IMPLEMENTING EARLY INTERVENTION IN READING AND WRITING IN THE PRIMARY GRADES: ENCOURAGING REFLECTION AND STRATEGIC THINKING

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IMPLEMENTING EARLY INTERVENTION IN READING AND WRITING IN THE PRIMARY GRADES: ENCOURAGING REFLECTION AND STRATEGIC THINKING

by

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ABSTRACT

This internship reports findings on the use of informal assessment in language arts, specifically in a special education setting in the primary grades of one school. Assessment and interventions were carried out on an individual, small group and whole class level. Students' use of metacognitive strategies, especially self-talk, in order to guide students' reading and writing were examined and encouraged. Students showed some improvement in this strategy use, displayed through anecdotal records of self-talk, over the 12 week period of the internship.

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CHAPTER ONE:

INTRODUCTION

The Internship Setting and Experiences

The internship site chosen by the intern was Newtown Elementary School, a school with the Avalon East School Board located in the city of Mount Pearl. Newtown Elementary is a three-stream school which includes kindergarten to grade 6. There is a population of approximately 600 students and 30 teachers.

The current principal and vice-principal of Newtown Elementary have been working cooperatively to minimize reading and writing difficulties in the primary grades. Staff are actively involved in a process in kindergarten whereby students are identified for intensified instruction in reading and writing through a number of informal assessments and teacher observations. Students are identified for alternate instruction by the end of kindergarten and receive remedial or special education help in language arts in grade 1. In grades 2 and 3, they are either assigned to a special education teacher or kept in a remedial reading group. The structure of services fluctuates yearly depending on student need and teaching resources.

This site was chosen as the internship site because of the administrative leadership in early intervention in language arts and the close collaboration between teachers and administrators to achieve the goals of early intervention. In addition, the vice-principal worked as a special education teacher offering a dual perspective along with supervision of the intern.

During the 1996/1997 school year, grade 1 students received remedial instruction

as a whole class. Eleven students were taught together for large blocks of time (1 1/2 hours/day), during which their classmates also received language arts instruction from their classroom teacher. The special education teacher instructed students at that time. The grade 2 students who received remedial help came to the special education teacher for three half-hour periods every six-day cycle. The grade 2 and grade 3 students who are classified as special education students received out-of-class instruction in language arts for 1 1/2 hours each day. The intern worked with all of these groups of students.

In addition to structured language arts instruction, the administrators at Newtown Elementary were attempting to focus on important reading and writing skills such as phonemic awareness and a variety of reading and writing strategies, such as rereading and using contextual cues, which would enhance students' success and independence.

Grade 1 teachers met weekly to plan classroom activities and tended to do the same curriculum topics and activities at the same times. During the school year, 1996-1997, all primary teachers met to discuss strategies to deal with concerns about reading and writing. The intern participated in these meetings as well.

The internship took place during a 12-week period from January to April, 1997.

Goals for the Internship

The intern identified three general goals to be met during the internship. The internship experiences were categorized under one of each of these goals. The internship goals were defined as follows: (a) developing assessment and intervention strategies and

skills while working with students who were having difficulties in reading and writing; (b) learning the types of administrative direction and intervention strategies which are successful in arriving at school-wide reading and writing success; and (c) using a metacognitive framework when working with four students in grades 1, 2 and 3 in order to develop self-reliance, reflective skills, and independent reading and writing strategies. The third goal defined the research component of the internship.

The development of assessment and intervention strategies and skills occurred through a number of activities. The intern learned to assess individual students who were having difficulty in reading and/or writing and were recommended for remedial or special education instruction through the use of informal reading inventories and other informal measures of language ability. Following the assessment process, the intern developed individual instructional activities based on the assessment results and carried out interventions with these students over the period of the internship. In addition, the intern carried out remedial instruction in cooperation with remedial and special education teachers in the regular classroom and with groups of two to four students who were receiving instruction outside of their regular classroom. Finally, the intern reviewed the literacy binder, Literacy development in primary school: A support document for teachers and primary school administrators (1996), prepared for primary teachers by the Avalon Consolidated School Board and reviewed current professional literature to determine appropriate activities for this specialized instruction.

The second goal of the internship was to learn about the types of administrative

direction and intervention strategies which are successful in arriving at school-wide reading and writing success, i.e. How can teachers help students with reading and writing difficulties? What makes teachers reflect on their instruction? The intern attempted to achieve these goals by attending and contributing to grade 1 teachers' weekly planning meetings and attending and contributing to primary teachers' long-term planning meetings for change in language arts instruction. To get a full picture of the school's approach, the intern also planned to interview the principal, the vice-principal and teachers about what they believe works best to bring about reflective practices for teachers and students. The intern kept anecdotal notes on teaching practices which appear to hinder or enhance teachers' reflective behaviour, as well as student progress.

The third goal of the internship encompassed the research component. The intern intended to use a metacognitive framework when working with four students in grades 1, 2 and 3 in order to develop self-reliance, reflective skills, and independent reading and writing strategies. In order to do this, she chose several foci for self-instruction training based on informal assessments. After these areas of emphasis were established, she showed students how to use general self-statements for problem-solving situations that they identify and encouraged them to use these statements while they were working on a problem. The intern also encouraged classroom teachers to reinforce metacognitive strategies within the classrooms of the children who were receiving the individualised instruction. This last activity was only carried out in an informal sense while talking with teachers about the students.

The Research Component

The research methodology for this internship was qualitative. The intern wished to explore the possibilities for self-talk training with primary children and to record their progress and difficulties with the intention of refining such an approach for the classroom. Because of the idiosyncratic nature of the children's responses and progress, such findings would be difficult to quantify. The small sample size and the range of children in the study in terms of age, personality and learning needs precluded the usefulness of statistical analyses to compare the children.

The intern carried out individual informal assessments of four primary students as well as follow-up recommendations and interventions. Students' metacognitive reading and writing progress was recorded through anecdotal records on a daily basis as well as at the beginning and end of the internship period (12 weeks) for comparison to their initial strengths and needs and to the expectations for their grade. The initial assessment and observation period occurred over the first three weeks, during which time permission to work with each student was obtained and the intern sat in on the student's regular classed. The following seven weeks comprised the intervention period and the final two weeks were used for final observations and assessments.

Limitations of the Research Component

It is difficult to compare and contrast the four students in the case studies because they formed a heterogeneous group. Any findings do not represent the behaviours of a

single group but represent a range of students. Due to the small sample size, any results are only generalizable to the participants in the study but may provide insight for other situations. The students were in different grades and of different ages. Generalizations across an age range may be difficult or unsuitable

There was only one researcher, the intern, working with all four students. This may have presented bias that would not be present if there were more than one researcher. At the same time, the researcher discussed individual intervention with supervisors and might have been able, thereby, to reduce the potential of such bias. Also, this study was short in term (i.e. approximately 12 weeks in duration) and, therefore, would not show the kind of results one might expect from longer intervention.

Organization of the Report

Chapter One is intended to introduce the reader to the goals and objectives of the internship as well as give an brief introduction to the research component. Chapter Two includes the literature review for the all of the internship goals (including the research component) and the underlying educational premises for the research component. Chapter Three explains the design and findings of the research component and Chapter Four includes a discussion of the research findings as well as critical reflection upon all of the internship goals and the many events and insights which occurred during the internship.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Throughout this internship, the intern investigated factors which appear to contribute to successful reading and writing instruction, especially in the primary grades. Prior to the internship, the intern identified four conditions which may contribute to students' success in reading and writing. These conditions are based on research presented in the literature review and are selected as conditions which apply to the intern's philosophy of teaching. The four conditions are that: (a) reading and writing intervention should occur early in a student's school life; (b) reading and writing instruction should be focused but also contextualised and personally meaningful to students; (c) reading and writing occurs best in a school where administrators are actively involved in supporting the teaching of reading and writing through professional development and provision of necessary resources; and (d) readers and writers are most successful when they have metacognitive control over their learning and are able to plan, monitor and evaluate their own progress.

The first three conditions apply to the internship in a general sense and the last is directly applicable to the subject of the intern's research. Literature pertaining to the first three will be presented separately from the later presentation of the research literature.

Early Intervention

Students with academic difficulties who are identified and receive additional or individualized instruction early in their school lives stand a better chance of later success. A number of researchers (Lyons, 1989; McCarthy et all, 1995) have shown that focused and intensive early intervention with students who are having difficulties may be effective in preventing the need for labels and special instruction for students later on.

Lyons (1989), using Reading Recovery methods, was able to provide grade 1 students with daily 30 minute individual reading lessons for 12-20 weeks and give them the necessary skills to read on a level with their grade-appropriate peers. Schools which use Reading Recovery or other early reading programs have had similar results (McCarthy, Newby & Recht, 1995; Ross, Smith, Casey & Slavin, 1995). Posno (1982) reported great success with early intervention in reading (grade 1 students) in London, Ontario. Lyon (1996) contends that children need to be identified by the second or third grade or their chances for academic success are limited. Although it is possible for academic difficulties to surface later on in a child's academic life, it appears that many difficulties are obvious from an early age.

Even if there is agreement that early intervention is desirable, researchers and educators disagree about the nature of early intervention. There have been several decades of debate about whether or not phonics-based instruction or sight word learning is most effective for early readers. Recent research seems to point to the necessity for successful readers to have well-developed phonemic awareness (Griffith & Olson, 1992; MacDonald

& Cornwall, 1995). As an alternative to an extreme position which stresses only wholistic language acquisition or a phonics-only approach, a balanced early intervention program can help students with reading and writing difficulties. According to McGuire, Madaus, Litt & Ramirez (1996), an intervention program should stress the use of semantic, syntactic, and graphophonic cues in beginning reading instruction. Otherwise students may become over-reliant on one strategy or may not be exposed to learning situations which suit their style of learning to read and write.

Meaning-Centred Learning

A personally meaningful language context can only contribute to individual students' success. Bizell (1986) and Gage (1986) contend that students create meaning through writing. Proponents of reader response also claim that readers make meaning out of text when they read (Rosenblatt, 1985). The interaction of the student with the text may create meaning which is more than the meaning of the student or the text by themselves (Olson, 1994).

Whole language theory focuses on the student and emphasizes the necessity of understanding the student's individual perspective. Educators can give students individual attention while integrating their interests into their teaching. Whole language also prescribes a contextualised study of language. It allows students to learn in the context of material that is personally meaningful and to learn the strategies and skills of reading and writing within extended pieces of writing rather than through unconnected, generic

exercises. Whole language presents a process approach to writing and reading which allows students to think about writing and to change their ideas as they write.

Within a whole language context, it is necessary to teach strategies, skills and conventions which students will need in order to succeed in a wide range of academic situations. Delpit (1986) contends that extreme applications of whole language theory have led to devastating results for disadvantaged students who need structure and explicit instruction. She recommends that writing skills should be taught "within the context of critical and creative thinking" (p.384).

Many recent studies have focused on the crucial role which phonemic awareness, especially phoneme segmentation and blending, plays in reading development (Clymer, 1996; Gaskins et al, 1996; Griffith & Olson, 1992; MacDonald & Cornwall, 1995; Nation & Hulme, 1997). Phonemic segmentation appears to be a reliable predictor of reading success, especially for early readers (Nation & Hulme, 1997). Nation and Hulme also contend that onset-rime skills do not predict reading success nor do they improve with age and maturity. It is, however, possible to teach phonemic awareness skills in concert with a process approach in order to give children the best of what explicit and contextualized language arts instruction have to offer.

Administrative Support

Individual teachers and researchers may operate in isolation in the implementation of reading and writing instruction. A larger scale of change may occur, however, when

whole schools and school boards work together to implement beliefs and instructional methods. School administrators who have professional experience with the teaching of reading and writing and who read about reading and writing seem best prepared to provide school leadership in these areas (Chance, 1991).

School action plans which include professional development for teachers, parental involvement, enhancement of student attitudes, and resource support are optimal starting places for reading and writing success (Comcowish & Quinn, 1995). Consistency in expectations for reading and writing can only contribute to students' reading and writing achievement.

Research Question: Metacognition in Reading and Writing

Metacognition, thinking about thinking, was treated as a fundamentally desirable goal for students throughout this internship. Throughout the history of metacognitive research, researchers have developed a number of procedures for metacognitive strategy training. It is necessary to examine this body of research and the differential results which occur with different age groups as well as success in both general and more specific circumstances.

Meichenbaum (1977) outlined a five-step approach to self-instruction which many researchers have used and which educators and researchers have applied in a range of situations. The five steps include cognitive modelling, overt external guidance, overt self-guidance, faded, overt self-guidance, and non-verbal self-instruction (Meichenbaum,

1977). Within each step, students may learn to ask themselves the following general questions: (a) What is my problem?, (b) How can I do it?, (c) Am I using my plan?, and (d) How did I do?. The three key ingredients of this approach are planning, monitoring and evaluating.

Researchers following Meichenbaum's general approach have developed more specific prompts which can be applied to reading. Payne and Manning (1992) used self-instructional strategies during whole class basal reader instruction in grade 4 and a second class was used as a control group and did not receive self-instruction lessons. This intervention occurred over an entire school year and was used with all students, regardless of ability or interest.. In addition, the researchers had three primary objectives, (a) to increase students' reading comprehension, (b) to increase students' strategy use, and (c) to improve students' attitudes toward reading. One classroom used self-instructional strategies and the other, the control group, used the teacher-directed question and answer, vocabulary and word skills approach prescribed by the basal reader. The self-instructional process included pre-reading, guided reading, and post-reading stages. This process also required students to be actively responsible participants in their own learning. In this study, students who learned the self-instructional strategies performed significantly higher than the control students on three measures, reading comprehension, attitude toward reading, and reading strategy awareness. The finding that students' attitudes changed is perhaps the most striking because the procedures necessary for self-instruction interrupted the students' reading and forced them to constantly evaluate the text. We might expect

that students would resist such a procedure or at least that it would interfere with their enjoyment of the text. Perhaps the success and involvement that necessarily result from long-term use of this metacognitive process improve students' attitudes toward reading.

It is crucial for teachers to model use of any reflective strategy to their students in order for them to use if effectively. Schmitt and Baumann (1986a) outlined a procedure for teachers to develop a skills-based approach to teaching reading selections. The teacher asks himself/herself WHAT reading skill to teach, WHY teach the reading skills, WHEN to teach the reading skill, and HOW teach the reading skill. Teachers learn to ask themselves questions in the similar self-questioning manner which they teach their students. Meichenbaum (1979) also stressed the value of teachers' verbalizations about their own strategy use when helping students to self-talk. It is key for teachers to model the reflective process for students as well as use it themselves. Researchers (Cartledge & Milbur, 1980; Gaskins et al., 1996; Mahn & Greenwood, 1990; Manning, 1991; Meichenbaum & Asarnow, 1979; Miller 1985; Palinscar & Brown, 1987; Payne & Manning, 1992; Rhodes, 1979; Sullivan, 1981; Wong, 1985) consistently report the improved performance of students who receive metacognitive training. Novice readers tend to be more impulsive or random in their application of strategies than do expert readers who tend to assess a situation and apply and monitor strategies effectively (Palinscar & Brown, 1987). Daugherty and Logan (1996) also contend that self-talk is related to creativity. In a study of gifted children, aged five to six years old, and their metacognitive problem-solving, Daugherty and Logan found that task-related speech was

highly correlated with creativity measures and also concluded that these children internalize private speech earlier on than other children.

Many highly successful readers may not be aware explicitly of the strategies they use. However, the ability to plan one's reading activities, to anticipate difficulties, to monitor successes and errors, and to change course mid-stream, appears to be crucial to successful strategy use (Manning, White & Daugherty, 1994; Brown, 1980). It is not clear whether or not explicit awareness of strategy use would enhance strategy use although one would expect that explicit awareness would give the reader greater control.

Short-term strategy teaching appears to diminish this difficulty, however. Manning's (1988) study of 1st and 3rd graders with behaviour problems showed a noticeable change in behaviour after only eight one hour sessions of instruction in Meichenbaum's method. An experimental and a control group of students for each grade were assessed on several measures; a locus of control questionnaire, teacher observation and time on task observations. All scores showed a significant improvement, especially the students' ratings of locus of control (rpb=.17 increased to .87). Studies of self-talk training have focused on the elementary, junior high and high school grades although several have also shown success in the primary grades. Miller (1985) has completed a number of studies of elementary students' success with self-instructional strategies for comprehension monitoring. She studied grade 4 students who were average readers. These students received either general self-instruction training, task-specific self-instruction training, task specific didactic instruction, or practice training. Both self-

instructional groups performed better on error detection tasks, while reading a short essay, than the other two groups [$t(40)>3.01$, $p<.05$].

In a later study, Miller (1987), followed a similar procedure to her 1985 study but looked at the differential strategy use of average and above average grade 3 readers. Miller found a significant increase in the use of self-instructional strategies of above average readers [$F(1,23) = 5.27$, $p<.03$] and a positive but non-significant increase in the strategy use of average readers [$F(1,23)=2.96$, $p<.09$]. Experienced readers appear to lack both the knowledge and skills necessary for comprehension monitoring although the length and depth of training may not have been adequate, in Miller's study, to allow the poorer readers' to acquire error detection skills. This result may also point to the more passive role that less skilled readers take, as well as the greater processing demands of reading and monitoring reading simultaneously. It seems likely that less skilled readers would need more training and more individual reinforcement.

A similar study of poor and good readers in grade 4 by Paris and Myers (1981) also found that poor readers monitored their comprehension less than did good readers. In addition, they and had poorer comprehension and recall scores than did good readers. The researchers explained the poorer readers' difficulty as a problem of strategy application. These readers tended to use decoding strategies when strategies should have been focused toward meaning comprehension goals. In Miller's (1987) study of Grade 3 students, the less skilled readers' verbal ability lessened their understanding of the instructions. A number of them were unable to give an example of the concept, 'opposite', and, therefore,

did not understand how to look for opposite statements in the text.

McGuire and Yewchuk (1996) studied the strategy use of learning disabled gifted students and found that although they evaluated their own progress, often they failed to detect errors in text and needed special training to plan and set goals. Kronk (1994), in a study of adolescents' private speech, found that, specifically, a high degree of activity description and self-guidance were related to higher academic task scores.

In 1990, Mahn and Greenwood studied grade 1 students who were reading at a beginning grade 1 instructional level. Students participated for the duration of a five-week unit plan according to the basal reader that all of the classrooms used. The researchers used Meichenbaum's (1977) process, i.e. cognitive modelling, overt external guidance, overt self-guidance, faded, overt self-guidance, and non-verbal self-instruction, and found significant differences between control and experimental groups. In this case, students' success in using self-statements was measured through their performance on basal reading seatwork tasks which involved word recognition, logical sequencing, word choice and decoding of verbs. The students were trained in self-instruction on non-reading tasks but were able to transfer their strategy to reading. The teachers who used the procedure modified the researchers' guiding questions to suit the children's idiosyncratic language.

Studies of the metacognitive processes of primary students are relatively rare. It may be that researchers believe primary students incapable of the reflection and abstract thought necessary for self-questioning and, therefore, do not study them. In one of the few studies of primary children's metacognitive abilities, Rhodes (1979) found that

grade 2 students' traditional reading achievement test scores rose significantly after self-instructional training. Similarly, Sullivan (1981) found that grade 1 students learned to successfully use self-instructional strategies in math and visual discrimination tasks. This latter research did not study reading specifically, although it could be argued that the same strategies could have been used to develop word decoding skills.

Gaskins et al (1996) used a metacognitive self-talk approach to teaching phonemic segmentation skills with grade 1 students and achieved considerable success. They focused on analytical strategy use with relatively simple concepts which were developmentally appropriate for grade 1 children. The thirteen students in the group scored higher than the previous years' students in terms of spelling and reading scores but only the reading scores were significantly higher than the last year's grade 1 class. Roth et al (1996) have studied the metacognitive abilities of primary students and included metasyntactic and metasemantic categories as well. They concluded that metasyntactic ability was an important predictor of reading success although, developmentally, metaphonemic awareness is necessary first.

Parents play a potentially potent role in helping young children to develop metacognitive skills. Martin and Reutzel (1996) studied mothers of children from six months to four years old. The mothers were observed to make three types of scaffolding decisions when reading to their young children: decisions to extend knowledge, decisions to make difficult text easier, and decisions to maintain their child's attention. These decisions appeared to be based upon the mothers' beliefs about their children's

development. It is likely that teachers make similar types of decisions based on the perceived ability of a particular child (Burnett, 1996). It is also possible that children who are perceived as more academically capable receive more enriched and strategic scaffolding than those for whom expectations are lower.

There appear to be few differences in the potential use of self-instructional strategies by primary and elementary students. Both groups can use general and specific self-questioning and both types of questioning improve students' performance on reading tasks, especially those related to reading comprehension. Less research has been carried out with primary groups of children so it is difficult to make firm conclusions at this point. Wong (1985) suggests that it is not the age of student which determines her or his ability to use an inner questioning voice but the student's experience with reading and thinking about reading, as well the appropriateness of the reading task, task difficulty and the extent of the reader's background knowledge. Similarly, Glass (1993) outlined four potential methodological issues which must be considered when analysing students' use of self-talk: the structure of the self-talk, whether or not the self-talk refers to the present or past, the type of response that the student must make, and the nature of the stimulus to which the student is responding. Most studies tend to focus on reading comprehension situations where students are required to detect textual errors. In many cases, researchers are not getting a full picture of the types of problem-solving which students can use. They are tapping a particular academic skill, which requires proficient reading, as well as ignoring situations which might show greater strategy use in a range of situations through

a variety of learning styles.

Brown (1980) points out the special considerations one must make when studying metacognition in young children. Developmentally, young children are often less conscious of their own thoughts than older children and adults, and need more training to develop this consciousness. As well, young children often cannot verbalise the complexity of their behaviours. Their naming of what they do is often inaccurate and unrelated to their actual processes. They are often poor predictors of the strategy they will or do use in a specific situation.

One must realise that other factors may potentially affect one's success with self-instructional strategies. Individuals are capable of both negative and positive self-talk although the latter has been the primary focus of most studies. Manning (1990) found that negative self-talk was negatively correlated with verbal IQ scores and were also positive related to teachers' rating of students. Similarly, Burnett (1996) studied grade 3 to grade 7 students and found that learning disabled students engaged in less positive and more negative self-talk than other students. Also, positive ratings of parents' perceptions were positively related to boys' positive self - talk whereas positive peer perceptions were related to positive self-talk for boys and for girls. Teacher's perceptions were positively related to positive self-talk for girls. This gender difference suggests that students may need different sources of support in order to successfully develop their own positive learning strategies.

When looking at the strategy use of young children who have reading difficulties,

it must be considered that their task is made more difficult because they have difficulty decoding and they have difficulty using reading strategies. At the same time, strategy training for these student may have more potent effects when the time and care are taken for explicit training which gradually increases task difficulty. Notari-Syverson et al (1996) describe a structured preschool program, Mediated Learning Program. This program focuses on problem-solving and the use of models and provides metacognitive stimulation for children who have been enrolled in a program for the gifted. It would be interesting to apply their strategies and approach with a more representative sample of preschoolers.

Potentially, self-questioning can be applied to any subject area where there is problem-solving, especially reading. Decoding and comprehension are necessary in math, science, geography, history, art, and a multitude of other areas. Meichenbaum (1979) suggests that self-questioning could be used as a "cognitive prosthesis" for students in a range of academic situations. It can provide them with the personal scaffold they need to develop academic skills and strategies. General strategies may be useful for all students in personally significant situations.

Much research concludes that self-instructional strategies help children to become more active, independent and reflective learners. Personal experience, background knowledge, and abstract reasoning may influence the speed and degree of success in mastering these strategies. All students, however, may potentially benefit from their use.

CHAPTER THREE

RESEARCH COMPONENT: METACOGNITION IN READING AND WRITING

Statement of Purpose

This research investigated whether or not metacognitive strategy training (especially self-talk training) can enhance the reading and writing development of students with difficulties. The intern considered the effect of developmental factors on strategy use as well as the effect of personality and individual differences on the ability to successfully use metacognitive strategies. Throughout this internship, the intern tried to discover how strategy use could be best tailored to meet individual needs.

Data Collection

The internship began with one week of observation of students in their special education or remedial classes as well as in their regular classrooms. The intern noted students' academic and behavioural patterns in preparation for initial assessment. Observations lasted for 30-60 minutes per student depending on the classroom activity. The four students who would receive one-on-one instruction by the intern were chosen during this period of time. Students were recommended by special education teachers in consultation with classroom teachers. Two grade 1 students who were receiving out of class instruction, one grade 2 student who was part of a grade 2 remedial group, and one grade 3 student who was part of a special education language arts class were chosen for the intern's research. The grade 1 students were chosen because their reading and writing

skills were less developed than their classmates who received special help. They wrote and read very little. The grade 2 student was chosen because he appeared to be having more difficulty reading and writing at a grade-appropriate level than his classmates but also appeared to be very unmotivated in his work. The grade 3 student was chosen because his writing abilities appeared to surpass his special education classmates but he was having much more difficulty with his reading. His self-confidence was quite low and his teachers felt that with a little extra assistance he might be able to leave the special education program.

Following the initial week of observation, the intern carried out informal assessment with each of the four students chosen for research over the first three weeks of the internship while at the same time working with other children towards other internship goals. The intern met with each student for 30-minute sessions three times during a six-day cycle. The time required to complete these assessments depended on the student's availability, student attendance, the student's existing academic abilities and the student's ability to attend to the tasks at hand.

The four students were administered similar assessments where possible. Assessments included self-portraits, reading sight words in isolation and in context, silent reading of longer passages, oral reading of longer passages, and listening comprehension questions after hearing a passage, all of which were contained in the Stieglitz Informal Reading Inventory, 1992. Also administered were a reading attitudes survey (see Appendix A), questions about reading knowledge and writing knowledge (see Appendix

B), phonemic awareness assessment (see Appendix C), the Yopp-Singer Test of Phoneme Segmentation (Yopp & Singer, 1995), and the Rosner Test of Auditory Analysis Skills. Also, the intern administered an individualized word cloze (see Appendix D), an assessment of knowledge of letters and letter-sounds by asking students to form these directly, an assessment of letter formation, a free writing task, a personal goal-setting task (see Appendix E), a writing vocabulary inventory (Clay, 1993, pp.58-60), an informal oral language test (see Appendix F), and an informal story retelling. During these assessments, the intern also noted the student's ability to attend and the non-task conversation between the student and the intern.

Using many ideas from Manning's (1991) cognitive self-instruction model, the intern developed questions to begin the self-talk session. The entire procedure is explained in Appendix G. For the next two weeks, the intern used a series of self-talk tasks to discover the student's preexisting level and type of self-talk, as well as the student's ability to copy self-talk which the intern modelled. Each student received the same type and order of tasks.

The initial activity was a somewhat open-ended discussion. The intern asked the student the following questions, "Have you ever talked to yourself?" The student, when possible, recalled self-talk incidents and the intern recorded these. Usually, unless the student started recalling immediately, the intern recalled a personal, non-academic self-talk incident. The intern prompted the student for more examples and asked for examples from both home and school.

After the initial questioning, the intern introduced the student to the four self-talk questions which would serve as guiding questions for the duration of the research study. They were introduced through the use of a cartoon of a bear planning to build a bird house. Cartledge and Milburn (1980) developed this cartoon and the following two tasks from Meichenbaum's (1977) original model. The four questions were (a) What is my problem?, (b) How can I do it?, (c) Am I using my plan?, and (d) How did I do? These four questions include the planning, monitoring and evaluating components of Meichenbaum's initial self-talk regimen. The intern would then use a personal example to illustrate use of the four self-talk questions.

The third component of the self-talk training include two modelling tasks, colouring shapes and tracing mazes, taken from Cartledge & Milburn (1980). The exact protocol for these activities is included in Appendix H. The purpose of these activities was to model self-talk for the student to copy and, after several repetitions, to have the student model self-talk for the intern.

After these tasks were completed, the student and the intern brainstormed possible academic and social situations where this self-talk might be useful.

During the eight weeks which followed, the intern implemented individualized intervention which used elements of self-talk as a guiding framework and which focused on the student's most prominent needs based on the informal assessment. The intern referred back to the bear cartoon and the four self-talk questions frequently. Any incidences of self-talk or specific strategy use, whether expected or spontaneous, were

recorded by the intern. Classroom and special education teachers were regularly contacted about students' progress and were given the opportunity to suggest possible directions for intervention.

The last three sessions of the internship focused on reassessment of the students' language abilities. Where possible, initial assessments were repeated, especially those directly related to the intended intervention objectives. In addition, the intern administered a reading and writing attitudes survey (see Appendix G) and a self-talk questionnaire (see Appendix H) which the intern developed during the internship. Because of student absenteeism in the week prior to Easter holidays, several of these final assessments were incomplete. The intern returned to the school to complete these after the Easter break, keeping in mind that the time interval may have had an effect on the students' performance. The intern provided the school with a copy of a summary of progress for each student and made recommendations for future instruction both in and out of the regular classroom.

Research Findings

Note: Randomly assigned initials will be utilized to identify the children while maintaining their anonymity.

Student 1: TC

Pre-intervention assessment.

TC is a Grade 1 boy who transferred to Newtown Elementary from a St. John's

inner city school in January, 1997. At that school he received additional support in Language arts in a small group. He is one of two boys in a single parent family. Shortly after arriving at Newtown Elementary, TC started receiving his regular Grade 1 Language arts instruction for 1.5 hours daily in a small group of 11 students. TC received 2 (1 hour) sessions of in-class assistance per 6-day cycle and 3 (30 minute) individual sessions for 4 weeks and 3 (45 minute) sessions of individual assistance for 4 weeks.

Pre-intervention assessment information about TC is summarized in Table 1. The intern provided TC with a slightly different intervention program from that of the other three students based on his teacher's request and his extreme difficulty with any activities related to reading and writing. The intern began in-class support with TC for two one-hour periods in a six-day cycle. His teacher did not want him to always leave the classroom for help and his needs appeared to surpass those of the other students with whom the intern worked. Also, because of his great difficulties, the intern did not attempt many initial informal reading and writing assessments with TC.

Initially, TC could read and write very little, but did have more age and grade-appropriate auditory and listening skills. He had a negative attitude towards most school work and had difficulty concentrating independently for any period of time. A table of TC's strengths and needs was devised in consultation with his teachers following this period of informal assessment (see Table 2).

Table 1

Summary of Pre- and Post-Intervention Assessment for Student #1:TC

Pre-intervention Assessment	Post-intervention Assessment (TC was absent for much of this time period and uncooperative when he returned to school)
Reading	Reading
* frequently refers to own inability to read or to learn to read	* desire/willingness to read fluctuates daily
* can visually discriminate when words are similar	* can identify 5-10 words by sight
* can identify own name, 'yes' 'no' by sight	* would not read selected passages during final assessment
	* uses picture cues and repeated sentence patterns consistently
	* sometimes uses initial sound-letter cues

(Table continues)

Table 1 *(continued)*

Writing	Writing
* can write own name, 'yes', 'no'	* refused to participate in final free writing activity
* can devise topic for writing but needs much encouragement	* could form most lower case letters and write initial word letters but needed help to form entire words and sentences
* likes to write about summer activities such as bike riding	
* can sometimes identify letter if teacher segments word sounds	
* can identify 5/20 consonant sounds	
* can write approximately half of lower case letters	

(Table continues)

Table 1 *(continued)*

Listening	Listening
* easily distracted in instructional situations or during seatwork * brief retellings are more dependent on illustrations than on text * listens attentively when stories are read * uses pronoun referents in vague manner (ILT) * can answer literal questions about text read aloud (Stieglitz)	* no final informal assessments completed * sometimes trouble attending in class but more focused than previously
Speaking	Speaking
* speaks in a low voice and in short, simple sentences * requires prompts to elaborate * when called upon (response to raised hand) doesn't have response ready * takes turns	* no informal final assessments completed * still not prepared with response in class but continues to raise hand to volunteer

(Table continues)

Phonemic Awareness	Phonemic Awareness
* can differentiate same and different sounding words (PAT)	* could define and identify rhyming pairs of words
* can isolate some initial and ending sounds (PAT)	* refused to attempt to identify final phonemes in words
* no awareness of rhyme (PAT)	* later assessment - could identify individual phonemes and separate words into onset and rime
* difficulty leaving out or changing parts of words (Rosner)	
Attitudes/Work Habits	Attitudes/Work Habits
* likes to work individually with teacher	* resists individual work when it appears more challenging
* needs constant reinforcement to continue working	* less frequently complains about inabilities
* constantly seeks help by saying, "Can you help me?" or "I don't know how!"	* tires easily
* tires easily	
* responds best in game situation	
* attempts to make friends/socialize	

(Table continues)

Metacognitive Awareness	Metacognitive Awareness
* little awareness of what he needs to do to read except ask Mom for help	* refused to or couldn't answer direct questions about self-talk procedure
* demonstrates little awareness of planning or strategy use	* could use self-talk procedure during simple tasks (i.e. learning to form letters)

Note. PAT = Phonemic Awareness Test; ILT = Informal Language Test; Stieglitz = Stieglitz informal reading inventory.

(Table continues)

Self-talk training.

TC could not identify any specific instances of self-talk, which was not surprising for a child of his age and behavioural difficulties. During the first self-talk activity, he was able to copy the intern's modelling of self-talk. When he attempted to model self-talk, he made self-talk statements at the beginning of the activity but had to be prompted towards the end.

During the second self-talk activity, tracing mazes, TC made more spontaneous self-talk statements and was able to recall the types of self-talk statements that helped him to complete the activity successfully. When TC attempted to complete a similar self-talk activity he made fewer self-talk statements aloud but could answer specific questions about his planning.

In general, TC appeared to have had little experience in monitoring his behaviour with self-talk and seemed capable of doing so only with constant support and supervision.

Ongoing Assessment and Intervention

Metacognitive: During the practice of formation of upper and lower case letters, TC sometimes talked aloud about letter formation such as asking himself to recall the visual appearance of the letter and the combination of types of shapes he would need to form it. After several sessions of using different media for practising letter formation, the intern asked TC to use the four-question process to plan his letter formation session. With the simple choice of activities, TC was confident about his ability to plan his work.

Table 2

TC's Table of Strengths and Needs Following Initial Assessment

Grade: 1 Date: Feb.1/97

Strengths	Needs
- can segment words into onset and rime. - responds well to success and positive reinforcement	- to learn to identify and form all upper and lower case letters. - develop phonemic segmentation and blending skills. - read beginner books - variety of strategies - attempt to stay on task and focused

The intern asked him each of the four questions at the appropriate time and he responded, sometimes in full sentences and sometimes in fragments.

After several sessions in this vein, TC's classroom teacher mentioned that she would like for TC to be involved in more whole reading and writing activities so the intern applied the four questions to the reading strategies TC needed to use to read simple pattern books. For the duration of our sessions, we focused on using picture cues and initial sound-letter cues. The intern would model and TC would attempt to apply the strategies to his book. He did not adapt well to this change in activity and often resisted participating. Sessions were sometimes cut short.

During the seven weeks, TC missed at least one or two days of school each week and missed a full week just before the end of the session. This provided a continuity problem. On some days, TC appeared to be able to use reading strategies and on other days, could or would not participate. If he became familiar with a story, he would locate a word which the intern asked him to locate by rereading the text and pointing at the words until he came to the word. He would only use sound-letter cues when prompted to do so.

Progress towards other short-term goals during intervention: TC learned to identify most upper and lower case letters although the focus of intervention was on lower case letters. He could form all of these letters as well. Quite frequently, TC would ask for help with a letter that he had already formed correctly earlier in the sentence. He

usually asked for help before looking for himself and, even when it was possible to copy words from sentences the intern had written, did not use this as a strategy either. In class, he often appeared to have difficulty copying from the board and frequently lost his place. Copying what someone else had written did not appear to be easier for him than composing independently.

TC developed more phonemic blending and segmentation skills throughout the 12 weeks. He was more able to use functional spelling in order to compose but his sight vocabulary increased minimally. He could identify all of the sounds to accompany consonants and several vowel sounds. His classroom teacher and remedial teacher also provided instruction in these areas.

TC became familiar with the patterns in simple books and could replicate them once provided with the initial pattern. He still had a great deal of difficulty decoding simple words.

Slowly, TC appeared to be able to focus for longer periods of time (sometimes as much as five or 10 minutes), especially in class, although depending on his mood, energy or frame of mind, he often resisted doing work that he perceived as requiring effort.

Post-intervention Assessment.

Post-intervention assessment information about TC is summarized in Table 1.

TC missed two weeks of school towards the end of the assessment and was often

uncooperative when the intern attempted to work with him. His progress may be best noted by referring to the comments of progress throughout the intervention period.

Student 2: MC

Pre-intervention assessment.

MC is a grade 1 student who arrived at Newtown Elementary in September, 1997. He lives with his mother and his sister but will soon be also living with his mother's new husband and her baby. After initial observation, MC was placed in a language arts group with ten other students in Grade 1 outside of his regular classroom for 1 1/2 hours a day. MC received three 1/2 hour sessions of individual intervention time each six-day cycle.

Pre-intervention assessment information about MC is summarized in Table 3.

MC could read few words by sight and had difficulty identifying phonemes. He focused primarily on the visual appearance of words. In contrast to his minimal writing and reading abilities, MC spoke clearly and in full sentences. He would speak at length with little prompting and would initiate questions.

MC showed a well developed sense of humour as well as some evidence of abstract thinking, i.e., he talked about the importance of facing one's fears. He wanted the

Table 3

Summary of Pre- and Post-Intervention Assessment for Student #2: MC

Pre-Intervention Assessment	Post-Intervention Assessment
Reading	Reading
* can recognize visual similarities between words	* can identify 15% of words in isolation (Preprimer)
* can identify 20% of words in isolation (Preprimer)	* reads for meaning first, then uses picture cues, then sound-letter correspondence
* cannot read any words in context but can identify several words within sentences that he knows	* easily discerns patterns of text in simple books
* miscues are related to words' visual appearance	
* can identify most lower and upper case letters	

(Table continues)

Writing	Writing
* inconsistent success with journal writing - some days uses random letter strings, other days is phonetically decipherable	* resistant to write during final assessment
* makes light loose pencil marks when writing or drawing	* writes more readily in class when remembers that he may choose a different activity if he finishes in a reasonable period of time.
* can write ~ 8 words accurately and independently	* uses letters to symbolize words
* misspellings sometimes visually or phonetically similar to correct word	* uses mixture of upper and lower case letters
* can supply missing letters in simple words if teacher makes the sounds, otherwise results appear to be random	* often omits syllables and sometimes entire words
* forms a number of letters and numbers backwards	* attempts to make sounds for letters but does so sparsely
	* can write ~15 words accurately
	* can form all lower case letters

(Table continues)

Table 3 *(continued)*

Listening	Listening
* demonstrates well developed predictive ability when listening to stories * comprehended and attended to level 1 passage read aloud * less attentive after 1st reading - success only with literal questions beyond level 1	* continues to complain about peripheral noise (Incomplete because of absence during final assessment period)
Speaking	**Speaking**
* well developed verbal skills and evidence of abstract thought * often interrupts others while they are talking * tells lengthy developed anecdotes while working * speaks in complex and simple sentences * can retell main ideas of narrative although not necessarily chronological * storytelling often tangential to visual image	* no new comments

(Table continues)

Phonemic Awareness	Phonemic Awareness
* can identify 16/21 consonants sounds	* can discriminate similar and different word pairs
* difficulty with vowel sounds	* can isolate more beginning, middle and final phonemes when dealing with individual words.
* early to mid-kindergarten auditory analysis skills	* applies self-talk procedure to phonemic analysis
* can isolate initial phonemes - sometimes, final phonemes	* frequently segments words into onset and rime
* could not identify similar/different word pairs (thought there was an order pattern)	* early Grade 1 auditory analysis skills (Rosner)
* cannot blend phonemes to form a word	* can identify all consonant and most vowel
* strong knowledge of rhyming pairs	

(Table continues)

Table 3 *(continued)*

Attitudes/Work Habits	Attitudes/Work Habits
* difficulty attending during group instruction and during seat work * high level of activity * friendly with classmates * requires great deal of supervision to complete work * engages in behaviours to put off work - playing games, hiding his materials, asking to leave the room	* crying in class from time to time when privileges taken for misbehaviour or inattention * positive attitude towards reading * says good readers read a lot * knows that people need to read and write more as they get older * knows that writers need to listen and to make word sounds
Metacognitive Awareness	**Metacognitive Awareness**
* aware of difficulties with listening, reading and writing * aware of distractibility (observations confirm sensitivity to noise and actions of others) * aware of own reasons for choices (ILT)	* understands gist of self -talk process and can form own questions * could apply self-talk to personal situations * stresses importance on thinking in his head

Note. Rosner = Rosner's test of auditory analysis skills; ILT = Informal Language Test.

intern to interact with him during story retelling and kept asking the intern's opinion. He was an enthusiastic conversationalist but avoided any seatwork which required reading, writing, or drawing. A table of TC's strengths and needs was devised in consultation with his teachers following this period of informal assessment (see Table 4).

Self-talk training.

MC was eager to share examples of personal self-talk which were related to playing with others. During the second activity, colouring shapes, MC found it difficult to wait to follow the intern's lead. For this reason, the entire procedure was repeated on the following day. On the second occasion, he was able to follow and was able to model the shading procedure although he had to be prompted for self-talk statements towards the end of the session.

During the third activity, making trails, MC still showed a tendency to want to start without the intern. He quickly became more adept at creating self-talk statements and continued to do so throughout the sessions without prompts. At the next session, he was able the recall the gist of the self-talk, "Take your time. Make a plan.", and found it easy to apply the self-talk questions to some problems he might have to solve. MC and the intern created prompts that MC might use in class when he was having difficulty

Table 4:

MC's Table of Strengths and Needs Following Initial Assessment

Grade: 1 Date: Feb.1/97

Strengths	Needs
- very willing to help out - teachers and classmates - likes to listen to stories being read - asks questions about books/topics - naturally inquisitive - literal understanding of stories and good predictive ability -beginning to recognize visual patterns in words (**like** is like **take**; **far** is like **fox**) -knows the sounds that accompany most consonants and vowels - good listening comprehension -strong knowledge of rhyming words -verbally creates complex stories and sentences.	- attempt to use sound-letter knowledge to write more - read beginner books - variety of strategies - phoneme segmentation and blending - to focus attention on task - verbally and physically

paying attention or getting to work.

Ongoing assessment and intervention.

Metacognitive: Although MC seemed quite able to produce self-talk in an individualized setting, he had trouble transferring this ability to the classroom. The intern attempted to remind him of his self-talk in class but he said he was tired or wanted to play.

When questioning MC about words from stories, he often spontaneously analysed the words. He could point out whether he was having difficulty with the beginning or end of a word and was paying attention to word length when trying to distinguish between two words.

When he started to use the self-talk procedure to reinforce reading strategies, especially a combination of picture cues and initial sound-letter cues, the intern guided his self-talk by posing the questions. MC's self-talk statements reflected his internalization of the concepts although the intern rarely witnessed him using them without prompt. He understood that he was planning and trying to concentrate and "listen to [his] mind." The strategy for reading and writing that he explicitly stated most was "stretching out" the words. He would attempt to make the individual sounds in words in order to read them or spell them.

During a discussion about what was done when MC came out with the intern he became noticeably upset. He seemed frustrated with school in general and the intern asked him what it was all about. He said, "When I goes up on the carpet in Mrs. P's class

they're all talking, it gets stuck in my head. All that talking gets in your head. It's quiet in here."

On a number of occasions MC complained about the noise in the class and often held his head down in his hands when the class did group reading activities. His hearing had been assessed with no significant results but follow-up with the speech-language pathologist was recommended.

Later during that same session, MC refused to reread a book that we had read the previous day. When we talked about reading strategies he insisted that he did not have to use the letters in the word to read the word. The intern explained that everyone used the letters in words to help them to read. It was clear that a lot of his reading was based on the understanding of sentence patterns and on memory. This incident reinforced the intern's suspicion that either MC was not intellectually ready for these kinds of reading activities or that some other individual difficulty was interfering with his auditory understanding. The next day was more successful.

When MC was successful with his reading, he constantly reinforced himself with statements such as, "I got it right." and "I'm doing good.", a habit which had been observed before the self-talk training but seemed more frequent now. He began to recall the strategies he intended to use at the end of a session and explain how he had used them.

Progress towards other short-term goals during intervention: At the beginning, MC used pictures as cues to create meaningful text which might not have any relation to

the letters and words on the page. By pointing to the words as he read, MC was able to gradually pay more attention to the number of words he read and the details of these words. His miscues continued to be meaningful, i.e. 'got' for 'went.. With the interns's prompting, he was able to modify his guesses.

The intern trained MC to use a self-talk procedure (Gaskins, 1996) to stretch and blend phonemes with simple words that he encountered when he read. At the beginning, he had difficulty separating the sounds and actually forming some of the vowel sounds. From day to day he could not always reproduce the segmenting self-talk and had trouble chronologically ordering the sounds. After four or five sessions with the same simple words his accuracy improved.

It was consistently clear that MC had difficulty perceiving the sounds in words on his own. However, the amount of modelling we did only helped improve his identification of initial sounds. In comparison to the rest of his classmates, MC had difficulty seeing the patterns of sounds within words, especially vowel sounds.

Post-intervention assessment.

Post-intervention assessment information about MC is summarized in Table 3.

Because of MC's absenteeism directly before Easter, some of the informal assessments were carried out three weeks after a break from school. These later assessments will be indicated.

When the intern asked MC the four self -talk questions he responded with two more general questions : What is my plan? and How am I doing? He replied that asked

himself these questions when doing Math and when visiting his friends. Further prompting did not reveal what he meant by the latter. He had a general idea that a plan could help him, especially as he gets older.

Three weeks later, when he read a short story, Stop!, the intern asked MC if he remembered how to help himself and he replied, "Pictures can give us the clues. Thinking and listening. The letters." This book appeared to be too difficult so he tried another, Our Granny. The intern read the first page of this book as well. MC read most words correctly and without any detraction from the overall meaning. He predicted several words based on the passages overall meaning without attending to the initial letter.

Towards the end of another story he miscued 'windows' for 'walls' and 'house' for 'halls' giving the impression that he was paying attention to initial sounds. These words also made sense in the story even though they were not entirely interchangeable for the correct words. The intern asked MC what kind of clues he used and he said, "Sounded them out. Listening...you know...to the pictures. I was looking at the pictures to give me a clue."

During the phoneme segmenting exercise MC said, "What. Stretch 'em. You forgot about that didn't you." He immediately recalled the self-talk practice and put it to use.

Student 3: BD

Pre-intervention assessment.

BD is a grade 2 student who has been at Newtown Elementary since the beginning

of Kindergarten. He lives with his younger brother and his mother and father. BD's mother has consistent daily contact with the school. BD received small group assistance in grade 1 as well. He does well in other subject areas besides language arts but often takes a long time to complete work and has had some conflict with his classroom teacher re: speaking inappropriately and out of turn. BD receives one-half hour of individual or small group help in reading and/or writing three times during a six-day cycle. He received one half hour of individual intervention three times during each six-day cycle for the duration of the internship.

Pre-intervention assessment results are summarized in Table 5.

BD appeared to be a competent student in all areas except reading and writing which seemed to require more effort for him than did the other areas. He worked very slowly and was often distracted which diminished his ability to comprehend and use contextual clues. He appeared to be very lethargic and unconcerned about his apparent lack of effort in school. BD seemed to be well-nourished and got adequate sleep. Some time in March, BD's physician discovered that BD had some sort of thyroid difficulty which may explain his energy ebbs and flows. A table of BD's strengths and needs was devised in consultation with his teachers following this period of informal assessment (see Table 6).

Table 5

Summary of Pre- and Post-Intervention Assessment for Student #3: BD

Pre-Intervention Assessment	Post-Intervention Assessment
Reading	Reading
* can identify one or two useful reading strategies	* more fluent reading but inconsistent from session to session
* can read 80% preprimer words in isolation and only 50% at primer level (Stieglitz)	* using sounding out as his primary strategy
* most frequently skips words he cannot identify immediately in isolation and in longer contexts	* can use other strategies with guidance and prompting
* can read 100% of preprimer words in context and 70% at primer level (Stieglitz)	* can read 80% primer words in isolation (15% at Level One)
* likes to listen to books	* reluctant to read longer passages during final assessment
* does not like to read himself	* more explicit knowledge of reading strategies
	* perceives a connection between knowing how to read and knowing how to write
	* says good readers read a lot
	* enjoys reading aloud more at home than at school

(Table continues)

Writing	Writing
* can write at least 32 words accurately (Observation Survey)	* more simple and complex sentences than previously
* writes and spells phonetically without regard to common spelling patterns	* still focused on phonetic components when spelling
* writes with distinct words and sentences	* names same strategies as for reading
* tends to use simple sentences	
* enthusiastic about writing personalized stories which he embellishes	
* conscious of errors/inconsistencies in others - corrected the intern on occasion	
Listening	Listening
* distracted by environmental objects and print	* continues to be frequently distracted
* difficulty staying physically focused	
* can answer literal questions about a passage read aloud (Levels 2 and 3)	
* difficulty with interpretive and creative/critical questions (Levels 2 and 3)	

(Table continues)

Speaking	Speaking
* difficulty summarizing a story - tends to be literal * sometimes misses larger picture of story * enjoys exaggerating when telling personal stories	* more summary when retelling - less literal
Phonemic Awareness	Phonemic Awareness
* delayed auditory analysis skills (late Grade 1, Rosner) * easily distinguishes same and different word pairs * can isolate initial, medial, and final phonemes in simple words * can blend and segment phonemes * can identify rhyming pairs of words	* appropriate auditory analysis skills (late Grade 2, Rosner) * competent at all other phonemic awareness tasks

(Table continues)

Attitudes/Work Habits	Attitudes/Work Habits
* frequently unwilling to read or write - most commonly says "I don't know."	* improved confidence - states explicit examples of how he can read and write more now than previously
* yawns and stretches frequently in class and in individual sessions	* still having difficulty with pace of work
* plays with materials and is in and out of seat during instruction	
* appears to be able to read and write with more fluency and accuracy than he actually does	
* dependent on others to do things for him (i.e pack school bag, undress and dress at school)	
* little social interaction with other students - some combative relationships	
* can follow classroom instructions	
* uses a computer frequently at home	

(Table continues)

Table 5 *(continued)*

Metacognitive Awareness	Metacognitive Awareness
* whispers aloud while he spells and talks to himself about how is doing with spelling * can identify one or 2 useful reading strategies	* explicit knowledge of four self-talk questions and when to used them * did not generalize use to other subjects without prompting * is self-aware of difficulties and needs but does not appear to wish to change these difficulties

Note. Stieglitz = Stieglitz informal reading inventory; Observation Survey = Marie Clay (1993) Writing Inventory in An observation survey of early literacy achievement; Rosner = Rosner's test of auditory analysis skills.

Table 6

BD's Table of Strengths and Needs Following Initial Assessment

Grade: 2 Date: Feb.2/97

Strengths	Needs
- enjoys drawing and puts a great deal of effort into it. -likes computers - has one at home - has some reading and writing sight vocabulary - good listening skills and can understand instructions (good listening comprehension) -can use context for clues. -good knowledge of consonant sound correspondence.	- expand and develop reading and writing sight vocabulary - to develop more explicit awareness and use of reading strategies. - to develop confidence and make greater efforts (independence) - to retell a story in own words (not addressed during this time frame).

Self-talk training.

BD was able to think of and explain a number of instances when he talked to himself. He described talking when playing and when he wanted to do well at something. He asked the intern about sleep-talking and said he talked in his sleep. He said he also talked to himself when figuring out his math.

BD was introduced to the four self-talk questions and the cartoon and was able to interpret the problem-solving pictures. In response to questions about his difficulties, he replied, "I don't know how to read." He claimed that the reading he had done earlier in the day was only possible with his teacher's help. The intern suspected that BD did not want her to think he could read because she might expect him to read.

During the shape colouring activity BD was very involved and wanted to continue the copy cat behaviour even after the session was over. He was able to model the planning and evaluating for the intern. The intern had to remind him of the four questions but he used them appropriately. He did equally well with the maze tracing activity. This question-asking procedure appeared to appeal to BD's desire for order which he demonstrated on several occasions. He want to complete his "Book About Me" until every detail was complete, he wanted to list all of the vocabulary he knew during informal assessment and would scan all environmental print to find words to enhance his list, and he quickly prompted me if I forgot one of the four self-talk questions or was slow to provide a prompt.

BD and the intern brainstormed personal situations where BD could use this self-

talk procedure and set out a tentative plan for reading which involved strategy use.

Ongoing assessment and intervention.

Metacognitive: BD quickly learned the four self-talk questions and could respond to them appropriately within a reading session. The intern would ask him if he was using his plan and he was consistently able to name the strategy which he had used. After the first self-talk session he requested that the intern add a strategy to his initial plan, "Remembering words I already saw." BD was aware of the intern's role in enforcing the use of four questions and would include the intern's role in his final responses to "How did I do?".

BD also used the four question self-talk procedure for learning individual words, especially on a word processing program that scrambled and read words which we took from his reading such as 'park' and 'there'.

When using the four question procedure for writing, BD immediately recalled the strategies he used for reading. Again, his primary strategy was sounding out. He wrote sentences like, "its tethd is as shap as a nife." [It's teeth is as sharp as a knife.] Irregular sounds and spellings caused him more difficulty than phonetically regular ones. He usually identified these incorrectly spelled words but did not know how to correct them or make them more accurate such as by segmenting the words into phonemes.

BD liked the idea of having a plan. During a discussion halfway through the internship, he told the intern of his plan to trap and photograph the Easter bunny. Concerned that he might be too dependent on the intern to remind him of strategy use, BD was instructed to ask and answer the self-talk questions in his head. At this point in time, towards the end of the sessions, BD appeared to be having more and more difficulty focusing and would take much longer than necessary to read. His other teachers reported similar behaviour. He took breaks to stare at the book, yawn, play with objects he could reach, sit on the floor and lie on the desk. This behaviour necessarily disrupting his fluency and comprehension. We discussed this problem at the end of the session and although he acknowledged what he was doing, he did not seem concerned about changing what he was doing. We spent part of the next two sessions discussing what makes a good student and BD came up with several concrete suggestions, each of which he explained he was not.

Because of BD's explicit awareness of reading strategies, we started a trick book of reading and writing strategies. It was used for two or three sessions but BD soon lost his. Since the purpose was to continue the strategy use outside of our sessions we did not create another one. There were only three or four sessions left at this point.

Progress towards other short-term goals during intervention: In order to improve BD's fluency and instant recognition of words, the intern sometimes used the method of repeated reading. BD improved considerably at each reading and his improved speed appeared to positively affect his strategy use and comprehension.

BD was able to identify words which he had difficulty with after he read and he played games and listed word families to help his recall and recognition of these words.

From time to time, BD would say that he did not need to use his strategies although when the intern prompted him as he was reading he could name the strategy he was using. As well, he appeared to use a wider range of strategies when he was reading more accurately.

BD's remedial teacher and the intern were concerned about his overreliance on sounding out and decided to reassess his sight vocabulary to see if it was improving. They discovered that BD was reading more words from the grade 1 level list of site words than previously. Perhaps because his sounding out competence was relatively recently attained, he was over relying on it as a temporary measure which brought a fair degree of reading success. BD did not spontaneously read words through analogy with similar, familiar words but took to this strategy readily on the five or six occasions that we used it. We used the procedure for words he had difficulty with in his reading.

As with other students, the intern began teaching reading strategies through modelling sessions. His primary strategy was sounding out, sometimes to the exclusion of contextual cues. If "sounding out" did not work, he did not know where to turn for an alternate strategy.

Post-intervention assessment.

Post-intervention assessment results are included in Table 5.

BD was able to read at a more advanced reading level at the end of intervention but he continued to be sporadic in his reading success and ability to attend.

During questions about self-talk awareness, BD recalled the four self-talk questions and could give examples of when he used this self-talk. He said that he used them during reading and writing but did not use them so much in class because his teacher did not ask him the same questions that the intern did.

When reading sight words in isolation, BD continued to perform well below grade level. He scored 80% at the primer level and 15% at level 1. He could not read isolated words beyond level 1.

The intern attempted to have BD read words in sentences and oral passages but he was very reluctant to do so and claimed he could not read them. He may have been aware that the intern was assessing him and was reluctant to participate for that reason. After aborting one session, the intern had him read from a different passage, The Fall is Nice (Alberta IRI) and was able to note the strategies that he used. During this session he skipped words and came back and told me, "I'm reading in my mind." He also used sounding out and could cite examples when he did this.

When the intern questioned BD about his knowledge of reading he mentioned a number of strategies and explained that "I need to know how to write to read." BD seemed to perceive this reading-writing connection throughout our sessions. He also

mentioned that he likes to read notes that his mom writes to him on a computer. BD appears to need a great deal of motivation to read.

When the intern asked BD his ideas about good readers he said that they read a lot and demonstrated his reading improvement by asking the intern to write something for him to read.

BD's writing sample was coherent and composed of adequately complex sentences. His writing tended to be highly phonetic but he was spelling more common words correctly.

When the intern asked him about his knowledge of writing, BD listed the strategies that he had previously mentioned for reading and for writing. He said he had difficulty finding words he did not know. Often, when stuck for a correct spelling, BD would look around the classroom for words he needed to be able to spell. He wanted to tell how he could spell animals now and he could not before.

When the intern asked BD his ideas about good writers he again wanted to demonstrate. He told about words that he could spell.

BD performed well on the phoneme isolation, segmenting and blending tasks. He scored at the late grade 2 level on Rosner's Test of Auditory Analysis Skills one grade level further along than he had in January.

Student 4: HR

Pre-intervention Assessment

HR is a Grade 3 boy who transferred to Newtown Elementary from a rural

Newfoundland school in October, 1996. This is his sixth school since Kindergarten. HR received special help in Language Arts (esp. Reading) in Grade 2 in Calgary. He lived with his mother and father for the better part of this school year but his father has recently returned to Calgary (end of internship period). He has a great deal of contact with his adult step-sister as well.

HR began receiving 1 1/2 hours/day of Special Education assistance (in Language Arts) outside of the regular classroom upon his arrival at Newtown Elementary. His reading and writing abilities are above those of his Special Education classmates although his confidence is quite low. HR received 1/2 hour of individual intervention time 3 times in a six-day cycle. As well, the intern participated in his Language Arts class for 1 1/2 hours / six day cycle.

Pre-intervention assessment results for HR are summarized in Table 7.

HR initially engaged in much negative self-talk and was very self-conscious about his reading. He tended to choose tasks which neither met nor challenged his abilities. His writing skills surpassed his reading skills and he had a great deal of trouble with sight vocabulary. HR enjoyed conversation and exhibited solid work and study skills. He paid attention in class and concentrated on his work. He was diligent about completing his

Table 7

Summary of Pre- and Post-Intervention Assessment: HR

Pre-Intervention Assessment	Post-Intervention Assessment
Reading	Reading
* chooses books beneath independent reading level * Independent sight word level (Preprimer - Level 1) (Stieglitz) * Independent contextualized word level (Level 1) * Independent oral passage level (Level 1) * uses syllabic appearance as guessing strategy for unfamiliar words * uses few reading strategies but only when reading contextualised words * strategy used decreased with length and difficulty of passage * unable to explicitly name strategies	* difficulty processing words on sight * Independent sight word level (Preprimer-Primer) * miscues more visually and phonemically similar to correct words than previously * Independent oral passage level (Level 2) * uses wide range of reading strategies when reading longer and more difficult passages * slower and more fluent reading * aware of own accuracy * still focused on importance of knowing big words and reading chapter books

(Table continues)

Table 7 *(continued)*

Writing	Writing
* tends to use same sentence pattern repeatedly	* more varied sentence patterns (simple and complex) - similar to oral speech
* difficulty with some common words and spelling patterns	* more risk-taking with spelling, punctuation and sentence patterns
* fairly accurate spelling	* still some difficulty with common spelling patterns
* no difficulty choosing topic or generating ideas	* focused on importance of neat handwriting, spelling and writing conventions (product rather than process)
* tends to rush without rereading/rewriting	* knows writing strategies and makes reading/writing link
* inconsistently uses capitals and periods accurately	
Listening	Listening
* comprehends well from Levels 1 to Four (Stieglitz)	* no informal assessment carried out at this time
* can answer literal, interpretive and creative/critical questions	
* has mature conversational skills in terms of listening and responding	

(Table continues)

Table 7 *(continued)*

Speaking * can retell a story logically and chronologically * enthusiastic speaker and storyteller * more comfortable with factual description than narrative explanation of visual images * has range of personal interests/events to discuss	Speaking * no informal assessment - observation reveal similar patterns to pre-intervention assessment
Phonemic Awareness * late Gr.1/early Gr. 2 auditory analysis skills (Rosner) * difficulty with phoneme segmentation - uses onset and rime * can blend phonemes or isolate individual phonemes * can identify rhyming word pairs	Phonemic Awareness * mid to late Grade 2 auditory analysis skills (Rosner) * difficulty segmenting consonant blends * easily segments and blends simple words

(Table continues)

Attitudes/Work Habits	Attitudes/Work Habits
* low self-esteem re reading and writing * likes reading at home * dislikes reading at school * focused on number of errors in reading rather than successes * very concerned with perfect performance - especially in front of others	* drastically improved confidence re reading and writing - focused on successes rather than errors
Metacognitive Awareness	Metacognitive Awareness
* well developed negative self-talk (i.e. would count errors as he read) * few strategies to encourage his own performance * little explicit knowledge of reading and writing strategies	* less negative self-talk - more positive self-talk * vast expansion of reading and writing strategy use * moderate expansion of explicit strategy knowledge (more for reading than writing)

Note. Stieglitz = Stieglitz reading inventory; Rosner = Rosner's test of auditory analysis skills.

(Table continues)

homework. HR was very concerned, almost obsessed, with perfect performance. A table of HR's strengths and needs was devised in consultation with his teachers following this period of informal assessment (see Table 8).

Self-talk training.

HR responded well to the self-talk instruction and, of all the students, appeared to have the most developed inner voice. Developmentally, he was ready for this intervention. He gave numerous academic and social examples of self-talk and told the intern about a number of negative things he says to himself when he is not doing well. We discussed possible positive comments he might make to himself to replace the more negative self-statements.

During the shape colouring activity, HR copied what the intern said and was able to model self-talk. His comments often had, however, an evaluative element that the original model did not. He often said "Very good." or "No mistakes". HR did not like to make mistakes. During the trail-making activity, HR modelled well as the activity began but needed prompting for the monitoring and evaluating questions. HR said he felt a little silly talking aloud to me. The intern explained that one could not know what he was thinking unless he planned aloud. He had less difficulty with this as time went on.

The next day consisted of review and application of the thinking aloud to HR's reading. Reading strategies were included in the personal prompts.

Table 8

HR's Table of Strengths and Needs Following Initial Assessment

Grade: 3 Date: Feb.2/97

Strengths	Needs
- likes to draw	- to develop and expand his sight word vocabulary
- wants to do well; is attentive and focused.	- needs to develop decoding skills at the phonemic level (consonant blending and segmentation) and syllable level - develop auditory analysis skills
- has good comprehension and retelling abilities	- expand and strengthen existing reading strategies
- can use a number of reading strategies: context, syllable segmentation, repeating and reading on.	- to develop his confidence in his reading abilities and reasonable expectations for self

Ongoing assessment and intervention

Metacognitive: During HR's sessions, the primary focus was on reading strategies and, to a lesser extent, writing strategies. During the first sessions the intern wanted to observe HR's use of strategies in more detail so use of the explicit self-talk questions was temporarily delayed. When HR read something he had written he appeared to rush and, when flustered, only used rereading as a strategy.

During observations in HR's special education class, both the special education teacher and the intern noted that he had great difficulty recognizing some simple words when the contextual cues were minimal, i.e. log, dark. We discussed the idea of a processing problem and agreed to consult the speech-language pathologist. She suggested a focus on strategy use which involved creating a trick book of strategies with built-in rewards and the use of short yet interesting reading material such as jokes and mysteries.

Also, when HR attempted to summarize an informational passage in writing, he appeared to be stumbling over how to phrase his sentences and was writing with awkward phrasing. He also had difficulty recalling more than one or two specific details from the passage even though he was very familiar with the topic and was interested in it.

Upon implementation of the four self-talk questions, HR showed a steady improvement in his strategy use and fluency. For the earlier sessions the intern asked HR the questions and recorded his responses. Later, he would ask himself the questions, sometimes overtly and sometimes covertly.

On one occasion, HR wrote and then dictated his writing to the intern. When the

intern asked him the difference between our two versions (note: the intern made editing corrections), HR did not appear to understand. The only difference he stated was the specific positioning of our words on the lines. After several repetitions, he could find some differences. When writing future drafts, he tended to refer to his old drafts rather than the intern's. In later writing sessions, brainstorming occurred first and HR found this helpful. He spontaneously checked his ideas as he wrote about them.

Even in mid-way through the 12-week period, HR's level of stress over reading aloud was interfering with his progress. He resisted recording himself on tape but was very pleased with the results in the end. By making predictions about what percentage of words he would read correctly and surpassing those predictions, he became more comfortable with the task. After several sessions, HR began to add his own idiosyncratic self-talk to the sessions, i.e.,"Read on to the end in my mind." HR's self-talk became more and more detailed and he soon was able to review each page as he read and review the strategies he had used on that page.

In order to reinforce the self-talk process towards the end of the sessions the intern modelled the process by alternately reading pages of a book, Little Dinosaur (Wilson, 1994) with HR. This book was at a late grade 2 reading level. He showed evidence of using contextual cues more and could use phonemic cues to make guesses at the word level. During this longer activity, he was able to focus on taking time to read carefully and fluency.

Progress towards other short-term goals during intervention: The intervention

sessions included little work directly aimed at improving HR's sight vocabulary although he did show an improvement in this area by the end of the sessions and stumbled less over words such as 'what' and 'this'. In order to improve HR's confidence and reading proficiency, the intern also used strategies such as repeated readings, and more skill-based activities. During reading sessions, the focus was on the sound-letter relationships within words which were practised by distinguishing between very similar looking words.

We started the trick book during the second half of the 12-week period. The trick book included a reading strategy section and a writing strategy section. HR recorded strategies, i.e. tricks, that he used or wanted to use within these sections and he would receive a check mark or a small sticker when he could describe an instance when he used one of the strategies. This book appeared to contribute to HR's increase in confidence because he was focusing on what he was doing correctly, not on his errors. Also, he tended to shift his focus to whether or not he used his strategies instead of how many words he could not read.

Post-intervention assessment.

Post-intervention assessment results are summarized in Table 7.

HR appeared to have progressed a great deal during the course of the winter, although not as much as his teachers initially expected. There appears to be the existence of some sort of processing problem which he may be able to compensate for to some degree. HR's self-confidence improved tremendously as his reading improved and he appears to read comfortably now at a mid-grade 2 level.

Throughout the sessions he was able to replace some of his negative self-talk with more positive statements. He learned to be expand his strategy repertoire and to apply strategies to situations more appropriately.

During explicit questioning about self-talk, HR was able to recall the four questions we used to guide self-talk and could give explicit examples of when he used them. He was more aware of using strategies for reading than for writing or spelling which reflects the relative time we spent on these activities.

HR showed much more varied and explicit knowledge of metacognitive strategies for reading than he had initially. He still believed he needed to 'know' the words, showing his awareness of his weakness in the area of sight vocabulary.

Metacognitively, HR was aware of a number of writing strategies which overlapped with his reading strategies. He also included strategies such as rereading.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Discussion of Research Findings

Based on this fairly limited research on a small number of students, with a wide range of abilities and needs, and for a short period of time, there appear to be a number of tentative conclusions that can be made about the use of self-talk training specifically and the importance of metacognitive ability in general.

Metacognitive ability is usually fairly undeveloped with very young students. After all, part of their maturation involves the adoption of self-control and the ability to plan and reflect on their own problem-solving. They may need to work on developing strategies to monitor simple academic tasks to begin with. TC and MC were best able to deal with simple tasks and strategies which were repeatedly practised.

Also, academic self-talk often needs to be accompanied by behavioural self-talk. Had these two types of self-talk been combined during the internship, the students might have achieved a greater degree of success. Students cannot be expected to monitor their school work if they have not learned to attend in class.

The task of teaching self-talk to very young students becomes complicated when these students are having more difficulty learning to read and write than their classmates. Although the long-term benefits may be greater for these students, the initial expectations require both coping with class material which is often too difficult and the new self-talk strategies. For these students, it may be necessary to over learn the necessary strategies

and to learn how to explicitly generalize the strategies across learning situations.

Another factor which appears to affect success at adopting self-talk is one's personal degree of self-talk at the onset of training. Although age may affect one's ability to monitor oneself there may be other components related to personality which play a part. Introspectiveness and social maturity may also lend themselves more to self-talk than other personality features. Also, it is important to note that self-talk can be positive or negative and even though students may engage in productive self-talk, they do not necessarily act on this talk.

The duration and frequency of self-talk training during this research was probably not adequate to have lasting affects on student's metacognitive behaviour. With follow-up, it seems likely that these students might continue to use the specific metacognitive strategies upon which they focused during the sessions but little generalization appears to have occurred. It seems that students need daily consistent training with metacognitive strategies which are integrated with regular schooling. Some students may need extra individualized training in the strategies if they are having difficulties. Thinking about our own problem-solving behaviour is more likely to come naturally if we do it constantly, not only in discrete situations. Younger students probably need this consistency even more than older students and students who are experiencing learning difficulties need it more than those who are academically successful.

It is difficult to tell how much of the students' success with metacognitive self-talk is due to the strategy training within this research and how much would have

occurred without intervention. In the case of HR and his shift from negative to positive self-talk, a number of individuals were aware of his difficulty and attempted to provide situations where he could succeed and be praised for his success. Within individual sessions, we explicitly discussed his habits of self-doubt and explicitly discussed his later success and the reasons for his change. This explicit awareness does not always appear to come naturally with students who are having academic difficulties.

Although structured self-talk protocols which have been tried and tested with a number of students may work well, it may also be necessary to personalize self-talk statements and situations for individual students. Some students may personalize statements and younger students may need to simplify so that they use statements which include the gist of the self-talk.

A longer period of time may be needed in order to pass through Meichenbaum's (1977) five steps from cognitive modelling to non-verbal self-instruction. Students in this study passed from modelled to guided self-talk and in some instances to independent self-talk. On several occasions students claimed to be using internalized self-talk. Once they became very comfortable with particular strategies, they did not appear to wish to speak them aloud.

Although some students use positive and/or negative self-talk spontaneously, many others appear to need models of metacognitive behaviour. Teachers and parents are the ideal models for reinforcement of self-talk. Adults who model self-talk on a regular basis and who gradually scaffold self-talk behaviour for children both encourage

children's independence and help to enhance their metacognitive abilities. Modelling of phonemic skills may be most helpful with young readers if reading success is predicted by phonemic segmentation skills.

The success of students in this study may have been limited by the intern's training in teaching self-talk which primarily came from independent reading and several graduate level courses. Teacher training in metacognitive strategies and encouragement to engage in reflective teaching would likely improve students' metacognitive success. Manning and Payne's (1996) comprehensive teacher training text, Self-talk for teachers and students, addresses these issues of teacher reflection and the modelling of social and academic self-talk in a easy-to-follow manner and furthermore suggests that self-talk training and awareness can improve teacher's feeling of self-worth and classroom potency.

Assessment of self-talk throughout this internship was fairly open-ended and consisted primarily of the intern's observations and anecdotal records. Standardized measures of metacognitive skills are still in the development stage and are fairly problematic. O'Neil and Abedi (1996) are beginning to develop a metacognitive inventory for high school students which they contend has some reliability. The assessment tool is, however, a self-report checklist of one's metacognitive processes including awareness, use of cognitive strategies, planning, and self-checking and therefore requires a certain degree of self-awareness and objectivity. It would be very difficult to administer to young students. Most other metacognitive measures also involve a degree of self-assessment. Manning (1990) categorises observed instances of self-talk which is more suitable for

younger students. Brown (1980) also argues that self-awareness is less developed in younger students and that they often misassess their own strategy use. One may monitor one's learning in subtle ways at a young age which may not involve explicit metacognitive awareness.

Discussion of Internship Goals and Objectives

The first goals of the internship was to develop assessment and intervention skills and to work with students who are having difficulties in reading and writing. As part of the work towards this goal, the intern intended to assess individual students who were having difficulty in reading and/or writing and were recommended for Remedial or Special Education help.

During the first three weeks of the internship, the intern assessed four individual students for later in-depth intervention. The contents of these assessments results from consultation with the off-site supervisor and the on-site supervisor. They were also determined by the intern's observation of these students in their classrooms. During original assessments, the intern usually included reading, writing, speaking and listening assessments. During the final assessments, the intern tended to concentrate on assessments that highlight focus areas from the internship but also repeated many original assessments for the purposes of comparison.

Throughout the internship, the intern also had the opportunity to carry out a number of other informal language assessments. The intern carried out individual reading

records and dictation assessments with grade 1 students.

The intern also performed in-depth, two hour assessments with three grade 3 students who were new to Newtown Elementary. Two of these students had been in French immersion and had been having a great deal of difficulty in English language arts and, most specifically, in reading. The other student had been receiving some reading from a volunteer helper at his other school but that school did not have a special education program.. These children were being considered for special education instruction for the next school year. The intern met with parents and classroom teachers following these assessments with recommendations for in-class and at-home assistance. During these interventions the intern had the opportunity to try out a range of informal reading inventories (IRI) including the Stieglitz, the Alberta, and Burns and Roe IRIs.

The above experiences exposed the intern to a range of students who experienced a variety of academic and social difficulties. The intern learned to follow up initial assessment with more probing tasks.

As part of the assessment goals, the intern intended to develop individual instructional activities based on assessment and carry out intervention with these students.

During the internship, the intern developed individual instructional activities for the four students in the research study. The pace and content of each lesson varied widely with each student. For the most part, the intern felt the lessons were productive and appropriate.

Each student did some work on reading strategies according to their

developmental and skill level and each worked on writing as a response to reading. Trade books were used for reading and students wrote about personally relevant topics. Each reading strategy session was followed up by work on word patterns that had caused the student difficulty in reading. In the cases of the two grade 1 students, they also worked on letter formation and sound-letter relationships using alphabet cards, playdoh, cornmeal for tracing letters and copying letters from models. Rereading was often used to reinforce fluency and to allow for strengthening of reading strategies.

In the case of the grade 2 student, the intern felt she might have somewhat neglected his difficulty with sight vocabulary which improved little during our time together. His overdependence on phonetic analysis during reading continued to hamper his fluency and comprehension. Partly, this difficulty was due to his newfound success with phonemic analysis which may have diminished relative to other strategies over time. His Special Education teacher is concerned with his difficulty in the area of sight vocabulary and is working to expand his repertoire.

A third component of the assessment goals was to carry out remedial instruction in cooperation with remedial and special education teachers in the regular classroom and with a group of students who are receiving help outside of their regular classroom.

During the entire internship, the intern participated in the planning, implementation and evaluation of a group of grade 1 students who came together for language arts for 1 1/2 hours per day. Initially the intern simply observed, participated in the classes and sat in on planning sessions but after several weeks planned some sessions

and for the last five weeks did much of the planning, implementation and assessment in consultation with the on-site supervisor..

The extended unit which the intern and supervisor developed stemmed from a Reading Teacher article by Gaskins et al (1996), "Procedures for word learning: Making discoveries about words", about using picture books to develop phonemic awareness. The unit focused particularly on the concept of rhyme and the use of phonemic clues to read and to write. During the first 2 weeks of the unit the intern presented whole-class literature based activities which would be followed up by small group-focused centre activities. The unit included skill-based phonetic components as well as whole literature responses. Along with the centre activities were guided reading lessons, daily journals and whole class word focus activities.

This was the first time the intern had devised centre activities. Activities were structured around phonemic awareness activities and somewhat familiar to students because of the introductory activities. Students were particularly interested in writing their own books at the writing centre.

Students responded well to this unit and enjoyed reading in rhyme although they sometimes had difficulty composing their own rhymes. They wrote stories in rhyme, read in rhyme and analysed rhyme.

Students who are having difficulty with reading and writing may need special help both inside and outside of the regular classroom depending on each student's specific needs, the skill and interest of their teachers, and other factors such as classroom size.

Dudley-Marling and Murphy (1997) contend that remedial programs often serve to ghettoize needy students and perpetuate a school experience which differs from their peers. They also argue that remedial programs such as Reading Recovery are exceptionally convenient in schools which are resistant to change and neglect to address the larger social issues which hinder students from disadvantages socioeconomic backgrounds. The intern's experience suggests that there are a number of students who would benefit from early intensive intervention which would prevent the need for later special services. Another group of students appear to have more complicated and often physiological or neurological difficulties which require more instruction which may not be appropriate in a regular classroom setting.

A final component of the assessment goal was to review the Literacy binder, Literacy development in primary school: A support document for teachers and primary school administrators, prepared for primary teachers by the Avalon Consolidated School Board as well as current professional literature to determine suggested activities.

The intern spent a number of hours prior to the internship reading the Literacy binder, focusing on literacy development in primary students which was developed by the Avalon Consolidated School Board and referred to it frequently during the internship. It includes research and theoretical literature on early language development, as well as assessment tools and teaching strategies to help develop early reading skills. One major focus within the binder is on phonemic awareness, a skill which was reinforced with the grade 1 students throughout the internship and which is normally a central focus within

that classroom, and which The on-site supervisor and the intern read about and discussed on a daily basis.

Throughout the internship, the on-site supervisor and the intern exchanged and discussed professional literature on indicators of early reading success as well as new publications in the area of guided reading, reading difficulties, special education, and other relevant areas. The particularly focused on reading around the topic of phonemic awareness and the controversy between whole language and phonics and where phonemic instruction fit in that debate (Clymer, 1996; Freppon & Dahl, 1991; Griffith & Olson, 1992; Groff, 1990; Moustafa, 1993)

The second goal of the internship was to learn the types of administrative direction and intervention strategies which are successful in arriving at school-wide reading and writing success, i.e. How can teachers help student with reading and writing difficulties? What makes teachers reflect on their instruction?

The first activity under this goals was to attend and contribute to grade 1 teachers' weekly planning meetings. The vice-principal, who also taught a remedial language arts group of grade 1 students, met with the other grade 1 teachers every Monday to review plans for the week. The meetings consisted primarily of discussion of the activities for the week which centred on a content-based theme such as penguins or an author study. This contact gave time for the remedial teacher to develop curriculum which corresponded to the regular classroom curriculum and to discuss progress of particular students although discussion of the latter was less common.

During these meetings the intern acted primarily as an observer although on several occasions she stood in for the on-site supervisor. The intern both contributed and recorded information to share with her later on. These meetings gave the vice-principal a route to learn the types of things that were happening in individual classrooms and occasionally to suggest ways to improve language arts instruction. These suggestions came mostly in the form of sharing the types of activities that were occurring in the remedial classroom.

Unfortunately, many of these sharing sessions consisted of choosing particular activities for the week from folders of material collected over past years rather than long-term planning or discussion of how to improve instruction and assessment of early readers and writers.

Another activity which was intended to contribute to the intern's second goal was to attend and contribute to primary teachers' long-term planning meetings for change in language arts instruction.

Because of time pressure of report cards and other professional development events, these planned meetings did not occur.

The intern did, however, participate in a full-day special education planning meeting with the challenging needs and special education teachers. The day consisted primarily of planning objective/goal items for future Individualised Pupil Plans (IPPs). The six teachers did some initial brainstorming together and then broke into groups of two to deal with larger headings such as reading, writing, listening, and speaking. The

teachers seemed to have already developed fairly consistent formats for IPPs and were fine tuning their approaches. The discussion surrounded topic of higher level and lower level goals and objectives.

The third activity for the administrative goal was to interview the principal, vice-principal and teachers about what they believe works best to bring about reflective practices for teachers and students.

The intern did not carry out formal interviews with the principal, vice-principal and teachers but did have ongoing discussions about what was working and what needed to happen in order to improve language arts instruction that responded to student needs and which promoted competent reading and writing. On several occasions the intern did sit down with the vice-principal, also the on-site supervisor, with specific questions in mind, i.e. How have you gone about the process of directing teachers toward structured planning of the Language arts curriculum?, How do you juggle the roles of teacher and administrator in teacher planning meetings?, about how the administrative team at Newtown Elementary had dealt with and planned to continue to deal with these issues.

The on-site supervisor is in the advantageous position of having an extensive background in special education while also having an administrative role within the school. She and the principal have worked together as a team for the last four years and in that time have made special education a priority. They both recognize a need for more focused and structured reading and writing instruction within the school and also the need to attempt to bring about change slowly and with teachers as full participants.

They began their intervention with an emphasis on kindergarten instruction. Teachers were encouraged to assess students at the beginning and end of the school year and to emphasize learning the alphabet, knowing the concepts of print and using running records to record reading progress. Kindergarten teachers now focus their instruction with these goals in mind.

The next area of emphasis became grade 1. Particular concerns included teaching sight vocabulary, sound-letter correspondence and using guided reading to focus student progress. Encouragement to improve instruction in these areas is ongoing. Of particular concern was the finding that students recently scored very high or very low on phonemic awareness assessments. Very few students fell in the middle range during these assessments. Future meetings with primary teachers will discuss this particular difficulty.

Crucial to change in these areas is the provision of a model of instruction which may be possible through The on-site supervisor's close contact with the grade 1 teachers and through teacher meetings where they can initiate ideas for change. The administrative team recognizes the needs for teacher ownership in change and the necessity for planning time to discuss such change.

Fourthly, the intern kept anecdotal notes on teaching practices which appear to hinder/enhance teachers' own reflective behaviour as well as student progress.

Throughout the internship, the intern kept a daily record of activities and impressions of the success and necessity of improvement in lessons which she taught and which she observed others teaching.

Interestingly, students appeared to have most success with reading and writing in classrooms where the teacher encouraged independent thinking and encouraging student-directed problem-solving. This kind of approach suits well a metacognitive approach and is in fact a form of strategy training.

As in most schools, teachers did not all encourage independent problem-solving nor did they provide opportunities for evaluating one's own success. Students in the grade 1 remedial group seemed to have particular difficulty exerting themselves during classroom activities.

The second goal of the internship was to use a metacognitive framework when working with students in order to develop self-reliance, reflective skills, and independent reading and writing strategies. Most of the activities which fall under this goal are described in more detail in the research section. The third activity, to encourage teachers to reinforce these strategies within the classroom is described briefly here.

The intern regularly explained to classroom teachers the kinds of activities which she was carrying out with their students but only discussed these in detail with the two special education teachers with whom she worked more closely.

With the grade 1 students, the intern and her supervisor agreed it was difficult to teach these strategies with the whole group of students who seemed to be unready for this type of training. On several occasions, talk-aloud strategies were used with the grade 2/3 math special education group which the intern visited once a week.

Recommendations

This internship was the beginning of an exploration into the many issues surrounding special education, administrative roles in bringing about school change in reading and writing instruction and intervention and the role that metacognitive instruction in strategy use can have in help students to become successful. The recommendations from the research component of the internship are discussed in the research section of this report.

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Appendix A
Reading Attitude Inventory
Paul Campbell, 1966 - Assessing a Managed Curriculum

Name:_____ Grade_____ Teacher_____

1. How do you feel when your teacher reads a story out loud?

2. How do you feel when someone gives you a book for a present?

3. How do you feel about reading books for fun at home?

4. How do you feel when you are asked to read out loud to your group?

5. How do you feel when you are asked to read out loud to the teacher?

6. How do you feel when you come to a new word while reading?

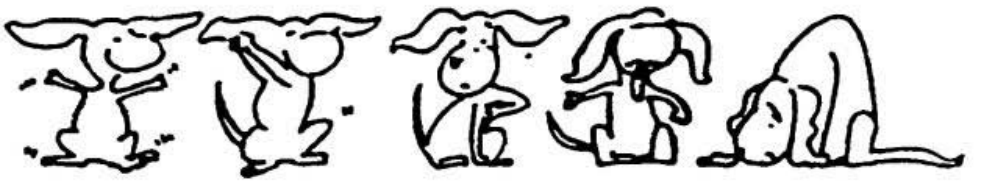
7. How do you feel when it is time to do your worksheet?

8. How do you feel about going to school?

9. How do you feel about how well you can read?

10. How do you think your friends feel about reading?

11. How do you think your teacher feels when you read?



12. How do you think your friends feel when you read out loud?

13. How do you feel about the reading group you are in?

14. How do you think you'll feel about reading when you're bigger?

Appendix B

Reading and Writing Knowledge Questions

Questions taken from variety of reading and writing assessment tools by D. Collier

MY WRITING

Things I know about writing that help me when I write:_____

_____

_____

Things I still need to learn to be a better writer:_____

_____

_____

Things that cause me problems when I write: _____

_____

_____

Things that make writing easier for me: _____

_____

_____

These are the kinds of things I like to write:_____

_____

_____

MY READING

Things I know about reading that help me when I read:_____

_____

_____

Things I still need to learn to be a better reader:_____

_____

_____

Things that cause me problems when I read: _____

_____

_____

Things that make reading easier for me: _____

_____

_____

These are the kinds of things I like to read:_____

_____

_____

Appendix C Phonemic Awareness Inventory
(taken from Avalon Consolidated School Board Literacy Binder, 1996, PA5-PA8.)

Phonemic Awareness PA-5

Phonemic Awareness Inventory

Auditory Discrimination

Ask the child to tell you if the words sound the same or different. Read each pair of words to the child. Each pair may be repeated twice.
Practice: Listen carefully to the words I say and tell me if they are the same or different.

cat cat
bet bed

Same	Different	
		fuss - fuss
		bat - bet
		stop - top
		glass - grass
		fin - fun
		bend - bend
		middle - middle
		hot - cot
		send - mend
		ride - write
		slip - slip
		way - wave
		ten - pen
		ladder - letter
		though - foe

Number correct: same:_____ different:_____ Total correct:_____

Phoneme Isolation

To determine if the child can identify and say a particular sound after hearing it in a word. Show the child how phonemes can be pronounced: fat starts with /f/, teeth has the /ee/ sound in the middle and work ends with the sound /k/. Ensure the child understands the difference between beginning, middle and end. Say the word to the child, then ask the child, "What sound do you hear at the beginning (middle, end) of this word?

Practice: I'm going to say a word and you tell me the sound it starts (ends) with {or has in the middle}. Let's try two for practice: Jack What does Jack start with?

cat What does cat end with?

jam	_____	sun	_____
snap	_____	sheep	_____
book	_____	house	_____
door	_____	dog	_____
bat	_____	bike	_____
yellow	_____	made	_____
cube	_____	ball	_____
top	_____		

Total Correct_____

Classroom Phoneme Blending and Segmentation Test (Taylor & Pearson)

Each one may be repeated twice.

A. Example: When I say c-a-t, can you tell me the word?

1	f - i - b		Teacher says f - i - b
2	s - e - t		Teacher says s - e - t
3	t - a - p		Teacher says t - a - p
4	j - o - g		Teacher says j - o - g
5	c - u - t		Teacher says c - u - t
6	s - o - f - t		Teacher says s - o - f - t

Total correct: _____

B. Example: When I say "sad" can you give me each sound you hear in the word?

7	s - i - p		Teacher says s - i - p
8	p - a - t		Teacher says p - a - t
9	t - u - b		Teacher says t - u - b
10	b - e - t		Teacher says b - e - t
11	s - k - i - p		Teacher says s - k - i - p
12	f - a - s - t		Teacher says f - a - s - t

Total correct: _____

Rhyme

Ask the child "Do you know what a rhyme is? Can you tell me two words that rhyme? If necessary, explain that rhymes are words that sound the same at the end, like walk-talk, full-pull, but not pink-road. Read the list to the child and ask the child to tell you if the words have the same or have different ending sounds.

Practice: I am going to say two words. Please tell me if they rhyme or don't rhyme.

hit bit

fun rug

fat--cat	_____	cake--take	_____
red--bed	_____	ear--cheese	_____
mice--bird	_____	light--sight	_____
head--house	_____	sand--land	_____
pin--win	_____	light--road	_____
duck--table	_____	seal--hair	_____
fable--stable	_____	henny--penny	_____

Total correct:_____

Appendix D

Cloze Procedure - Words

After students had tried to spell a number of words, the intern would present the student with the words with the incorrect letters missing (only one or two letters) and the student would be asked to provide the missing letters.

Example:

If the student misspelled the word 'dog' as 'dok', the intern would present:

d o __.

*Words were taken from the student's writing, books the student had read, or from Inventory lists of words

Appendix E

Goal-Setting

In school I would like to do better in:

1. _____

2. _____

3. _____

Appendix F

Informal Language Test

(Dr. M. Glassman adaptation)

1. Choose 3-6 action pictures (variety)

2. Student chooses 2 pictures to talk about

    -discuss what and how of choice

    -discuss how choices made (Why these? Why not these)

3. Student chooses

    1 picture to talk about while able to look at it

    AND

    1 picture to look at, put away, and then talk about

        - discuss why of choices

4. Student chooses which picture to talk about first

    - discuss why

5. Choice #1 - unaided recall

    - prompted recall

6. Choice #2 - unaided recall

    - prompted recall (i.e. Do you want to tell me astory?)

Make note of the following:

a. level of general meaning

1 - naming

2 - description

3 - interpretation (not organised)

4 - narrative interpretation

5 - evaluative interpretation

b. sentence structure

c. quality of speech

d. spontaneity and expressiveness

INFORMAL LANGUAGE TEST - RECORD KEEPING

Date: _____ Time: _____

Duration: _____ Class missed: _____

1. a. Two choices made:

1. 2.

b. Reasoning behind choices:

Why #1 and #2:

Why not others:

2. a. Picture to look at when needed:

Picture to look at and put away:

b. Reasoning behind choices:

3. a. First picture to tell about:

Second picture to tell about:

b. Reasoning behind choices

4. First choice:

a. unaided:

a. level of general meaning

1 - naming

2 - description

3 - interpretation (not organised)

4 - narrative interpretation

5 - evaluative interpretation

b. sentence structure

c. quality of speech

d. spontaneity and expressiveness

b. prompted:

a. level of general meaning

1 - naming

2 - description

3 - interpretation (not organised)

4 - narrative interpretation

5 - evaluative interpretation

b. sentence structure

c. quality of speech

d. spontaneity and expressiveness

5. Second choice:

a. unaided:

a. level of general meaning

1 - naming

2 - description

3 - interpretation (not organised)

4 - narrative interpretation

5 - evaluative interpretation

b. sentence structure

c. quality of speech

d. spontaneity and expressiveness

b. prompted:

a. level of general meaning

1 - naming

2 - description

3 - interpretation (not organised)

4 - narrative interpretation

5 - evaluative interpretation

b. sentence structure

c. quality of speech

d. spontaneity and expressiveness

Appendix G

Reading and Writing Attitudes

* questions compiled by D. Collier

READING:

1. What does a good reader do?

2. Who do you know who is a good reader?

    Why are they a good reader?

3. Are you a better reader than you were at

    Christmas time?

        How do you know?

4. What kinds of books do you like to read?

5. Do you like to read at home?

    at school?

WRITING

1. What does a good writer do?

2. Who do you know who is a good writer?

    Why are they a good writer?

3. Are you a better writer than you were at

    Christmas time?

    How do you know?

4. What kinds of things do you like to writer?

Appendix G (continued)

5. Do you like to write at home?

at school?

Appendix H

Self-talk Questionnaire

* questions compiled by D. Collier

1. Do you remember the four questions we can ask ourselves when we have some work to do? What are they?

2. Do you use these questions?

   When do you use them?

   When could you use them?

3. How can using these questions help you?

4. Is there anything wrong/hard with using these questions? Is there anything you would change?

Appendix I

Self-talk Procedure

* procedure developed by D. Collier in consulatation with supervisors

1. Have you ever talked to yourself?

    - list ideas

    - give a personal example

2. Introduce four questions:

    i. What is my problem?

    ii. How can I do it?

    iii. Am I using my plan?

    iv. How did I do?

        - show cartoon and discuss contents

        - model personal example

3. Think-aloud instruction and practice:

    - colouring shapes

    - mazes

4. Decide on personal examples could use to role play.

Appendix J

Colouring Shapes/Tracing Mazes

(Cartledge & Milburn, 1980)

COLOURING SHAPES

Materials: **crayons**

paper with shapes

cue pictures

Think out loud on colouring shapes:

TEACHER: (show shape papers) You are very good at colouring. Let's practice thinking out loud while we colour. (Point to fattest bordered circle.) Our problem is to colour this shape the best we can without going outside the lines. Your problem is be a copy cat and copy just what I say and do. What is your problem?(Point to cue picture 1.) Good.

TEACHER: (Give children and yourself the paper of shapes to be coloured. Select the circle with a fat border first.) We each have a paper with some shapes on it. The problem is to colour this shape the best we can without going outside the lines. Pick a coloured pencil and I'll pick one.

TEACHER: Let's learn to think out loud to help us do this paper. Remember you must copy what I say and do. Let's try it.

TEACHER: (Holding crayon in air. The questions and answers are all to be copied by the child.)

Appendix J (continued)

Q. What is my problem?

A. I am supposed to colour this circle without going outside the lines.

Q. How can I do it?

A. I'll go slowly. I'll be careful. I'll outline the circle first. Then I can go faster in the middle. OK, here I go.

Q. (remind: Where is my copy cat?)

TEACHER:

Q. Am I using my plan?

A. Yes. I'm making a frame around the outside. I'm going slowly. Now I can go faster in the middle. (Cross line boundary). Oooops, I went too fast. I went outside the line. That's OK. I'll be more careful. I'll go slower. There I did it.

Q. How did I do?

A. I tried hard. I went slowly. And I learned something. Is it a good idea to colour fast?

CHILD: _____

TEACHER: (Teacher models thinking out loud on a different shape while child copies. Child tries to think out loud while tracing shape.

TRACING MAZES

TEACHER: I have a new problem for us today. We are going to make trails. What is a trail?

Appendix J (continued)

CHILD:_____

TEACHER: Yes, it is like a small road where motorcycles can go or where people can hike. (Show trail A). The problem is to draw a trail from #1 to #2 to #3 to #4 and so on without lifting your pencil from the paper. I'll try the first one. You be the copy cat.

TEACHER:

Q. OK. What is my problem?

A. I need to draw a trail to each number in order -- like 1, 2, 3, 4 --without lifting my pencil from the paper.

Q. How can I do it?

A. Before I draw a line, I'll find the next number I have to go to. That's how thinking out loud will help me. I could go fast but I might make a mistake, so I'll go slow.

Here I go. (pick up pencil) Here's #1 -- that's where I start. Now my plan -- I'll find #2. Good, here it is (hold finger on #2 and draw a line to it.) #3 -- Yep. Good, I'm going slow and I'm planning ahead.

(while looking for #4 lift pencil off of paper. If children don't catch you, say:) Oops. I'm supposed to keep my pencil on the paper. That's kind of hard.I better remind myself -- keep my pencil on the paper. (holding pencil on paper),

Appendix J (continued)

OK, now where do I go? I'm at #3 so I better find #4. Yep. (from #4 go directly to #6 without planning. When recognize error, feign anger and slam pencil on desk.) I did it wrong. I didn't plan ahead. I can't even do this. (pout, then calm yourself). Well I just went too fast. I knew I'd make a mistake if I went too fast. If I slow down I can do all right. (place pencil back at #4).

Q. Am I using my plan?

A. Yes, I'm looking ahead. There's #5 -- that's where I need to go. I feel better now -- I'm doing a good job. After 5 comes 6. Good. And that's how we do the trail. I'll let you have a turn now.

Q. How did I do?

A. I got kind of mad, but then I slowed down. I did better when I planned ahead. I wasn't very good at keeping my pencil on the paper.

TEACHER: You try making a trail (hand children another short trail - review cartoon. Point to pictures during verbalizations)

(when they finish the sample, hand children trail B with numbers 1 through 15.) Here's a problem with more numbers. What plan will help you do this problem?

Is it a good idea to go fast on this problem?

(other trails - listen for talking aloud - model other plans -- looking ahead -- planning from beginning or end? --tracing with fingers from two ends -- try with eraser first)