally).

- I have worked with a number of children who have been in the Reading Recovery program and they have developed many skills that the other children do not have.

- Reading Recovery ensures that at risk students work to the best of their abilities and it gives them a chance to learn the writing and reading skills they will need in school.

- The Reading Recovery program allows children to become better independent readers and writers. They learn different learning strategies resulting in a higher level of confidence and greater interest in learning to read and write.

- Many of my grade one students that have been in Reading Recovery have made great progress, while some have, in fact, exceeded the 'average' of the class. The only unfortunate thing about the program is that the program is not meant for every child and therefore, not everyone's needs can be met.

- The Reading Recovery program focus on many important strategies that all teachers should be aware of and should be using in the classroom.

- I'm Reading Recovery trained.

Comments on Question #9

Based on your knowledge of Reading Recovery™, how would you rate the underlying principles of Reading Recovery™ in terms of compatibility with the reading and writing instruction provided in your classroom?

Responses

- I find it can be as compatible as I want it to be.

- I try to incorporate my classroom instruction such that it parallels Reading Recovery™ to the extent of my knowledge of the program (i.e. The new

language program Nelson Language arts Grade two, parallels Reading Recovery™ in many ways. This reinforces Reading Recovery™ methods and practices.

- I try to use similar techniques/those appropriate for my student's ability level as far as teaching a room full of students will allow.

- Each child doesn't get one on one daily but during the week each child does. We read and write daily. I introduce a variety of literary sources such as poetry reading charts etc...

- I try to give all of the children in my class the skills, which Reading Recovery™ has shown me that they need to be good readers.

- My classroom teaching changed because of my involvement with Reading Recovery™.

- I am using the strategies I have learned through Reading Recovery™ however, I cannot give the one on one to each student.

- I use Reading Recovery™ principles in my teaching on a daily basis.

- The strategies used in Reading Recovery are the ones I use to teach reading and writing. However, time restraints and class size doesn't allow to do much one on one teaching.

- Strategies and techniques transferable.

- I have tried to utilize many of the principles of Reading Recovery in my classroom and find that they work very well with all children.

- Since I have become a Reading Recovery teacher I use the principles of Reading Recovery in my regular classroom.

- The Reading Recovery principles are consistent with my teaching instructions. Reading Recovery students build upon their knowledge of reading and writing.

- Although Reading Recovery boasts a more rigid program, some of the strategies, techniques and ideas used in my class are consistent with those of Reading Recovery.

- I try to use what I am aware of.

- I say very compatible, but I think some things need to be different in a grade 3 classroom. The underlying principles are compatible.

Comments on Question #11

Has Reading Recovery™ had any positive effect on your reading program?

Responses

- It has helped children increase their reading ability greatly.

- Children who complete the program are more interested in literature and are very eager to participate in all reading activities (i.e. homeroom; oral reading; buddy reading; independent reading).

- It has helped me to incorporated many of its principles into my teaching, as well as using running records etc…

- More children can handle the program.

- We are trying to raise a generation of readers in our school.

- It introduced me to all the great series of books, which I now use in my room.

- Students progress well in the regular language arts program.

- I've learned from my colleagues how to do running records and what strategies to teach.

- I'm better at individualized instruction and in guided reading instruction as well as modeling writing and teaching CAP.

- It has given me insight on how to improve my reaching of reading.

- Some students have kept up their reading levels and even improved.

- I feel that I have become a better observer and have made better use of Reading Recovery principles.

- Students learn to focus more on reading and writing by using the principles of Reading Recovery.

- Reading Recovery students are better able to cope with the regular program. They are less stressed and share an overall positive outlook on learning. The classroom teacher receives students who are better able to function on a grade 1 level.

- Some of the children that have been discontinued from Reading Recovery have a very strong `voice` and will often lead the group in a reading session. I will often look to them to maintain and keep the group moving.

- I have learned a lot of good teaching strategies from Reading Recovery.

- I stress meaning, fluency and phrasing much more.

Comments on Question #12

Has Reading Recovery™ had any negative effect on your reading program?

Responses

- Although Reading Recovery™ has influenced parents positively, a number of children who are weak have siblings who have gone through the program. Parents seem to expect later children to follow the same path.

Comments on Question #13

Has Reading Recovery™ had any positive effect on your own teaching and instructional style?

Responses

- Yes, I am aware of the reading levels and use some of their techniques in my teaching.

- Children are more enthusiastic about learning and this makes instruction to children easier because they have better comprehension of concepts taught and are more willing to participate in reading and writing because they feel more confident and capable. Also, children share more in activities especially if it involves reading. Furthermore, I permit them to share in any writing that we may have to do in a group.

- I use whatever strategies I can to enhance my students learning and Reading Recovery™ strategies are incorporated into my teaching methods.

- I can modify some of the ideas to use in my classroom or with individual students.

- I have been taught how to help children be successful readers.

- I have a better understanding of how children learn to read and write. My whole way of teaching has changed.

- I feel I've become a more competent teacher.

- Better at use of Big Books to teach CAP. Better at HRSIW instruction.

- It has given me insight on how to improve my teaching of reading.

- I feel that it has helped me become a better Reading teacher.

- It has taught me how young children learn to read and write and ways to ensure that students have success learning.

- Reading Recovery provides one-on-one experience with the student. Classroom teachers would love to experience such opportunities but it isn't possible. Because of the success that Reading Recovery provides, I have approached my teaching using a guided reading approach. This approach allows a teacher to work with 4 or 5 students working at the same level. I have used some of the Reading Recovery strategies and students are gaining more success.

- Reading Recovery has made me more aware of the reading and writing process and the different strategies children can use while reading and writing.

- I have learned a lot of good teaching strategies from Reading Recovery.

- I try to devise reading and writing activities that are more interrelated with emphasis on meaning.

Comments on Question #15

Has Reading Recovery™ impacted your school environment?

Responses

- Yes, at school and as well at home. It has certainly made the transition from grade one to another much more comfortable because all teachers in primary are basically following the same principles, etc…

- Children who learn to read through Reading Recovery™ are caught at a young age. This restores their interest in school, thus enjoying it mote. Morale is higher for these kids, thus, making teaching them more interesting and fun. Student's confidence level is visibly higher. They express an interest in literature, which otherwise they might not.

- More children are receiving intensive programming at age 6.

- It's had a relatively positive impact although there have been some concerns about the way it has been implemented.

- We are making a big difference in children's academic success by using early intervention.

- The whole school has become immersed in reading and good books.

- More children are successful with both reading and writing.

- It has helped a lot of children in our school but a lot of needs are still not met (sad) in our school.

- Students as a whole are going farther in reading and writing – monitoring is supportive - more staff aware of strategies.

- Every struggling reader has parents who want them to participate. The program can only help so many.

- More positive towards learning to read.

- Has made most Primary teachers become more focused on reading instruction in their classrooms.

- A lot more students are experiencing success at school.

- When students are learning to become better independent readers and writers, everyone is affected. Teachers can teach for the average student (little remedial is needed). Positive attitudes towards learning will be felt throughout the school.

- We have had 30 children graduate from the program to date. There is an increased awareness of Reading Recovery in our school. The discontinued children are very proud that they have finished the program and that they are now 'readers'.

- Most teachers have become aware of the effectiveness of the program and at younger grades are effectively working with items such as those of CAP.

Comments on Question #16

What effects has Reading Recovery™ had on parental involvement overall?

Responses

- Parents are more aware of the importance of early reading and taking a more active role in helping their child begin reading.

- I don't think parents overall brag enough about it.

- Different parents react differently.

- Parents of students involved are 99% supportive.

- Depending on the Parent/student that is involved, we will notice an increase in support. Parents are aware of the benefits the Reading Recovery program gives a child. Some parents still need encouragement when it comes to guiding their children's learning.

Comments on Question #17

Please identify any challenges you have experienced while teaching children of multi-cultural backgrounds how to read and write. Please explain.

Responses

- Difficult for children at first. The few children I have had over the years have done well. They seem to pick up language and customs very well in Kindergarten and grade one level.

- Lack of parental support at home for reasons such as little education themselves; numerous children in the family to help do homework; language barriers such as Inuktitut and Innu languages spoken at home.

- Students can be migrational tending to move around the coast of Labrador and tend to expend traditions such as going up the bay until freeze up or break up. They can be away on time for weeks.

- Parents not purchasing necessary school text books in a reasonable time frame in the school year. (i.e. 2-3 months have passed and the child's textbooks bought.

- Language and communications barriers add to the challenges.

- Home environment plays a key role in determining a child's success rate- this includes cultural values specifically towards education.

- It is difficult to assess a child's ability when the child's first language is not the first language of the school.

- Language barriers ids the greatest challenge especially if the child's parents do not speak English

- Attitudes towards literacy in general may not be positive or important.

- The biggest challenge is their inexperience with book language and the low level of their own vocabulary. In the early stages you need to make a lot of books available using familiar pictures and photos so that they can experience success.

- One of my main challenges is often not having cooperation from the home. One year I had to find several of my students older reading buddies after school to practice reading.

- Some students do not have a background of reading: being read to, reading books. These students find it challenging in language areas and it had been challenging to find ways to get these students involved and progressing to their full potential.

- Lack of background information and language skills.

- One of the biggest challenges in teaching a child to read and write is when they come from a background of not being read to as a child and they get none or very little support with the books which the children take home each

night. Also, when the home has no routines established, eg. Bedtime, homework time, bedtime stories. This makes the rate of learning a slow process.

- Lack of similarity in grammatical structures – concepts for Innu children.

- Learning problems as a result of home or environment or culture.

- Some students are E.I.S.L. and this is quite a challenge.

- Finding material that they can relate to (i.e. pictures of people that they resemble). Finding age appropriate reading material.

- Teaching children of multicultural backgrounds has been quite a challenge. Some students lack confidences in their verbal expressions. They talk in short sentences. Their written grammar needs constant editing. These children are often very shy and need encouragement to express their opinions.

- I find that with every passing year, the children that enter grade one are more and more 'immature'. They seem to have less focus, a short attention span, and bring less basic concept knowledge to the classroom. This obviously makes them harder to 'reach' in the classroom.

- Although many of the parents of the Reading Recovery children in my class have been mostly supportive, there still remains some limited parental support on the part of some parents in my classroom. This, therefore, makes it difficult for reading and writing practices taught at school to be supported at home. Inevitably, this affects the education of the child!!

Additional Comments

- I wish that all students were exposed to this one-on one program.

- The only problem with Reading Recovery™ in our school is the high
  percentage of children who need it. We draw from a population that is high
  in parental illiteracy and low income. We do no have the enough teaching
  units to meet the need and in trying to free up people for Reading
  Recovery™ we have to overload others. Although I am not actively teaching
  Reading Recovery™, I am so grateful for the skills it has given me in my
  teaching of young children to read and write. All primary teachers should be
  Reading Recovery™ trained. This province needs to embrace Reading
  Recovery™ put the resources in place and thus, make our province a leader
  in literacy.

- The New Language Arts program brought in by the Department in September
  of "99" for Grades ½ has many of the principles of the Reading Recovery
  program. I feel this will be a valuable asset to the teaching of reading and
  writing in the primary classroom.

- The Reading Recovery program is one of the best programs I have
  encountered. I see positive results; independent readers and writers, stronger
  confidences, and less stress. Way to go, Bravo!

Questionnaire For School Administrators

Comments on Question #1

Why did you select Reading Recovery™ for your school?

Responses

- Labrador School Board funded project to improve reading literacy.

- I am Reading Recovery™ trained and see the benefits every day.

Comments on Question #3

What views have parents expressed about Reading Recovery™?

Responses

- Parents of children in the program have seen a significant improvement in their child's reading.

- Seem to like the idea that it may help their children read better, especially if they appeared to be in trouble with reading.

- A number of parents have expressed the fact that their child is now reading as a result of this program.

- Very pleased their child has not fallen through the cracks in the school system.

- The comment a parent had made is, "I didn't even know my child was a part of the program".

- Most very supportive: Some don't seem to care about education in general so attitude to Reading Recovery™ is the same.

- Parents feel it's a worthwhile project.

- Impressed by the degree of improvement in their child's reading ability.

- Most very positive and supportive. Some positive but not supportive.

Comments on Question #10

What effects has Reading Recovery™ had on your school since its implementation.

Responses

- General improvement in early literacy less remedial required. Reading problems more clearly defined.

- A good screening for determining students who absolutely require special education services.

- As an administrator it is difficult to check the decrease and the increase in retention rates.

- It has provided us with a means of identifying those children who we would wonder whether they were Special Ed. or not.

Comments on Question #11

If there were no changes in the number of children requiring special services in your primary area, please explain.

Responses

- No information was given to me.

Comments on Question #12

If you have any reservations or concerns about the implementation of Reading Recovery™ in your school, please explain.

Responses

- Increased workload for Reading Recovery™ teachers can tend to burn them out since they shared duties

- Having adequate staff trained to cover the numbers without taxing the teaching resources that have to be utilized to support Reading Recovery™.

- Expensive program to operate.

- When implementing this program all staff members must be made aware of what is involved in the program and what is expected of the staff that are not directly involved in the implementation. Communication within the school of what is happening in the program and to be most effective everyone needs to be on side.

- My only concern is hopefully it will always continue.

- I like to see the parents more informed and involved about the program. Also, advertise about the student through the community when completed the program.

- In the past we have not provided enough coverage for the number of students that we have in grade 1.

Additional Comments

- Excellent program.

- Reading Recovery[TM] is a very positive step in the process of making a child a more fluent reader. A positive experience for both student and teacher.

- Another effort to address reading problems at the school. Early intervention is very important.

- I'm pleased with the program. I do feel the province should be placing Reading Recovery[TM] teacher in each school. All primary teachers should be given an in-service on the skills in Reading Recovery[TM].

Questionnaire for Reading Recovery™ Teachers

Comments on Question #8

Why did you get involved in Reading Recovery™ ?

Responses

- Teacher Leader approached me – she thought I'd be an asset – appealed to my sense of duty.

- Saw a way to help children that over the past years I was not able to help. These children who had left my classroom as non-readers could be helped by this program and I wanted to try.

- I felt Reading Recovery™ could help some of our students that resource was not for. I am a firm believer in early intervention.

Comments on Question #9

Has Reading Recovery™ impacted your instructional practices in other areas?

Responses

- It has taught me exactly how young children learn to read and I have used the techniques and strategies of Reading Recovery™ in my classroom to help those students who need the extra help.

- My whole approach to Language has increased my expectations for Kindergarten and Grade 1 students.

- Classroom – do Reading Recovery™ on students regularly; use guided reading teaching Reading Recovery™ strategies; concentrate on CAP during Big Book shared read; use HRSIW technique in all writing expectations.

- I have used various Reading Recovery™ strategies and practices with my primary resource children (special needs). These children are usually weak in the language arts areas. I also use the observation survey with these students.

- I do a much better job teaching reading in my regular Kindergarten and grade 1 class. The children in my regular classes are reading better than they did before I received Reading Recovery™ training.

- I see new ways to present the kindergarten progress.

- I use what I have learned in all my teaching. Reading Recovery™ instructional sentences are good teaching sentences that are applicable at all levels in Special Ed.

- Some of the Reading Recovery™ strategies are used in the classroom.

- It has made me more aware of how children look at print and the language of books. It has shown me more effective ways of helping children to draw on their own knowledge and experiences to help them in their reading.

- I now understand that reading and writing must go together. Reading and writing is not a sequence of prearranged steps, but a process which simultaneously looks at meaning, structure, and visual information.

<u>Comments on Question #10</u>

Please identify any challenges you have experienced while teaching children of multi-cultural backgrounds how to read and write.

<u>Responses</u>

- Innu children (ESL) – interesting grammatical structure differences; lack of basic English vocabulary; different language structures.

- The structure of their language is quite different. They tend to write as they speak, leaving out "joiner" words (to, and, the, etc.). These children are usually quieter in the classroom, not participating in discussions very often. Their concept development is weak – i.e., They confuse truck and car because we assume they know are not know (tractor, cherry, giraffe, supermarket, etc.). A lot of these children are not exposed to print before entering school. They are not read to, not stimulated and not talked to in a conversation type way.

- I sometimes have to teach such children and I find they do not have the concepts that would help them to search out a correct response. They also have problems constructing a grammatically correct English sentence. A lot of pronouns and endings are not present in their language and cause them difficulty when trying to read English.

- I have found that the children I work with often do not bring world and concept knowledge to reading and an immature oral language interferes with writing structures. Also, lack of home support impedes acceleration of student growth.

- At our school we have a very varied clientele, foreign military descendants, Innu and Inuit descent children, and Canadian military personnel from all over Canada. We have had all these children in the program and they have all done well. Some of these children (Innu and Inuit) lacked background experience but once supplied, they did very well. Foreign children had problems with sound/symbols but this was overcome also. We also had children with speech problems and it worked out.

- Of course, sometimes the big challenge is often the language barrier and helping them make the connection between what they read and their own life experiences and backgrounds

- Students with limited personal experiences, knowledge of the world, and use of language often find learning to read and write more difficult. The home has not always been supportive consistently of reading and writing efforts.

APPENDIX F

Report by Director of Education: Mr. Cal Patey

Reading Recovery in Labrador
Thesis Project

Report Questions and Responses

To be used with the Director of Education
The Labrador School Board

1. How did you first learn about Reading Recovery^{TM}?

    Articles in a Journal – "*The Reading Teacher*" I believe.

2. What factors initiated you to seek more information about implementing this
    particular reading program in your school district?

    I was working as the program coordinator for language arts and was aware of
    students with reading difficulties and the need to intervene on their behalf.

3. How was the decision made to try Reading Recovery^{TM} in Labrador?

    J. Hughes, retired teacher, expressed an interest to train. Greg Storey had
    brought Kay Rogers to the district to do an information session. I did
    approve Joan's tuition in advance of board approval.

4. The program is costly in the beginning stages of implementation with training
    a teacher leader and freeing up time for staff to train, materials. What was
    the response from other board members concerning the implementation of the
    program?

    The Labrador School Board has been consistently supportive throughout the
    implementation period.

5. How supportive has the Department of Education been in the implementation
    of the Reading Recovery^{TM} program in your district.

    Department of Education is supportive of literacy initiatives generally.
    Reading Recovery^{TM} is not funded by the province. It is an individual board
    initiative.

6. How successful do you feel this program has been first of all for the students,
    teachers, and the schools in general?

    Overall, a very successful program. We are rapidly reaching a point in time
    when all students requiring the program will have access. As a professional

development program for teachers it is an excellent training model. For schools, it enables class teachers to deliver grade application programs more effectively to more students.

7.   What factors do you attribute to the success of the program?

   • Supportive School Board on all levels of administration.

   • Adequate funding provided by the Labrador School Board.

   • Willingness of teachers and administrators to make changes in attitudes and organization of schools.

   • Effective training model and professional development provided by Teacher Leaders.

8.   How do you feel the government of Newfoundland and Labrador can help in the implementation of Reading Recovery^{TM} not just in Labrador, but also within our province as a whole.

   Government can fund a number of literacy initiatives directly, of which of Reading Recovery^{TM} can be one.

9.   What was your goal initially in implementing of Reading Recovery^{TM} in Labrador?

   To provide this intervention to all 6 year olds who needed it, to address their language development difficulties and enable them to achieve to the best of their abilities with identified problems corrected where possible.

10.   Do you feel you have reached the outcome desired as of yet?

   No. Not all students have been reached. We are hopeful that during the 2000-2001 school year we will be closer to achieving that goal.

11.   A lot of changes have taken place in five years since "the ball started rolling" so to speak, what are your goals for of Reading Recovery^{TM} in your school district now compared to then?

   The program is moving from an implementation to a maintenance stage. Goals will be to continue with teacher training and financing the program.

12. What challenges are you faced with as the program progresses into the 6th year of implementation?

Funding is always a challenge, however, there are no factors that place this program at risk in our school district.

13. With current changes in reassignment of boards in Labrador, do you see this affecting the continued implementation of Reading Recovery™ in your district?

The transition has been smooth. New schools, have now been integrated into the program and teachers have been trained.

14. The long term effects of any program takes a while to surface, therefore what long term effects have you seen since the initial implementation?

Students who have had of Reading Recovery™ are monitored and they are generally doing well. The long-term goal is to see these students in an overall improved picture of student achievement throughout our district.

15. What changes do you expect to see in the future not just in your board, but also in Newfoundland regarding literacy?

Literacy initiatives are gaining prominence on the province agenda and that is good as funding will be more readily available and a climate will develop whereby all literacy initiatives will be supported.

16. How supportive have school administrators been in the implementation of Reading Recovery™ at the school level?

Very supportive. Initially everyone had to be made aware that of Reading Recovery™ was a long-term initiative. New initiatives need time to develop and flourish.

17. How successful will of Reading Recovery™ be if there is no support from administrators and staff?

Little survives without support, and of Reading Recovery™ is no exception. A program initiative such as this one needs to reach a critical mass in an organization such that there will be enough advocates to ensure its continuance.

18. Have you attended any of Reading Recovery^{TM} training sessions since its implementation?

No. I have registered three times for the conference in Toronto but work commitments have forced me to cancel. Maybe next year. Having not attended a training session, but talk with of Reading Recovery^{TM} personnel on a frequent basis.

APPENDIX G

Glossary of Terms

GLOSSARY

The following glossary lists terms and abbreviations that occur in the Chapters,

References and Appendix of this thesis. Many of the terms are unique to the

Reading Recovery™ program and to the conditions employed in this thesis.

Carry-over Students	Students who are progressing in their program but did not meet discontinuing criteria in grade one and have not exceeded the 12-20 week criteria. Their program will be continued in grade two.
Comparison Group	Participants who needed Reading Recovery™ as an early intervention and were unable to access the program in their schools due to lack of trained teachers to meet the needs of all students.
Continuing Contact	In-service training provided after the initial training year
Discontinued	The decision made by teachers to exit a student from the program and is considered to have reached average levels thus, has successfully completed the program.
Easy Level	The reading level determined to be independent for participants in their instruction and learning.
Frustration Level	The reading level determined to be difficult for instruction and learning to take place.
Graded Reading Level	Text reading identified by grade determined by the gradient of difficulty.
Instructional Reading Level	The reading level determined to be the appropriate level that instruction and learning can be best achieved.

Meaningful Information	The use of meaning in a story in errors and self-correction (i.e. house/home).
Observation Survey	The initial and final testing procedure to aid in the selection and discontinuation of students. It contains six measures: Letter Identification, Word Test, Dictation Test, Concepts About Print, Writing Vocabulary Test, Reading Level
Program Children	Students who have received sixty or more lessons or who have been successfully discontinued from the program prior to having received sixty lessons.
R.R. ™	Reading Recovery™
Reference Group	Participants who were achieving at "average" rates and did not require Reading Recovery™ intervention.
Roaming Around the Known	The first two weeks or 20 lessons in the child's program in which the teacher explores the child's known set of information and helps establish a working relationship, and boosts confidence.
Running Records	A systematic notation system of the teacher's observations of the child's processing of new text. Examination of reading strategies and sources of information are analyzed here.
Self Extending System	The development and building of strategies that enables students to become independent learners.
Sources of Information	The use of meaning, structural and visual information in reading that helps student cross check the three sources of information in errors to aid in self-correction.
Structural Information	The use of structural language in errors making and in self-corrections (i.e. a/the).

| Treatment Group | Participants who received Reading Recovery^{TM} as an early intervention in grade one and were successfully discontinued from the program. |
| Visual Information | The use of common visual patterns to other words, or words look similar to known words (right/light) in errors or in self-corrections. |

Treatment Group	Participants who received Reading Recovery[TM] as an early intervention in grade one and were successfully discontinued from the program.
Visual Information	The use of common visual patterns to other words, or words look similar to known words (right/light) in errors or in self-corrections.