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Integrated intervention in a second grade classroom

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INTEGRATED INTERVENTION
IN A SECOND GRADE CLASSROOM

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Abstract

Through the presentation of an integrated intervention program an attempt was made to minimize difficulties with the reading process experienced by eight underachieving grade two students. The literature review presented suggested that early reading acquisition had always been associated with developmental strengths in the visual, auditory and motor modalities and in oral language facility. The integrated intervention program focused on activities for developing these areas through the presentation of the McInnis structure for acquiring alphabetic coding and decoding skills, language processing skills, spatial and directional skills and a specific language of instruction. This structure was presented using the Nelson Networks grade two language arts content and the students' oral and written language. Through daily presentation, using a small group context, students were involved in an integrated grade two program for a four month period. This program resulted in growth in the visual, auditory and motor modalities and in increased oral language facility. It resulted in minimizing or eliminating difficulties with reading acquisition for all eight students. Pre and post testing indicated increased achievement levels with all eight students achieving at or near their expected grade level.

Acknowledgments

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INTRODUCTION

Integrated Intervention in a Second Grade Classroom was an attempt to present a primary language arts program which would minimize difficulties with the reading process experienced by underachieving grade two students and which could result in a decrease in the number of students who would require special reading programming in the future. This project presented an intervention program for eight grade two students who had experienced difficulties and failures with the process of developing skills associated with reading or writing text. This program had characteristics of the pre-1978 and 1978 language arts era in that it presented a structured and comprehensive scope and sequence for teaching alphabetic coding, decoding skills, spatial and directional skills and a specific language of instruction. This scope and sequence was derived mostly from the McInnis Assured Readiness for Learning Program (1995). This program had characteristics of the 1990 language arts era in that the students developed their cognitive and composing skills through constructing and exploring with the various components of the Nelson Networks grade two language arts program. Most importantly this program had characteristics of an integrated language arts program. The Nelson Network's wide range of text and language and the students' oral and written language were integrated into the context of the vast amount of drills, activities and repetitions which were associated with exposures and reinforcements of content relating to alphabetic coding, word analysis and word identification. Some research (Bateman (1977) suggested that some children require 1500 to 5000 reinforcements or exposures before they can achieve competency with some aspects of alphabetic coding. A concentrated effort was made

throughout the project to present these daily reinforcements or exposures through drills and repetitions using the visual, auditory and motor modality.

The remainder of this paper is a literature review which provides support for presenting activities which result in the development of visual, auditory and motor modalities and in increased oral language facility. This review is presented historically in three sections, pre-1978, 1978 and 1990. A report of local inquiry is included because it is representative of the project community, the project school and the project participants. Four U.S. intervention programs support some of the project framework and are described briefly. This is followed by a description of the project program which includes characteristics of the Nelson Networks Program and a description of the McInnis Assured Readiness Program components which were integrated into the instructional program. Presentation of this program is also described in some general terms. Project results are presented and include a brief description of the tests used. A student profile indicating performance on pre and post tests is presented in table form. This is followed by a student pre/post profile which presents identified student strengths and weaknesses and student performance observations. Concluding statements are presented followed by some general implications for future reading programming.

LITERATURE REVIEW

HISTORICAL PERSPECTIVE

The process of reading has always had strong association with visual, auditory, motor and oral language development. These associations were presented using a variety of terminology. Terminology representing the visual modality centered around terms such as visual perception, eye span, visual memory, left to right orientation, visual discrimination and visual ground discrimination. Terminology representing the auditory modality centered around terms such as auditory perception, auditory discrimination, auditory blending, auditory memory, auditory integration and auditory comprehension. References to associations between various motor areas, motor coordination of hand and eye movement, directional movement, tactile and kinesthetic methods, and tactile and kinesthetic learning were all associated with the motor modality. References to speech abilities, oral language development and recognition of word meanings were suggestive of association with oral language facility. The following review provides some support for having the development of these four areas as an objective of an intervention reading program.

Pre-1978 Era

The pre-1978 era was characterized by the belief that children had fixed biological endowments that enabled them to develop highly articulated systems of knowledge. Teachers had to concentrate on the conditions and practices which resulted in success with the reading process. Childrens' reading readiness with references to visual and auditory discrimination, attention spans, motor or kinesthetic skills and experiential

background became a subject for debate and research. This was the era of research based on correlation and experimental designs in an attempt to establish the patterns of and the relationships between what we wanted in a language arts program and how, when and where we presented that program in a way that would fit the fixed biological endowment of each child. Reading as a process continued to require very precise phonological elements obtained through a presentation of a highly structured sequence. Failure with the process was often associated with weaknesses in the visual, auditory and motor associations or with the lack of early involvement in oral language activities.

Huey (1908) conducted studies showing the significance of visual perception in the process of reading. Huey demonstrated the significance of the first half of a word for perception; his studies showed that this portion of a word was much more helpful than the latter half of the word. Huey, in his further studies, also demonstrated the importance of the top halves of letters in facilitating visual perception.

Young (1927) included the following among the objectives of reading instructions: increase in vocabulary, eye span and comprehension, development of rhythmic eye movements, reduction of regressions and fixation, rapid reading of easy materials and intense concentration for short periods.

Judson (1954) developed an integrated program of improved comprehension and speed. Judson suggested the use of activities for developing visual skills to improve eye span, left to right orientation and phrase capturing.

Keshian (1961) demonstrated that reading success is found throughout socioeconomic groups. Keshian indicated that the families of good readers fostered

success in reading by regular reading to their children and by regular involvement of children in oral language activities.

Mingoia (1962) strongly emphasized the sociocultural determinants for reading success. Mingoia stated, "the typical extreme underachiever is a boy who comes from a home experiencing cultural and economic deprivation. The home history indicates little language training which would have stimulated conceptual thinking, vocabulary development and appreciation for stories and language" (p. 223). Mingoia's description suggests the need for a strong oral language component for early reading acquisition. A similar need was identified by Lampard, McGregor and Dravland (1972) in a study done in Pincher Creek, Alberta.

Dechant (1964) in his text, Improving the Teaching of Reading, presented some early information concerning the brain and its projection and association areas. Dechant described reading as a complex process involving various types of associations among the visual, auditory, language and motor projection areas of the brain. He emphasized the importance of oral reading, not only because of its social value, but because of its requirement of all the sensory and perceptual skills required in silent reading.

Spache (1967) talked about a Holmes and Singer study (1961) which provided many clues for the context, sequence and scope of a developmental reading program. Spache credited Holmes with a tremendous effort and project in identifying the factors underlying success in reading. Among these were factors such as matching sounds in words, blending word sounds, auding vocabulary and auding memory for stories, visual

verbal abstraction and phrase and word perception discrimination. These factors all deal with associations between visual, auditory and oral language development.

Schubert and Torgerson (1972) suggested that there were three methods for teaching words to disabled readers. These methods were the visual, the phonic and the kinesthetic ones. In a final analysis Schubert and Torgerson stated, "if there is a best method, we are forced to term it eclectic. When an individual method is used to the exclusion of others, some children are doomed to failure, regardless of how sincere, competent and enthusiastic the teacher is" (p. 183).

1978-1990 Era

The 1978-1990 era represented various shifting ideology. The structured skills representative of the pre-1978 era still existed but their purpose had changed. Students now learned those skills so that they would analyze, predict, hypothesize, synthesize, summarize, etc. The learning of skills occurred in a child-centered environment with teachers responsible for the preparation of activities, strategies and even individual student books which were to replace workbooks and basal readers. Student growth in this era began to show signs of observable qualitative growth (children's books, expressive language), however, quantitative measurement was a constant during this era. This was the era of objective based curriculums where a child's promotion could depend almost entirely on mastery of a specific scope - sequence of objectives. During this era the teaching of reading continued to demand a considerable focus on decoding skills and a considerable emphasis on the development of visual, auditory, and motor modalities and oral language facility.

Clay (1979) described reading as a process by which a child can extract a sequence of cues from printed texts and relate these, one to another, so that he/she understands the precise message of the text. Clay listed the following four abilities required for success with the reading process: (p. 10)

(i)   The child must have good control of oral language.

(ii) He must have developed skills of visual perception.

(iii) He must have reached the level of brain maturity and experience which enables him to coordinate what he hears in language with what he sees in print.

(iv) He must have enough movement flexibility, or motor coordination of hand and eye so that he can learn the controlled directional movement patterns required for learning.

Durkin (1976) emphasized that the value of correct word identification depends on the decoder's ability to move from a pronunciation to recognition of the word's meaning (p. 121). When a reader is faced with an unfamiliar word, he/she uses syntactical and semantic clues beginning with root words, prefixes and suffixes. The reader can use graphophonic cues to divide words into syllables or chunks. Both a correct or an incorrect identification requires a return to the context in which the unknown word was found. Durkin's implication that poor word identification skills results in loss of time and speed as well as in poor comprehension was presented again by Stanovich (1994) in his studies regarding phonemic awareness and automaticity.

Flood and Lapp (1981) presented various language/reading tests useful for diagnostic purposes. The majority of the tests concentrated on visual perceptual tasks,

motor perceptual tasks, auditory discrimination and auditory memory tasks and oral language activities.

Kavali (1981) published a study on the relationship between auditory perceptual skills and reading ability. Kavali reviewed 106 studies to find a total of 723 correlation coefficients, of which 447 were descriptive of the relationship between auditory perceptual skills and reading ability. The five major skills associated with auditory perception included auditory discrimination, auditory blending, auditory memory, auditory visual integration and auditory comprehension. Kavali reported that the statistical integration of individual study findings indicated that auditory perception is an "important sector in the complex variables related to reading ability" (p. 545).

Smith (1988) emphasized that there were three important implications for learning to read. These were: (1) reading must be fast, (2) reading must be selective and (3) reading depends on what the reader already knows. Smith suggested that although visual activity was part of the reading process, it required a lot of non-visual information. Smith maintained that slow reading interfered with comprehension. He suggested that reading could be accelerated not only by visual processing but by reducing dependency on visual processing. This would establish a need for effective vocabulary and oral language instruction for easy reading acquisition.

Durkin (1989) highlighted the importance of oral language development. She suggested that the usefulness of phonic instruction depends on the state of the reader's speaking or oral vocabulary. If a word is unfamiliar in spoken form, the reader who can sound it out will not understand the word any better than the reader who cannot sound it

out. Decoding ability, according to Durkin, is dependent on oral language. Students use letter-sound correspondences and visual features that suggest sounds to accomplish the following four tasks: (p. 249)

(i)   make decisions about syllabic divisions and letter-sound correspondences

(ii)   blend the sounds in each syllable

(iii)   compare the pronunciation that results with words that are stored in auditory memory

(iv)   decide if it is a recognizable word that is appropriate for the given context.

Carbo (1987) stated that "too many students are victims of the unspoken presumption that there is one right way to teach all children to read. But the research on child development and reading styles indicates that what is 'appropriate' for one student may be damaging to another" (p. 197). Carbo stated that many poor readers are predominantly global, tactile and kinesthetic learners. These learners are usually reading dropouts of programs that demand strong analytic/auditory reading styles. Carbo suggested that "young boys may be at greater risk in reading programs with a strong emphasis on listening, worksheets and phonics, since they tend to have less well developed auditory and verbal skills and they tend to learn through kinesthetic activities longer than their female counterparts" (p. 200). Carbo stated that boys outnumber girls 4:1 in special reading classes and in classes for the learning disabled. Carbo's observation was similar to Lampard and Dravland's study (1972) and her numbers are fairly representative of the reading programs found at Canyon Elementary School.

The 1990's

The 1990's witnessed a shift within the language-reading field. This shift was more than a framework for viewing language; it was a framework for viewing the world. "Whole language has human emancipation as its goal" stated Shannon (1992), a strong advocate for whole language. Giroux (1992) outlined the shift towards this goal and suggested that the pedagogical route to this goal is a process one, moving from meaning to critique to emancipation. The 1990 era began with a shift in focus. The child's language and experiential background still provided the focus for instruction but it was the child's whole language and his/her meanings and his/her emotional, social and cognitive experiences which provided the context for instruction. In the 1978 program the context or reading material used for instruction was text generated by children which was recorded for them by teachers. In the 1990 program children were placed in language situations which allowed for experiences with a wide range of text. The children used their emotional, social and cognitive experiences to make some meaning of the language situations. They obtained meaning from their experiences by exploring, constructing and communicating. In this program teachers were not viewed as presenters of fixed curriculum but as reflective or empowered teachers who could adjust learning environments, materials and strategies to maximize learning. In this program students developed and applied language processes and skills in relevant contexts in order to make meaning from text. Reading was one of the modes through which students demonstrated language processes and skills.

Tompkins and Hoskisson (1991) make reference to four language systems, the phonological, syntactic, semantic and the pragmatic, stating that children develop knowledge about these four systems implicitly. According to the authors, children develop the phonological or sound system as they learn to pronounce each of the approximately 40 English speech sounds. Children learn the syntactic system as they combine words to form sentences and learn to comprehend and produce statements, questions and other types of sentences during the preschool years. Children acquire the semantic components as they learn to talk. Children are involved in learning the pragmatic system which deals with the social and cultural aspects of language use. Tompkins and Hoskisson state that, "as children learn to talk, read, and write, they learn to control the phonological, syntactic, semantic and pragmatic language systems" (p. 10). They present ways to involve students in talking, reading and writing activities so that they can learn to control these systems. At the end of their text (Appendix x) they present a statement from The Reading Teacher (1986). Within this statement is a concern that "two much attention is focused upon isolated skill development or abstract parts of the reading process rather than upon the integration of oral language, writing and listening with reading". Within this joint statement is a recommendation to "encourage children's first attempts at writing without concern for the proper formation of letters or correct conventional spelling".

It is difficult to find fault with Tompkins and Hoskisson's suggestion that children develop the four language systems implicitly and that children develop the phonological or sound system as they learn to pronounce the speech sounds. It is difficult to find fault

with the various ways of involving students in talking, reading and writing activities so that they can learn to control their language systems. However, it might be appropriate to question the omission of the isolated skill development or the focus on the abstract parts of the reading process which had previously received "too much attention". It might be appropriate to encourage children's first attempts at writing with at least some concern about letter formation and conventional spelling. It might be appropriate to pose several questions. Where within the text context is the reading process as it has been articulated over the past century? Where within this context, will students acquire the competency and automaticity required, particularly in the visual, auditory and motor modalities? Where within this context, is there a role for the early development of phonological awareness which appears to play a causal role in reading acquisition? (Stanovich, 1994).

Stanovich quoted many studies and presented his own research that suggests a causal relationship. Stanovich presented the term "phonological awareness" which he refers to as the "ability to deal explicitly and segmentally with sound units smaller than the syllable" (p. 283). This phonological awareness is indicated by performance on various generic types of tasks associated with phonics. These tasks according to Stanovich are the "best predictors of the ease of reading acquisition - better than anything else that we know of, including IQ" (p. 284). Stanovich claims that his "seven minute phonological awareness test will predict ease of initial reading acquisition better than the two-hour intelligence test" (p. 284).

Phonics instruction has long been a focal point for debate among reading professionals and researchers. It has been the issue behind the vast research and

summaries which resulted in the Great Debate (Chall (1967/1983). It has been the issue which resulted in a U.S. National Report (Anderson et al, 1985, U.S. Department of Education, 1986) and a publication entitled Beginning to Read (Adams, 1990) produced by the U.S. Center for the Study of Reading which found support for phonic instruction. Some educators believe that this support has resolved the issue of teaching phonics. If so, we are now left with the issue of how to teach phonics.

Alberta Education's Language Learning program of studies (1991) contains a rationale and philosophy, general learner expectations, and specific learner expectations. It contains fourteen language learning concepts and eighty-nine learner expectations. "The language learning expectations focus directly on what students are able and willing to do with language itself" (P.A.1). The program of studies states that "teachers provide instruction and shape the learning environment which directly influences the course of students' language learning". Does this imply a skills instruction component? Where would beginning teachers gain the skills and knowledge for basic skill instruction to enable them to shape and influence student acquisition of reading facility? What would compel teachers using a theoretical 'whole language' philosophy to include skill instruction in their programs?

REPORT OF LOCAL INQUIRY

Some local literature is available which demonstrates the strong associations between visual, auditory, motor and oral language developments and success with the reading process. Canyon Elementary School in Pincher Creek, Alberta, was a participating agency in a study conducted by the University of Lethbridge (1972) in an attempt to develop a communication model for agencies which would increase their effectiveness in meeting the learning needs of primary school children. The researchers, Lampard, McGregor and Dravland (1972) suggested that a child's success in school is very dependent on physical and neurological needs. They provided definitions and tested areas such as visual and auditory acuity and visual, auditory, motor and language aptitudes. Their results suggested that although neither visual nor auditory acuity problems appeared to exert a statistically significant effect on student achievement, under development in skill areas such as visual letter memory, auditory discrimination, auditory memory, spatial establishments and oral language facility did have significant effects on student achievement.

Lampard, McGregor and Dravland (1972) measured student learning skills by tests which included the Schonell Graded Word Reading Test, the Schonell Graded Word Spelling Test, the Roswell - Chall Diagnostic Test of Word Analysis Skills and open-ended comprehension test questions. Their results suggested that the scores of students in low reading groups were well below their expected grade levels and that these groups showed a much slower rate of growth in reading over a period of two years. The researchers stated that "if this pattern continues, the low group will fall further below the

class mean" (p. 74). This statement was later generalized by Stanovich (1986) into the Matthew effects - the poor - get - poorer effects embedded in the educational process.

The 1972 study resulted in a three year <u>Fluency, Flexibility and Family Group</u> project whose objectives included increasing oral language fluency, raising the achievement level of children beyond the 1972 levels and reducing the incidence of boys in low learning groups. Lampard and McGregor (1976) evaluated the project and concluded that although advanced performance was noted by many students, a large number of grade one and two students were still reading below grade level. The evaluators noted substantial improvement in language facility as measured by the Dailey Language Facility Test (p. 12) but they did express concern for the students reading below grade level.

EARLY INTERVENTION PROGRAMS

A lot of effort, time and money have gone into traditional remedial programs in the U.S., which according to many researchers, have had positive but marginal impact on attempts to eliminate reading failure. Spiegel (1995) presented research which demonstrated that children in remedial programs showed gains in achievement but these gains have resulted only in a few strides in closing the achievement gap with their peers. Spiegel suggested that despite massive infusion of money into public schools, many literacy needs of children in the U.S. are not being met.

It is difficult to find research figures or articles dealing with the remedial scene in Canada, but one can generalize about the scenes which one has been involved with. Many students who have had difficulty with early reading acquisition and who have ended up in remedial or resource rooms, have remained in similar school settings and have required alternate programs throughout their school years. Remedial programs and alternate programs have been costly. With limited finances, much effort, time and money has been switched to intervention and prevention programs. Four U.S. intervention programs present some similarities in focus to the components of this intervention reading project.

Reading Recovery Program

The Reading Recovery program was originated by Marie Clay (1985) in New Zealand. It is founded on the belief that although reading acquisition is innate, some children experience great difficulty with the process and require assistance. Reading Recovery provides one-to-one tutoring to the grade one students who score in the lowest

20% of their classes on a program-developed diagnostic survey. These students are tutored for thirty minutes each day by certified teachers who receive training for 2.5 hours per week for an entire academic year. Each tutored lesson begins by rereading familiar books, followed by a book which was introduced the day before. During this reading, the teacher takes a 'running record' of the type of strategies the child uses for word recognition and for extracting meaning. By monitoring which strategies work for a child and which do not, the tutor can individualize instruction. After reading, the child writes a message of a few sentences, usually about the story. The tutor provides assistance as necessary, writing words for a child to copy or actually writing the difficult words for the child. After the writing, the teacher instructs the child, focusing on developing effective reading and writing strategies including knowledge of sounds and letters, directional movement and the utilization of multiple cue sources such as meaning, order, sign, sentence structure, special knowledge and first, last and other directional cues. By integrating meaning, structural and visual cues, the child becomes self-monitoring, increasing reading speeds and reading accuracy. The Reading Recovery program is not an alternative program; it is presented as an addition to the regular classroom program. Various strategies are utilized to try to maintain congruence between the two programs. When the set goals for a child on Reading Recovery are met, the child is discontinued from the program. If a child receives sixty lessons without achieving this goal, they are removed from the program and put on special classroom programs.

In order to master the process of reading, Clay suggested that the child must have good oral skills, good perceptual skills, the physiological maturity to coordinate visual

and auditory stimuli, and enough hand-eye coordination to learn the controlled, directional patterns necessary for reading.

Various research has been conducted on Reading Recovery. Pinnell (1989) concluded from the research for the first three years of an Ohio State Reading Recovery Project that "two-thirds or more of children who receive a full program make accelerated progress and perform within the average range for their classes. Children retain their gains and continue to make progress at least two years after the intervention" (p. 175).

Wasik and Slavin (1993) reviewed five programs, including Reading Recovery, designed to prevent early reading failure. Their analysis of Reading Recovery indicated that "those students categorized as discontinued, were performing on average at a level like that of their class as a whole, and substantially better than the comparison group of low achievers. On the other hand, all of the not discontinued students (who had at least 60 tutoring sessions but failed to achieve at the level of the rest of their class) were still below the level of their classmates by third grade, and were substantially lower than the control group" (p. 185).

Wasik and Slavin do present some methodological issues about the Reading Recovery research (p. 187). There is an articulation between the Reading Recovery program and the measures used to evaluate the program which may influence results of students on Reading Recovery. Children tutored in Reading Recovery were also more familiar with the assessment than were the children in the control group. Because Reading Recovery has a policy of not serving students who have already been retained in first grade as well as students identified for special education, some students originally

selected for tutoring failed to make adequate progress in early sessions and were then removed from tutoring, with the possibility of influencing the remaining sample. Wasik and Slavin suggest that cost is the major drawback to the type of tutoring required for Reading Recovery. However, they suggest that if we can, through this type of early intervention, help students to be successful instead of failing in reading, this expensive intervention may be cost effective in the long run.

Success for All Program

Success for All is a comprehensive school program from kindergarten to grade three which focuses on regular classroom instruction and supplementary instruction. The program is designed primarily for schools serving large numbers of disadvantaged students and has other elements such as readiness programs and family support services. The components of the reading program include oral language proficiency, prior knowledge, perceptual analysis, decoding, various error detection and error correction strategies as well as various comprehension strategies. Within this program grade 1 to 3 students are grouped heterogeneously in groups of about 25 students, except for a ninety minute daily reading period, in which they are all regrouped by reading level across all three grades in groups of 15 to 20 students. Students experiencing reading difficulty receive an additional 20 minutes of individual tutoring. Wasik and Slavin (1993) state "that the tutoring model is completely integrated with the regular classroom program" (p. 189). The tutors are certified teachers who receive two days of training to teach this program. Each tutor then spends the rest of the day tutoring three children per hour. Each tutoring session is structured, but the tutor is continually diagnosing and assessing

individual needs. Wasik and Slavin present results which indicate powerful effects achieved by the combination of tutoring, curricular changes, and family support services (p. 190). In addition to improved reading achievement, the schools involved reduced the number of students assigned to special education and the number of retentions.

Prevention of Learning Disabilities Program

Wasik and Slavin (1993) describe the Prevention of Learning Disabilities Program developed by the Learning Disorders Unit of the New York University Medical Centre (p. 191). Grade one and two students involved in this program are screened using an instrument that focuses on neurological indicators of learning disabilities and on perceptual and general immaturity. These students then receive individual or small group lessons designed primarily to build perceptual skills such as discrimination, copying, recognition and recall. These lessons are administered by certified teachers in thirty minute sessions, three to five times per week. The essential components of these reading lessons include the perceptual analysis of print, decoding and oral language proficiency. Wasik and Slavin state that "there is no coordination with the regular reading program and there is no emphasis on reading connected text and no systematic presentation of phonics" (p. 192). Some presented studies using the program do show increased performance in oral reading, word identification, and word attack skills. One 1990 study shows that students on this program did not perform any differently than control groups.

Assured Readiness for Learning

The Assured Readiness for Learning program (ARL) is both developmental and remedial in scope. It was developed by P. J. McInnis (1991) and revised in 1995. The program is not intended to be a complete reading program; it is intended to supplement

the regular classroom program. The program is built around activities which allow for multi-sensory input with emphasis on self and directionality. Before children are required to deal with symbolic materials, they learn to make precise observations about time and space and have to relate them to objects and events. McInnis advocates the use of blindfolds to enhance imagery of concepts and letters and to help the child focus their attention. He also advocates the use of teaching cursive writing rather than manuscript suggesting that cursive writing is an easier pattern. ARL presents a structured, continuous yet, supposedly integrated approach to the development of the alphabetic principle. No formal assessments of ARL are available, although McInnis does suggest that several schools are experiencing positive results with the program. Several aspects of this program were included in this project and will be presented under the project program description.

SUMMARY

The historical review, the report of local inquiry and the description of the four U.S. intervention programs provided support for the inclusion of activities which allowed for multi-sensory input into beginning reading programs. Strengths in the auditory, visual and motor modalities appeared to be important to the development of the perceptual skills and the alphabetic coding and decoding skills required for early reading acquisition. Student oral language proficiency appeared to be necessary because it provided the context through which these skills could be developed. The early intervention programs which appeared to have been the most successful were those which had emphasized these developments. The development of visual, auditory and motor modalities and oral language proficiency was a focus area throughout the presentation of this integrated intervention project.

PROGRAM DESCRIPTION AND PROGRAM PRESENTATION

Networks and ARL

A brief examination of the objectives and the structure of the <u>Nelson Networks</u>

<u>Program</u> and the <u>McInnis Assured Readiness for Learning Program</u> demonstrated the

differences between the context and the focus of the two programs and helped to illustrate

the possibility for meaningful integration.

The material for <u>Networks</u> is divided into four units. The teaching suggestions for

each unit are organized into themes consisting of a theme review and lesson plans. The

grade two components include a teacher's planning guide, four anthologies, activity

books for each anthology, a Big Book, four independent readers and a set of action pack

Blackline Masters. The anthologies present a variety of thematic narrative, poetic and

informational selections which should enable most children to have successful shared or

independent reading experiences. The activity books engage children in learning

activities through which they develop their composing and thinking skills. The Blackline

Master activities contain manipulative activities in which the children develop their

problem solving skills, and carry out many composing activities. The Big Book is

intended for shared reading and the independent readers provide additional reading

experiences for children. The planning guide is a comprehensive document which

includes extensive lesson plans. Throughout this planning guide phonics is viewed as

only one of several available strategies which will enable children to become flexible,

independent readers. Throughout the entire program children are expected to "call into

play their knowledge of sound-symbol relationships as they attempt to make sense of the text" (p. 26). Reference to activities for developing sound-symbol relationships was found in less that a dozen activities throughout the seven units used for this project.

P. J. McInnis (1995) describes the ARL program as a comprehensive readiness program designed primarily for K-1, but also useful as a supplemental program from the middle of grade one through twelfth grade. McInnis suggests that there are three necessities for children before they can become competent readers. First, they must learn the sounds of letters and how to put sounds together. Then, they must learn to blend these sounds in a manner that is consistent with the instructional reading program . He suggests that there are three blending systems; the CVC, the CVC/CVCE and the CVC/CVCV. Finally, children must be able to develop an image, then visualize and revisualize. P. J. McInnis suggests that both experience and research tells us that young children learn most appropriately by comparing and contrasting their senses. He advocates the use of "cognitive training which implies that there is an integration of visual, auditory and motor training with the addition of language modifiers" (p. 4).

After an examination of both the Nelson and the McInnis programs, aspects of the following content were selected and integrated into the project program.

- A very structured and detailed approach towards language processing and phonemic awareness including the following levels:

Level A	Symbol (cube) to Word Matching
Level B	Sound to Word Matching
Level C	Word to Word Matching

<u>Level D</u>	Two Syllable Segmentation: Compound and Two Syllable Words
<u>Level E</u>	Three Syllable Segmentations
<u>Level F</u>	Omitting the Initial Phoneme in a Word
<u>Level G</u>	Substituting the Initial Consonant in a Word
<u>Level H</u>	Substituting the Initial Phoneme of a Consonant Blend
<u>Level I</u>	Omitting the Final Syllable in a three Syllable Segmentation
<u>Level J</u>	Substituting either a Short or Long Vowel in the Medial Position in a Word
<u>Level K</u>	Substituting the Second Phoneme in a Consonant Blend
<u>Level L</u>	Substituting the Final Consonant in a Word

- The presentation of 230 decoding keys and the inclusion of one minute activities which assist in learning beginning sounds of letters, putting these sounds together, blending these sounds and developing word imagery and visualization processes.

- The presentation and utilization of a language of instruction which requires children to learn to make precise observations about time and space and how to relate them to objects and events. This includes the presentation of a list of 54 directional terms such as, vertical/horizontal, top/bottom, middle/inside, left/right, etc.

- The presentation and utilization of a language of instruction where children move from low-level cognitive functioning, visual and motor tasks, to higher levels of cognitive functioning, which results in the ability to classify, categorize, seriate and deal with more abstract symbols. Through this language of instruction, children learn to attend

to detail, to label the detail they perceive and to gain control of their visual and auditory world through language.

- The use of blindfolds to enhance imagery and focusing attention. This includes the use of an imaginary chalkboard, inside the child's forehead, which the child uses to visualize and revisualize.

Program Presentation

The integrated program had some general programming characteristics. The eight participating students came to the resource room for their language learning instruction. The time for this instruction was the regular language learning time (76 minutes per day). The eight students presented a small group which provided for both individual and group instruction and individual and group participation. The yearly time line for unit presentations and the scope sequence was prepared by the regular grade two teacher. Frequent communication ensured that the regular class students and the project participants moved through the curriculum at a similar pace. The intervention program focused on the regular grade two program. The same texts, workbooks, reviews, tests and activities were still the basis for instruction and evaluation. Both the regular classroom teacher and the resource room teacher were involved in monitoring and assessing student progress and in communicating between the home and the school. The integrated intervention program was presented over a four month period, from September to December, 1996. During this time, all five of the Networks themes in Unit 5 and the first two themes of Unit 6 were used for reading programming.

The integrated intervention program was presented to eight project participants. The project participants were identified by the grade two teacher and by the project teacher. The identification was based on an examination of test results and on observation of student performance. After a review of all of the test results, and particularly after a review of the McInnis Sound Symbol Test and the McInnis Language Processing Test, the following were integrated with student language and Nelson content and presented through various drills and activities using visual, auditory and motor modalities.

(a)   review of the basic 26 sounds found on the McInnis Sound Symbol Test as well as the long vowel sounds;

(b)   a review of consonant digraphs;

(c)   a review of the 27 blends from the McInnis Test;

(d)   the presentation of McInnis Keys;

These keys were chosen to coincide with the core vocabulary found in the various thematic narrative, poetic and informational selections of the Networks anthologies. The scope and sequence of the keys for the four month period included the following word keys:

Key		as in	Key		as in
1.	ake	take	22.	ight	might
2.	et	met	23.	up	cup
3.	ame	tame	24.	ide	hide
4.	ice	mice	25.	ot	hot
5.	ay	day	26.	all	tall
6.	an	tan	27.	op	top
7.	eed	deed	28.	ay	day
8.	ade	made	29.	in	din
9.	ew	few	30.	eat	meat
10.	ank	tank	31.	ow	cow
11.	ing	ring	32.	and	land

12.	ive	hive	33.	ook	cook
13.	et	met (review)	34.	ime	time
14.	en	den	35.	are	care
15.	ell	cell	36.	ut	cut
16.	id	hid	37.	ast	mast
17.	at	cat	38.	ine	mine
18.	ack	tack	39.	ix	mix
19.	ad	tad	40.	one	cone
20.	eam	team	41.	own	town
21.	it	hit	42.	old	cold
43.	aise	raise	75.	oin	coin
44.	or	for	76.	out	pout
45.	ink	mink	77.	ape	tape
46.	ould	could	78.	ost	host
47.	isk	disk	79.	ock	lock
48.	ell	cell (review)	80.	ead	lead
49.	ust	dust	81.	augh	laugh
50.	oon	moon	82.	ean	lean
51.	oom	doom	83.	oat	coat
52.	ore	more	84.	ait	gait
53.	ood	hood	85.	ome	home
54.	ilt	tile	86.	ound	hound
55.	ole	mole	87.	ave	cave
56.	ide	hide (review)	88.	ap	tap
57.	ip	lip	89.	orn	corn
58.	ill	till	90.	ing	ring (review)
59.	im	him	91.	ow	tow
60.	ass	mass	92.	ouse	mouse
61.	awn	dawn	93.	ain	main
62.	end	mend	94.	ox	box
63.	ool	cool	95.	ail	pail
64.	ent	cent	96.	urse	purse
65.	ee	tee	97.	uff	puff
66.	ought	fought	98.	ug	rug
67.	ise	rise	99.	ump	dump
68.	en	den (review)	100.	ate	date
69.	ong	long	101.	ove	love
70.	eed	deed	102.	ife	life
71.	ick	lick	103.	ash	cash
72.	urn	turn	104.	ice	mice (review)
73.	ig	dig	105.	alk	talk
74.	eer	deer			

(e)   The presentation of activities found in Level A, B, and C of the language processing program. These were done as part of a review prior to the introduction of the first Networks theme.

(f)   The presentation of selected Level D, E, and F language processing activities. These were selected and presented, either as blackboard activities or scribbler activities and were integrated with the activities found in the Activity Books or the Blackline Masters.

(g)   The presentation of many Level G, H, and K activities found on pages 256 to 261 of the language processing program. These activities were used as warm-up activities and were correlated with the core vocabulary found in the Network Anthologies.

(h)   The presentation of just a few of the 56 activities presented for Levels H, I, J, K, and L found on pages 263 to 278 of the program.

McInnis stresses the need for an emphasis on the language of instruction (LOI) used throughout a program. He maintains that the use of a specific LOI and a question asking order/sequence helps children learn to make some precise observations about space and time and relate them to objects and events. The LOI helps them to focus through auditory cueing and conditioning. It facilitates mental and visual imagery by making precise connections between language and tactile stimuli. These connections lead to a better foundation for automatic and abstract operations.

The following depicts some of the activities that were used to develop a LOI for this project:

(a)   The use of directional and structural terms to facilitate organizational abilities.

These were integrated into blackboard, notebook, activity book and Blackline

Master activities and included the following:

top/bottom	inside/outside
upper/lower	most/least
left/right	front/behind
vertical/horizontal	clockwise/counter clockwise
first/last	begin/end
up/down	in front of/after
over/under	on/off
start/stop	outside/inside
middle/inside	above/below
forward/backward	pair/single
closest/farthest	whole/half/part
never/always	all/part/some/none
through/around	skip/all
more/less	near/far
second/third	in order/mixed

(b)   The use of a matrix to develop directional and structural terms to facilitate

organizational abilities.   These were done in student scribblers and consisted of

various groups.

<u>Upper</u>   <u>Left | Middle| Right</u>   <u>Upper Left | Upper Right</u>

Lower   Lower Left | Lower Right

2 part Matrix   3 part Matrix   4 Part Matrix

UL	UR
ML	MR
LL	LR

6 part Matrix

UL	UM	UR
ML	MM	ML
LL	LM	ML

6 part Matrix

These matrixes were later used to review various alphabetic constructs.   For

example, students would find all of the three letter words on a page from their

anthology or from an entire story and place them in the Upper Left. The four letter

words were placed in the Middle Left and the	3 letter words	letter <u>a</u>
five letter words were placed in the Lower Left. The	4 letter words	Words beginning with <u>b</u> or <u>d</u>
words containing the letter <u>a</u> were placed in the Upper Right, words beginning with <u>b</u> or <u>d</u> in the Middle Right and words ending in <u>ed</u> or <u>ing</u> in the Bottom Right.	5 letter words	words ending in <u>ed</u> or <u>ing</u>

Matrixes were also used for language meaning and language structure development, for example, using a two part matrix (Upper/Lower) students were asked to put the name words from a page in their anthology above the horizontal line and the action words below the horizontal line.

Naming Words

Action Words

Or using a three part matrix (Left/Middle/Right) students were asked to select feeling words (happy, sad, worried) from an entire theme and put them on the left, right and middle part of the matrix.

Happy Words	Sad Words	Worried Words

The matrix was also helpful in using language processing activities. For example, students were instructed to:

find Middle Right - write grand
find Upper Right - instead of gr, write str
find Upper Left - instead of str, write b
find Middle Left - instead of b write br
find Lower Left - write brand again,
        leave out the br
find Lower Right - write and again, add
        s to the beginning

band	strand
brand	grand
and	sand

McInnis encourages the use of blindfolds to enhance imagery and focus attention. He began experimenting with the use of blindfolds in 1980-81 and has continued to use blindfolds based on his own rationale:

- Blindfolds encourage good listening skills.
- Blindfolds aid in the development of expressive language.
- Blindfolds develop thought before action.
- Blindfolds enhance organizational skills and require language of instruction.
- Blindfolds require children to attend to detail.
- Blindfolds assist in developing the ability to visualize and revisualize.
- Blindfolds assist children in staying on track.

McInnis encourages the "use" of blindfolds not only for all K-1 students, but for students of all grades who are experiencing reading difficulties. He states that "the more we use the blindfolds, the less the number of reinforcements the children need to accommodate the concept" (p. 17).

The following depicts the use of blindfolds for this project:

(a) Each student had his/her own blindfold. These were used daily for various activities and for various amounts of time. The students wore their blindfolds around their neck, and the cue words "Star Reachers" were used to indicate that they were to be put over their eyes or removed from their eyes.

(b) Blindfolds were used at least twice a week to listen to stories or to re-tell stories.

(c) Blindfolds were used with the activities involving the McInnis Word Keys and the activities for the word processing levels. The students were required

to spell the word orally or to use their fingers to trace the words on the imaginary chalkboard inside their forehead.

(d)   Blindfolds were used for some of the matrix activities.   Students were required to construct the matrix as well as to fill in the dictated elements.

(e)   Blindfolds were used for various auditory activities such as repeating words, repeating directions, sequencing sounds or letters, listening for particular word constructs (words beginning/ending with specific sounds, words containing a sound in a medial position, words with one/two/three parts, etc.)

(f)   Blindfolds were used for body awareness activities as well as for directional activities.

(g)   Blindfolds were used for relaxation activities.

PROJECT RESULTS

Although this project affected mostly the project participants and the project teacher, some effects were felt by the rest of the school community, particularly the remainder of the grade two community. The results presented in this paper center around the project participants. An individual student profile is provided in table form which presents student achievement on the standardized achievement tests as well as on the pre/post tests. This is followed by a pre/post project student profile which presents identified student strengths and performance observations. Student identification is withheld and profiles are identified by the letter labels ranging from A-H. Gates MacGinite scores are not included on Student Profiles C and E because these students had transferred into Canyon School in September. Student Profile C is incomplete because this student transferred out before post testing was completed. A brief description of the formal tests used is included in this section.

Student Profile _____ A _____

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	2.5	2.5	2.6
Gates MacGinite Level 3, Form B	Sept. 1996	2.2	2.2	2.2

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

	Listening	Word Analysis	Vocabulary	Reading	Language Total
	K.8	2.6	1.7	2.3	2.3

September 1996			January 1997	
Tests				
Schonell Graded Word	(G.E.)	2.5	(G.E.)	3.6
Schonell Graded Spelling	(G.E.)	1.5	(G.E.)	3.0
Silvaroll Comprehension	(G.E.)	1 70% 3x 2 80% 3x	(G.E.)	2 100% ✓ 3 100% 6x

Monroe Sherman
Aptitude

	# Correct	Percentile	# Correct	Percentile
Visual (Letter)	4	0	9	50
Visual (Form)	0	0	6	50
Auditory (Letter)	8	40	9	50
Motor (Copying)	5	0	20	60
Motor (Crossing Out)	16	10	24	50

McInnis Language Processing

	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	3/3	P	3/3	P
Level D				
I	4/4	P	4/4	P
II	4/4	P	4/4	P
Level E				
I	3/3	P	3/3	P
II	3/3	P	3/3	P
III	3/3	P	3/3	P
IV	0/3	F	3/3	P
Level F	4/4	P	4/4	P
Level G	4/4	P	4/4	P
Level H	4/4	P	4/4	P
Level I	3/4	P	4/4	P
Level J				
I	0/4	F	4/4	P
II	0/4	F	4/4	P
Level K	0/4	F	1/4	F
Level L	0/6	F	3/6	P

McInnis Test for Sound Symbol Relationships

Basic Sounds	25/26	26/26	
Digraphs	3/4	4/4	
Blends	26/27	27/27	

STUDENT A - PRE/POST PROJECT PROFILE

Identified Strengths

Pre	Post
• word recognition and word analysis at a grade two level	• word recognition and word analysis at a grade three level
• knowledge of most basic sounds, digraphs and blends	• knowledge of basic sounds, digraphs and blends
• grade two vocabulary skills	• high grade two vocabulary skills
• grade two comprehension skills	• high grade two comprehension skills
• spelling skills at a grade one level	• spelling skills at a high grade two level
• developing strengths in visual and auditory letter memory and in motor skills relating to text manipulation, with weakness in visual form memory	• increased development in visual and auditory letter memory, visual form memory and in motor skills relating to text manipulatives
• language processing skills as measured by the McInnis test up to Level I	• continual growth in language processing up to Level J, and including Level L

Performance Observations

Pre	Post
• presented a developed sight vocabulary but had difficulty decoding words using phonetic, structural and context clues	• increased ability to use phonetic, structural and context clues when decoding unfamiliar words
• appeared able to handle grade two program content but had difficulty remaining on task and completing activities	• successful with the grade two program, content with little difficulty completing activities
• appeared easily distracted by group members and classroom activities	• is not easily distracted
• difficulty interpreting and following both oral and written directions	• improved performance in handling oral directions but still requires assistance with written directions
• did not demonstrate competent listening skills	• improved performance in listening skills
• had difficulty committing to both classroom and school rules	• improved behavior and improved attitude towards school rules
• difficulty understanding concepts relating to time, space and directional terms	• improved performance using these concepts

Student Profile _____ B _____

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	1.7	1.5	1.7
Gates MacGinite Level 3, Form B	Sept. 1996	1.6	1.1	1.6

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
2.4	2.0	1.4	1.8	2.0

September 1996			January 1997	
Tests				
Schonell Graded Word	(G.E.)	1.6	(G.E.)	2.5
Schonell Graded Spelling	(G.E.)	0.7	(G.E.)	2.0
Silvaroli Comprehension	(G.E.)	1 70% 6x	(G.E.)	1 80% 3x ✓
				2 90% 2x
Monroe Sherman Aptitude	# Correct	Percentile	# Correct	Percentile
Visual (Letter)	3	0		
Visual (Form)	4	30	4	10
Auditory (Letter)	4	0	7	60
Motor (Copying)	6	0	5	10
Motor (Crossing Out)	19	10	14	40
			2.5	60
McInnis Language Processing	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	3/3	P	3/3	P
Level D				
I	4/4	P	4/4	P
II	2/4	F	4/4	P
Level E				
I	3/3	P	3/3	P
II	1/3	F	3/3	P
III	0/3	F	0/3	F
IV	0/3	F	0/3	F
Level F	1/4	F	4/4	P
Level G	4/4	P	4/4	P
Level H	1/4	F	4/4	P
Level I	0/4	F	2/4	F
Level J				
I	0/4	F	4/4	P
II	0/4	F	2/4	F
Level K	0/4	F	0/4	F
Level L	0/6	F	0/6	F
McInnis Test for Sound Symbol Relationships				
Basic Sounds	25/26		25/26	
Digraphs	0/4		4/4	
Blends	19/27		24/27	

STUDENT B - PRE/POST PROJECT PROFILE

<u>Identified Strengths</u>

<u>Pre</u>

<u>Post</u>

• word recognition and word analysis skills at a grade one level

• knowledge of basic sounds and some blends

• vocabulary skills at a grade one level

• grade one comprehension skills

• low grade one spelling skills

• oral reading at a low grade one level

• developing strengths in visual form memory, but weaknesses in visual and auditory letter memory and motor skills relating to text manipulation

• development in language processing skills as measured by the McInnis test up to Level D_I with some success with Levels E_I and Level G

• word recognition and word analysis skills at a grade two level

• knowledge of basic sounds, digraphs and blends

• vocabulary skills at a grade two level

• grade two comprehension skills

• beginning grade two spelling skills

• oral reading at a grade two level

• increased development in visual form memory and in motor skills relating to text manipulation, but continual weaknesses in both visual and auditory letter memory

• development in language processing skills up to Level E_{II} with some success in Levels F, G, H and J_I

Performance Observations

Pre	Post
• difficulty and frustration with grade two program content	• interest and success with grade two program content
• a hard working student despite difficulties with the content	• a hard working and motivated student
• appeared to listen with attention but difficulty with following oral directions	• increased listening skills with ability to follow oral directions
• keen participant in oral discussions but difficulty with organizing and sequencing ideas	• keen participant in oral discussions with improved performance in organizing and sequencing ideas
• reluctant to participate in oral language and oral reading activities	• keen participant in oral language and oral reading activities
• difficulty organizing and presenting concepts relating to time, space and direction	• improved performance in activities relating to time, space and direction

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STUDENT C - PRE/POST PROJECT PROFILE

Identified Strengths

Pre	Post
• word recognition and word analysis skills at a low grade one level	• word recognition and word analysis skills at a grade two level
• some knowledge of basic sounds and blends	• knowledge of basic sounds, digraphs and most blends
• vocabulary skills at a grade one level	• vocabulary skills at a grade two level
• low grade one comprehension skills	• grade two comprehension skills
• low grade one spelling skills	• high grade one spelling skills
• oral reading at a low grade one level	• oral reading at a low grade two level
• developing strength in visual form memory, but weaknesses in visual and auditory letter memory and motor skills relating to text manipulation	• improved performance in daily activities presented in these areas
• development in language processing skills as measured by the McInnis test up to Level H	• continual development in language processing skills up to and including Level I

Performance Observations

Pre	Post
• confident in oral language situations but difficulty with organizing and sequencing presentations	• confident and increased performance in oral presentations
• independent working skills still at a low level with the need for continual teacher assistance	• improved independent working skills but still requiring teacher monitoring
• difficulty organizing and presenting concepts relating to time, space and direction	• improved performance in activities relating to time, space and direction
• keen to participate in oral reading activities but difficulty with grade two content	• keen participant in oral reading activities presenting grade two content
• difficulty following both oral and written directions	• improved performance in following up to three part oral directions but continues to require assistance with written directions
• difficulty remaining on task and completing tasks	• remaining on task for longer time periods but still requiring monitoring for task completion

Student Profile ___D___

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	1.7	1.9	1.8
Gates MacGinite Level 3, Form B	Sept. 1996	1.9	1.5	1.8

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
1.5	2.9	1.2	2.0	1.4

September 1996			January 1997		
Tests					
Schonell Graded Word	(G.E.)	1.5	(G.E.)	2.6	
Schonell Graded Spelling	(G.E.)	0.8	(G.E.)	1.8	
Silvaroli Comprehension	(G.E.)	p 60% 6x	(G.E.)	P 90% ✔	
		1 90% TA		1 90% 2x	
Monroe Sherman				2 100% 2x	
Aptitude	# Correct	Percentile	# Correct	Percentile	
Visual (Letter)	3	0	6	10	
Visual (Form)	4	30	7	60	
Auditory (Letter)	5	0	8	60	
Motor (Copying)	9	0	14	40	
Motor (Crossing Out)	18	0	21	20	

McInnis Language Processing

	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	3/3	P	3/3	P
Level D				
I	4/4	P	4/4	P
II	4/4	P	4/4	P
Level E				
I	3/3	P	3/3	P
II	3/3	P	3/3	P
III	0/3	F	3/3	P
IV	0/3	F	3/3	P
Level F	0/4	F	4/4	P
Level G	3/4	P	4/4	P
Level H	0/4	F	2/4	F
Level I	0/4	F	4/4	P
Level J				
I	0/4	F	4/4	P
II	0/4	F	4/4	P
Level K	0/4	F	3/4	P
Level L	0/6	F	6/6	P

McInnis Test for Sound Symbol Relationships

	September 1996	January 1997
Basic Sounds	23/26	24/26
Digraphs	2/4	4/4
Blends	19/27	23/27

STUDENT D - PRE/POST PROJECT PROFILE

<u>Identified Strengths</u>

<u>Pre</u>   <u>Post</u>

- word recognition and word analysis skills at a grade one level

- knowledge of most basic sounds and some digraphs and blends

- vocabulary skills at a grade one level

- grade one comprehension skills

- low grade one spelling skills

- oral reading at a beginning grade one level

- developing strength in visual form memory but weaknesses in visual and auditory letter memory and motor skills requiring text manipulation

- development in language processing skills as measured by the McInnis test up to Level E_{II}, with some success in Levels F and G

- word recognition and word analysis skills at a grade two level

- knowledge of most basic sounds, digraphs and blends

- vocabulary skills at a grade two level

- grade two comprehension skills

- high grade one spelling skills

- oral reading at a grade two level

- improved development in visual form memory, auditory letter memory and motor skills requiring text manipulation but continual weakness in visual letter memory

- development in language processing skills up to Level L with some difficulty with Level H

Performance Observations

<u>Pre</u>	<u>Post</u>
• difficulty and frustration with grade two program content	• interest and success with grade two program content
• confusion and frustration with activities dealing with space, directions and time	• improved performance in the area but continuing difficulty with directional terms
• independent skills still at a low level with the need for continual teacher assistance	• independent participant at a grade two level
• presented a desire to succeed, remained on task and put in a very good effort but couldn't handle material successfully	• continues to be motivated, hard working and presents pride in her accomplishments
• difficulty following both oral and written directions	• improved performance in following both oral and written directions

Student Profile ___E___

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996			
Gates MacGinite Level 3, Form B	Sept. 1996	1.3	K	1.3

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
1.5	2.3	1.0	1.7	1.2

September 1996			January 1997	
Tests				
Schonell Graded Word	(G.E.)	0.7	(G.E.)	2.4
Schonell Graded Spelling	(G.E.)	1.1	(G.E.)	2.1
Silvaroli Comprehension	(G.E.)	1 70% 6x 2 40% TR	(G.E.)	1 100% ✓ 2 90% 6x
Monroe Sherman Aptitude	# Correct	Percentile	# Correct	Percentile
Visual (Letter)	5	0	7	10
Visual (Form)	4	30	3	20
Auditory (Letter)	5	10	6	10
Motor (Copying)	10	10	15	40
Motor (Crossing Out)	14	0	22	30
McInnis Language Processing	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	2/3	P	3/3	P
Level D				
I	3/4	P	4/4	P
II	3/4	P	4/4	P
Level E				
I	3/3	P	3/3	P
II	3/3	P	3/3	P
III	0/3	F	3/3	P
IV	0/3	F	3/3	P
Level F	3/4	P	4/4	P
Level G	4/4	P	4/4	P
Level H	1/4	F	4/4	P
Level I	3/4	P	4/4	P
Level J				
I	0/4	F	4/4	P
II	0/4	F	2/4	F
Level K	0/4	F	0/4	F
Level L	0/6	F	2/6	F
McInnis Test for Sound Symbol Relationships				
Basic Sounds	23/26		26/26	
Digraphs	0/4		4/4	
Blends	1/27		24/27	

STUDENT E - PRE/POST PROJECT PROFILE

Identified Strengths

Pre	Post
• word recognition and word analysis skills at a grade one level	• word recognition and word analysis skills at a grade two level
• knowledge of most basic sounds	• knowledge of most basic sounds, digraphs and blends
• vocabulary skills at a low grade one level	• vocabulary skills at a grade two level
• grade one comprehension skills	• grade two comprehension skills
• low grade one spelling skills	• low grade two spelling skills
• oral reading at a low grade one level	• oral reading at a low grade two level
• developing strength in visual form memory but weaknesses in visual and auditory letter memory and motor skills relating to text manipulation	• increased development in visual form memory and motor skills relating to text manipulation but continual weakness in visual and auditory letter memory
• development in language processing skills as measured by the McInnis test up to Level E_{II} and some success with Levels F G and I	• continual development in language processing up to Level J_I

Performance Observations

Pre	Post
• student was recommended for grade one repetition in another school, presented herself as withdrawn and reluctant to engage in oral activities	• student is functioning at a grade two level and has become a keen group participant
• difficulty and frustration with grade two program content	• interest and success with grade two program content
• confusion and frustration with activities dealing with space, direction and time	• performance in activities suggests some improvements, but some confusion is still evident
• limited proficiency with oral reading and a reluctant participant in this area	• appears to enjoy oral reading and is quick to volunteer in this area
• limited independent working skills and required continual assistance	• works well independently after she understands the nature of the activities
• difficulty following both oral and written directions	• improved performance in this area but still requires some assistance

Student Profile _____ F _____

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E.)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	2.1	2.1	2.1
Gates MacGinite Level 3, Form B	Sept. 1996	2.2	2.5	2.4

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
1.5	3.3	1.3	2.0	1.7

September 1996			January 1997		

Tests

	September 1996			January 1997	
Schonell Graded Word	(G.E.)	2.0		(G.E.)	3.1
Schonell Graded Spelling	(G.E.)	1.6		(G.E.)	2.6
Silvaroli Comprehension	(G.E.)	1 80% 3x		(G.E.)	1 100% ✓
		2 70% 5x			2 90% ✓
					3 60% 2

Monroe Sherman

Aptitude	# Correct	Percentile	# Correct	Percentile
Visual (Letter)	6	0	12	90
Visual (Form)	9	80	7	70
Auditory (Letter)	5	0	7	30
Motor (Copying)	9	0	20	60
Motor (Crossing Out)	20	20	27	70

McInnis Language Processing

	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	3/3	P	3/3	P
Level D				
I	4/4	P	4/4	P
II	4/4	P	4/4	P
Level E				
I	3/3	P	3/3	P
II	3/3	P	3/3	P
III	2/3	P	3/3	P
IV	0/3	F	1/3	F
Level F	3/4	P	4/4	P
Level G	2/4	F	3/4	P
Level H	2/4	F	4/4	P
Level I	0/4	F	0/4	F
Level J				
I	0/4	F	0/4	F
II	0/4	F	0/4	F
Level K	0/4	F	0/4	F
Level L	0/6	F	0/6	F

McInnis Test for Sound Symbol Relationships

	September 1996	January 1997
Basic Sounds	24/26	26/26
Digraphs	3/4	4/4
Blends	18/27	24/27

STUDENT F - PRE/POST PROJECT DATA

Identified Strengths

Pre	Post
• word recognition and word analysis skills at a grade two level	• word recognition at a grade three level, word analysis skills at a grade two level
• knowledge of most basic sounds, digraphs and blends	• knowledge of basic sounds, digraphs and blends
• vocabulary skills at a low grade two level	• vocabulary skills at a high grade two level
• grade two comprehension skills	• high grade two comprehension skills
• grade one spelling skills	• grade two spelling skills
• oral reading at a grade two level	• oral reading at a grade three level
• developing strength in visual form memory and some motor skills relating to text manipulation, with some weakness in both visual and auditory letter memory	• developmental strength in visual and auditory letter memory, visual form memory and motor skills relating to text manipulation
• development in language processing skills as measured by the McInnis test up to Level E_{III} with some success with Level F	• development in language processing skills up to Level H, with some difficulty with Level E_{IV}

Performance Observations

Pre	Post
• presented a developed sight vocabulary but had difficulty decoding words using phonetic, structural and context clues	• continual growth in sight word recognition and some improved performance in using phonetics and structural clues to assist in word identification
• ability to be successful with grade two content, but difficulty with independent work skills	• improvement in independent work skills but still requiring teacher monitoring
• competent in oral language activities with presentation skills including organization and sequence	• continual competency in all oral language activities
• ability to follow both oral and written directions, but a lack of commitment to doing so	• improved commitment to following directions
• a demonstrated reluctance to commit to group or school rules resulting in many difficulties with behavior	• an attitude and behavior modification program resulted in positive classroom behavior but general school behavior remains an area of concern
• concepts dealing with space, time and direction presented many problems	• improvement in activities relating to time, space and directional concepts

Student Profile _____ G _____

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	1.7	1.8	1.8
Gates MacGinite Level 3, Form B	Sept. 1996	1.6	1.1	1.6

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
1.2	2.9	1.0	1.8	1.4

September 1996			January 1997	
Tests				
Schonell Graded Word	(G.E.)	1.8	(G.E.)	2.3
Schonell Graded Spelling	(G.E.)	1.3	(G.E.)	2.1
Silvaroli Comprehension	(G.E.)	1 90% 6x 2 70% TR	(G.E.)	1 90% 3x 2 90% 9x
Monroe Sherman Aptitude	# Correct	Percentile	# Correct	Percentile
Visual (Letter)	2	0	6	10
Visual (Form)	2	0	3	10
Auditory (Letter)	6	10	10	90
Motor (Copying)	8	0	17	45
Motor (Crossing Out)	6	0	15	50

McInnis Language Processing

	# Correct	Pass/Fail	#Correct	Pass/Fail
Level C	3/3	P	3/3	P
Level D				
I	4/4	P	4/4	P
II	4/4	P	4/4	P
Level E				
I	3/3	P	3/3	P
II	3/3	P	3/3	P
III	2/3	P	3/3	P
IV	2/3	P	3/3	P
Level F	4/4	P	4/4	P
Level G	2/4	F	4/4	P
Level H	3/4	P	2/4	F
Level I	0/4	F	0/4	F
Level J				
I	4/4	P	0/4	F
II	3/4	P	3/4	P
Level K	0/4	F	1/4	F
Level L	0/6	F	0/6	F

McInnis Test for Sound Symbol Relationships

Basic Sounds	23/26		26/26	
Digraphs	0/4		3/4	
Blends	14/27		23/27	

STUDENT G - PRE/POST PROJECT DATA

Identified Strengths

Pre	Post

• word recognition and word analysis skills at a grade one level

• knowledge of basic sounds

• grade one vocabulary skills

• grade one comprehension skills

• low grade one spelling skills

• oral reading at a low grade one level

• general weaknesses in visual and auditory letter memory, visual form memory and motor skills relating to text manipulations

• development in language processing skills as measured by the McInnis text up to Level F with some success in Level H and J

• word recognition and word analysis skills at a grade two level

• knowledge of basic sounds and most digraphs and blends

• grade two vocabulary skills

• grade two comprehension skills

• low grade two spelling skills

• oral reading at a low grade two level

• increased development in auditory letter memory and motor skills relating to text manipulation, but continual weakness in both visual letter and visual form memory

• development in language processing up to Level G, with some conflicting results in Levels H and J

Performance Observations

Pre	Post
• difficulty and frustration with grade two program content	• requiring some program modification but experiencing continual success
• very poor performance in the areas of letter formation, spacing, tracing and illustrating	• improved performance in this area but accuracy and speed both requiring attention
• difficulty and frustration in handling concepts related to time, space and direction	• improved performance in this area but some remaining difficulty with concepts relating to space and direction
• difficulty sorting out relevant/irrelevant information and real/make believe concepts	• performance in this area seems to be affected by other factors (emotions, peer relationships, etc.)
• difficulty interpreting and following oral and written directions	• improved performance with oral directions but continual difficulty with written directions
• difficulty concentrating, remaining on task and completing assignments	• increased concentration and ability to remain on task, still has difficulty completing assignments
• independent working skills still at a low level, with the need for continual teacher assistance	• although some improvement in performance, continual teacher assistance is still required

- keen to participate in oral language
- keen oral language participant with
  activities but difficulty organizing and
  improved presenting abilities
  presenting ideas

Student Profile _____ H _____

Test	Date	Vocabulary (Grade Equivalent)	Comprehension (G.E)	Total (G.E.)
Gates MacGinite Level 3, Form A	May 1996	1.8	1.6	1.8
Gates MacGinite Level 3, Form B	Sept. 1996	1.7	K	1.5

Test

Canadian Test of Basic Skills   June, 1996 (Grade Equivalents)
Level 6, Form 7

Listening	Word Analysis	Vocabulary	Reading	Language Total
1.0	2.3	K8	1.8	1.2

September 1996			January 1997		
Tests					
Schonell Graded Word	(G.E.)	1.3	(G.E.)	2.2	
Schonell Graded Spelling	(G.E.)	1.3	(G.E.)	2.5	
Silvaroll Comprehension	(G.E.)	p 70% 4x 1 100% TA 2 80% TR	(G.E.)	p 100% ✓ 1 80% 3x 2 90% 5x	
Monroe Sherman Aptitude	# Correct	Percentile	# Correct	Percentile	
Visual (Letter)	4	0	8	20	
Visual (Form)	4	30	5	40	
Auditory (Letter)	6	10	8	60	
Motor (Copying)	6	0	15	50	
Motor (Crossing Out)	24	50	33	90	
McInnis Language Processing	# Correct	Pass/Fail	#Correct	Pass/Fail	
Level C	3/3	P	3/3	P	
Level D					
I	4/4	P	4/4	P	
II	4/4	P	4/4	P	
Level E					
I	3/3	P	3/3	P	
II	3/3	P	3/3	P	
III	0/3	F	1/3	F	
IV	0/3	F	0/3	F	
Level F	3/4	P	4/4	P	
Level G	2/4	F	4/4	P	
Level H	3/4	P	4/4	P	
Level I	2/4	F	1/4	F	
Level J					
I	0/4	F	1/4	F	
II	0/4	F	0/4	F	
Level K	0/4	F	0/4	F	
Level L	0/6	F	0/6	F	
McInnis Test for Sound Symbol Relationships					
Basic Sounds	22/26		25/26		
Digraphs	0/4		2/4		
Blends	0/27		19/27		

STUDENT H - PRE/POST PROJECT PROFILE

<u>Identified Strengths</u>

<u>Pre</u>	<u>Post</u>
• word analysis and word recognition skills at a grade one level	• word analysis and word recognition skills at a beginning grade two level
• knowledge of basic sounds	• knowledge of basic sounds and some digraphs and blends
• grade one vocabulary skills	• grade two vocabulary skills
• grade one comprehension skills	• grade two comprehension skills
• low grade one spelling skills	• beginning grade two spelling skills
• oral reading at a low grade one level	• oral reading skills at a beginning grade two level
• some developing strengths in visual form memory and in motor skills relating to text manipulation, general weakness in visual and auditory letter memory	• increased development in visual form, visual and auditory letter memory and motor skills relating to text manipulation
• development in language processing skills as measured by the McInnis test up to Level E_{II} with some success in Levels F and H	• development in language processing up to Level E_{II} with some success in Levels F, G and H

Performance Observations

Pre	Post
• difficulty and frustration with grade two program content	• requiring some program modifications but experiencing continual success
• a hard working student despite difficulties with content	• a continuing hard working and motivated student
• speech presented difficulties and required speech therapist assistance	• continuing with speech therapist assistance
• oral reading was difficult to assess because of speech difficulties, but student enjoyed the process and was quick to volunteer	• improved fluency and accuracy with oral reading ,student continues to volunteer and demonstrates pride with this process
• difficulty organizing and presenting concepts relating to time, space and direction	• improved performance in these areas but directional terms still cause confusion
• appeared to listen with attention, difficulty with following oral directions, difficulty interpreting written directions	• improved performance in handling oral direction, written directions continue to present difficulty

Tests Used

Gates MacGinite

The Gates MacGinite is a standardized achievement test which prides grade equivalents for vocabulary and comprehension as well as an overall reading grade equivalent score. Form A of the test was administered to all grade one students at the end of the school year, while Form B was administered to all grade two students at the beginning of the grade two school year. Students C and E were students from Central School who transferred into grade two at Canyon School and did not participate in the June Form A testing.

Canadian Test of Basic Skills

The CTBS is a standardized achievement test which provides grade equivalents for the skill areas of listening, word analysis, vocabulary and reading, as well as a language grade equivalent. All the grade one students, including all eight project students participated in this testing.

Schonell Graded Word Reading Test

This test consists of one hundred words of increasing difficulty taken out of context. It provides a grade equivalent for the general skill of word recognition, word analysis or word identification. This test was administered individually to all grade two students at the beginning of the school year. Only the eight project participants repeated the test in January at the end of the project.

Schonell Graded Word Spelling Test

This test consists of one hundred words of increasing difficulty to be written from dictation. It provides a grade equivalent for the general skill of word recognition, word analysis or word identification. Form B of this test was administered to all grade two students at the beginning of the school year. Form A was administered to the group of project participants at the end of the project.

Silvaroli Oral Comprehension Test

This test consists of graded passages beginning with the pre-primer and primer levels and going up to Level G (grade 8). The test provides an independent, an instructional and a frustration level for students. Students read the passages orally while the examiner notes all of the word errors. The examiner asks five oral questions and records the responses. Questions are coded as factual, inferential or vocabulary questions. The number of word errors and the comprehension (presented as a percentage) were recorded for this project. This task was administered individually to all grade two students at the beginning of grade two and again to project participants in January, at the end of the project.

The Monroe Sherman Aptitiude Tests

The Monroe Sherman Aptitude tests were part of the Testing Battery used by the University of Lethbridge in a 1972 student which was described in the Local Literature Review in this project. Five sections of this test (a visual letter memory test, a visual form memory test, an auditory letter memory test and two motor tests) were administered

to the project participants. Percentile norms based on age and raw scores have been established for these tests, placing the normal range between the twentieth and seventieth percentile. These percentile norms, however, are only available for students who have already reached their eight birthday. None of the participants in this project were eight years old, therefore the percentiles are only approximate and not considered reliable. However, by recording the number of correct responses and the approximate percentiles in a pre and post testing situation some information was available indicating growth or a lack of growth in the aptitude areas.

McInnis Test for Sound/Symbol Relationships

This test requires students to identify 26 basic sounds of the letters, some basic digraphs and 27 common consonant blends. These are presented in isolation by the examiner and the student responds by writing the letter or letters representing the sound. The number of basic sounds and sound combinations identified correctly by the student and the sounds which resulted in errors were recorded for this project. This test was administered to the project participants at the beginning of the project and again at the end of the project.

McInnis Language Processing Assessment

This test provides information on how children hear the sounds embedded within words and how they analyze their order and sequence. Children must listen and follow the oral directions provided by the examiner. They have to listen analytically, to hear the sounds accurately and they must separate these sound and place them in a proper order.

The test contains twelve levels (A - L), with each level requiring a different language process.

Level A   Symbol (cube) to Word Matching

Level B   Sound to Word Matching

Level C   Word to Word Matching

Level D   Two Syllable Segmentation: Compound and Two Syllable Words

Level E   Three Syllable Segmentations

Level F   Omitting the Initial Phoneme in a Word

Level G   Substituting the Initial Consonant in a Word

Level H   Substituting the Initial Phoneme of a Consonant Blend

Level I   Omitting the Final Syllable in a Three Syllable Segmentation

Level J   Substituting Either a Short or Long Vowel in the Medial Position in a Word

Level K   Substituting the Second Phoneme in a Consonant Blend

Level L   Substituting the Final Consonant in a Word

The number of correct responses at each level, as well as a letter rating (P = pass, F = fail), were recorded for this project. The language processing assessment was administered to project participants at the beginning and at the end of the project.

CONCLUSIONS AND IMPLICATIONS

The integrated intervention program presented an opportunity to minimize early reading difficulties for underachieving students and decrease the number of students who would require special reading programming in later years. Although a four month time span presents limitations towards achieving these two broad objectives several concluding generalizations and some statements can be presented. These are presented under the headings of general program characteristics, specific program presentation and student performance.

General Program Characteristics

The presentation of the program in a resource room setting during the regular language learning time presented several advantages. It allowed for easy timetable accommodation and resulted in little regular classroom disturbance. It resulted in a resource room view of small group presentation of regular programs rather than one of special programs for special students. This view was reinforced by the utilization of the regular grade two program with the same texts, workbooks, reviews and tests as the basis for instruction and evaluation. The use of this material resulted in easy student integration into the regular classroom. It allowed for integration across the curriculum by providing the thematic content for activities in subjects such as music and art. The small group provided adequate numbers for group discussion, instruction and interaction yet presented opportunity for individual instruction and assistance. The project group and the project teacher were viewed as a part of the larger regular classroom context. This view resulted in communication between home and school for project participants becoming a

joint effort involving the regular classroom teacher and the project teacher. However, it was the classroom teacher who was responsible for parent teacher interviews, parent involvement in regular classroom activities and take home projects. This arrangement not only allowed for the maintenance of a strong positive sense of classroom feeling and belonging for the project participants, but it also resulted in positive working relationships between the classroom teacher, the project teacher and the parents.

Specific Program Presentation

The Networks program content presented very few structural activities of the type found in the McInnis program. The process of using Networks content and vocabulary to create and present the McInnis language of instruction, the McInnis keys and the McInnis activities for language processing levels A - L exerted great demands on teacher time and energy.

The Assured Readiness for Learning Program provided the scope and some of the sequence for the drills, repetitions and activities using the auditory, visual and motor modalities. This scope and sequence was influenced by an analysis of the McInnis Sound Symbol test, the McInnis Language Processing test and the sections of the standardized tests centering around recognizing, analyzing and identifying words. All eight of the project participants had difficulty with various levels of the language processing test. On the pre-test, four of the eight project participants had not passed Level E-111 (the goal for the end of kindergarten) and one other student had not passed E-11, an expected level for grade one entry. Three of the eight students had failed Level G, which would have put them on a linguistic program in grade one. On the post-test, two of the eight students had

still not passed Level E-111, but all eight students had passed Level E-11 and Level G. It appears that the Language Processing Assessment does provide some valuable and accurate information on how children hear the sounds embedded within words and how they analyze their order and sequence. It also appears that the presentation of daily, brief activities of the type found in the McInnis program does assist in developing visual, auditory and motor skills which are necessary for the successful manipulation of sounds. However, it does not appear that students must achieve at certain levels of automaticity, as measured by this assessment, before they can be successful with reading acquisition.

The post testing indicated that all eight students had achieved at least a grade two level in comprehension, even though four of the students were still demonstrating some difficulty with sound manipulation and word identification. All eight students were experiencing success with the composing and cognitive skills represented in the Nelson Networks program, despite the fact that they were demonstrating some difficulty with sound manipulation and word identification. The presentation of the drills, skills and repetitions which included the McInnis activities for developing sound symbol relationships, the McInnis activities for developing sound blending systems and the McInnis keys for the development of sound manipulation required much extra time for preparation as well as continual decision making as to where and when these presentations might best occur. It is realistic to assume that these presentations, integrated into the Networks program, might have assisted in achieving the project goals

of attaining positive gains in phonological awareness, alphabetic coding/decoding and early reading acquisition.

An emphasis on the development of and the use of a language of instruction (LOI) as suggested by McInnis, did appear to be helpful with the presentation of the integrated program. This language of instruction included the development and use of various matrixes in student scribblers, activity books and Blackline Master activities. This was, initially, an area of great confusion for the project participants and required many repetitions before correct responses were obtained. However, the matrixes did help to clarify directional ,spatial and structural terms and did assist in developing organizational skills. These organizational skills were rapidly integrated into all of the student activities and were of great benefit throughout the project.

The use of blindfolds did provide another strategy for developing listening skills, as well as another strategy for reinforcing concepts and developing processes. Learning to listen, or developing the ability to listen is important to becoming competent with the processes associated with reading. Associating, integrating, coding/decoding, manipulating, recognizing, appropriatizing and assimilating are all influenced by listening competency. The project participants did appear to become better listeners within the classroom context, however, this skill was not measured in a pre/post test fashion. The blindfolds provided some initial excitement as well as some initial classroom noise and confusion. The students did appear to enjoy their use and quickly adjusted to the routine of putting them over their eyes and then removing them. Wearing blindfolds very quickly became associated with extreme quietness and attentiveness and student

distractibility appeared to become less of a problem. Listening to stories with their blindfolds on and then retelling the stories with/without their blindfolds was an activity the students enjoyed and appeared to get better at. The use of blindfolds to visualize and revisualize and the use of an imaginary chalkboard inside their forehead was a practice the students enjoyed. It was easy to observe the progress that the students made in their ability to correctly trace the McInnis keys on top of their imaginary chalkboard. The blindfolds were also used to assist in developing directional and structural terms using the matrix activities. All of the project participants showed rapid progress in their abilities to handle space and direction while wearing their blindfolds. Although it is difficult to make any concluding statement about the precise usefulness and the transferability of the progress observed in the blindfold activities, it is realistic to assume that the blindfolds were of some use in the project. McInnis suggested that the more we use the blindfolds, the less the number of reinforcements the children need to accommodate the concept. Their use in this project is best summarized as one of providing additional and novel reinforcements of skills, processes and concepts.

Student Performance

An examination of the pre and post testing data and observation of student performance throughout the project suggest that this type of program integration and program presentation did have the potential of minimizing and eliminating difficulties with early reading acquisition for grade two students. This program and its presentation provided observable growth in the visual, auditory and motor modalities demonstrated not only by the post testing, but more importantly by daily student performance. The

utilization of the McInnis language processing activities did result in observable improved student oral and written ability to accurately hear sounds, to separate them and to manipulate and order them. The project participants who started out with difficulties in phonological awareness and alphabetic coding and who had difficulty with word analysis all showed positive and rapid gain in this area. By the end of the project all participants had shown observable growth in their organization skills, had begun to pay more attention to detail and had increased their ability to stay focused and remain on task. All of the students had raised their grade scores on the Schonell Graded Word, the Schonell Graded Spelling and the Silvaroli Oral Comprehension post tests. Most of the students had achieved at least a beginning grade two level on these post tests. Most importantly, all of the students are experiencing growth and success in manipulating and composing the same text as their grade two classmates.

Implications

The conceptual representation found in the Common Curriculum Framework for English Language Arts (1996) developed through the Western Canadian Protocol for Collaboration in Basic Education presents another program shift. Within this program students are expected to demonstrate interrelated and interdependent learning outcomes which are broad statements identifying student knowledges, skills and attitudes. These general outcomes are to be achieved through a variety of listening, speaking, reading, writing, viewing and representing experiences. In this program grade two students are to use syntactic, semantic and graphophonic cues to construct and confirm word meaning in context (p. 20). Some of these cues are presented as sound-symbol relationships to identify initial and final consonants, letter clusters, blends, digraphs and vowels. Students are expected then to use sound-symbol relationships and visual memory to spell familiar words (p. 56). The conceptual framework suggests that students listen, speak, read, write, view and represent so that they can explore, comprehend, respond, manage, enhance and build through listening, speaking, reading, writing, viewing and representing (p. 5).

The integrated program used for this project might be representative of the type of scope and sequence that could be used in developing the graphophonic cues this 1996 framework refers to. The utilization of a structured and sequential language processing system such as the McInnis system might be useful for developing the syntactic, semantic and graphophonic cues this 1996 framework refers to. The presentation of prepared, structured activities to attain development not only in visual memory, but in all visual,

auditory and motor skills relating to text manipulation would be useful for developing the skills of listening, speaking, reading, writing, viewing and representing that this 1996 framework is dependent upon. The small group structure could be viewed as a successful setting for these presentations at any grade level. This structure would allow for a decrease in regular class size and provide for flexibility in student movement in and out of the small group. It would allow for the successful presentation of grade related content with focus on alphabetic coding and on the successful manipulation of text.

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APPENDICES

Appendix A

Schonell Tests

tree	little	milk	egg	book
school	sit	frog	playing	bun
flower	road	clock	train	light
picture	think	summer	people	something
dream	downstairs	biscuit	shepherd	thirsty
crowd	sandwich	beginning	postage	island
saucer	angel	ceiling	appeared	gnome
canary	attractive	imagine	nephew	gradually
smoulder	applaud	disposal	nourished	diseased
university	orchestra	knowledge	audience	situated
physics	campaign	choir	intercede	fascinate
forfeit	siege	recent	plausible	prophecy
colonel	soloist	systematic	slovenly	classification
genuine	institution	pivot	conscience	heroic
pneumonia	preliminary	antique	susceptible	enigma
oblivion	scintillate	satirical	sabre	beguile
terrestrial	belligerent	adamant	sepulchre	statistics
miscellaneous	procrastinate	tyrannical	evangelical	grotesque
ineradicable	judicature	preferential	homonym	fictitious
rescind	metamorphosis	somnambulist	bibliography	idiosyncrasy

Schonell Graded Word (Spelling Test - A)

1. net	11. let	21. land	31. ground	41. damage
2. can	12. doll	22. how	32. lowest	42. else
3. fun	13. bell	23. your	33. folk	43. through
4. top	14. yes	24. cold	34. write	44. entered
5. rag	15. then	25. talk	35. amount	45. cough
6. sat	16. may	26. flower	36. noise	46. fitted
7. hit	17. tree	27. son	37. remain	47. spare
8. lid	18. by	28. seem	38. hoped	48. daughter
9. cap	19. ill	29. four	39. worry	49. edge
10. had	20. egg	30. loud	40. dancing	50. search

51. concert	61. liquid	71. accordance	81. surplus
52. domestic	62. assist	72. mechanical	82. exceptionally
53. topic	63. readily	73. anxious	83. successful
54. method	64. guess	74. signature	84. preliminary
55. freeze	65. attendance	75. allotment	85. resource
56. avoid	66. description	76. approval	86. prologue
57. duties	67. welfare	77. accomplished	87. colonel
58. recent	68. various	78. remittance	88. coarse
59. type	69. genuine	79. financial	89. referring
60. instance	70. interfere	80. capacity	90. courteous

91. exhibition	93. attorney	95. toboggan	97. guarantee	99. paraffin
92. affectionately	94. pinnacle	96. definite	98. anniversary	100. accommod:

SCHONELL GRADED WORD SPELLING TEST
B

see	cut	mat	in	ran
bag	ten	hat	dad	bed
leg	dot	pen	yet	hay
good	till	be	with	free
time	call	help	week	pie
boat	mind	sooner	year	dream
sight	mouth	large	might	brought
mistake	pair	while	skate	stayed
yoke	island	nerve	join	fare
iron	health	direct	calm	headache
final	circus	increase	slippery	lodge
style	bargain	copies	guest	policy
view	library	cushion	safety	patient
account	earliest	institution	similar	generous
orchestra	equal	individual	merely	enthusiastic
appreciation	familiar	source	immediate	breathe
permanent	sufficient	broach	customary	especially
materially	cemetary	leisure	accredited	fraternally
subterranean	apparatus	portmanteau	politician	miscellaneous
mortgage	equipped	exaggerate	amateur	committee

Appendix B

Silvaroli Oral Comprehension Test

Teacher's Worksheet

$\frac{W<P.M}{1341}$

Form B--Part II
Level PP (40 words)

Silvaroli Oral Comprehension Test

MOTIVATION: This story tells about two children and their car.
Read this story to find out more about the car and
these two children.

THE PLAY CAR

"See my play car," said Tom.
"It can go fast"
Ann said, "It's a big car."
"Yes," said Tom.
"Would you like a ride?"

Scoring Guide: Pre-Printer

WR Errors	COMP Errors
IND 0	IND 0-1
INST 1-2	INST 1½-2
FRUST 3+	FRUST 2½+

COMPREHENSION CHECK

(F) 1. What are the names of the
boy and girl in the story?
(Tom and Ann)

(F) 2. What were they talking
about?
(The play car, etc.)

(F) 3. Who owned the car?
(Tom)

(F) 4. What did (the girl) Ann
say about the car?
(Big car)

(I) 5. Why did Tom like the car?
(Because it can go fast,
it is big, etc.)

FORM B: PART II
Level P (40 words)

MOTIVATION: This story is about a trip that boys and girls took
one day. Read the story to find out where they were
going and how they traveled.

OUR BUS RIDE

It was time to go to the farm.
"Get in the bus," said Mrs. Brown.
"We are ready to go now."
The children climbed in the bus
And away went the bus.
It was a good day for a ride.

Scoring Guide: Printer

WR Errors	COMP Errors
IND 0	IND 0-1
INST 2	INST 1½-2
FRUST 4+	FRUST 2½+

COMPREHENSION CHECK

(F) 1. Where are they going?
(Farm)

(F) 2. How were they going?
(By bus)

(I) 3. Who is Mrs. Brown?
(Teacher or bus driver)

(F) 4. How did the children
know that it was time
for the bus to leave?
(Mrs. Brown said we are
ready to go)

(I) 5. How did the children
feel?
(Happy, or some posit-
ive reaction)

W.P.M
72400

FORM B: PART II
Level 1 (40 words)

MOTIVATION: Have you ever wondered what life might be like in
              an ant's home? Read this story to find out more
              about ants.

RED ANTS

Red ants live in the sand.
They live under the ground.
These ants have many houses.
Each red ant builds its own room.
They must take the sand outside.
The sand is made into little hills.
Ants are busy bugs.

COMPREHENSION CHECK

(F) 1.   Where do ants live?
         (Under ground, in sand, everywhere)

(F) 2.   How many houses do ants have?
         (Many, lots, several)

(I) 3.   Why do the ants have to take the
         sand outside?
         (Because there is no room in the
          holes underground)

(V) 4.   What does the word "busy" mean
         in the story?
         (Hard workers, working all of the
          time, etc.)

(F) 5.   What color were the ants in this
         story?
         (Red)

Scoring Guide: First

WR Errors		COMP Errors	
IND	0	IND	0-1
INST	2	INST	1½-2
FRUST	4+	FRUST	2½+

FORM B: PART II   <u>W.P.M.</u>
Level 2 (43 words)   2580

MOTIVATION: Can you imagine 25 mean bulls loose in a crowd of
              people? It would be a mess. Read this story to
              find out what some people when bulls are loose.

                         PEOPLE AND BULLS

Before a bull fight some people wait in the streets.
Then angry bulls chase them down the streets.
some people try to hide.
Here come the bulls, they yell!
Run for your lives.
some people get hurt.
Others think it is great fun.

              <u>COMPREHENSION CHECK</u>

(F) 1. why did the people run from the bulls?
        (Because the bulls might hurt them)

(F) 2. What did the people do just before a big bull fight?
        (Waited in the street)

(I) 3. Why do some people like to wait for the bulls?
        (see if they can get away from the bulls,etc.)

(I) 4. What makes the bulls angry?
        (People tease them, they are frightened, etc.)

(V) 5. What does the word "chase" mean?
        (To run after, etc.)

<u>Scoring Guide:</u>   Second

<u>WR Errors</u>   <u>COMP Errors</u>

IND   0   IND   0-1
INST   3   INST   1½-2
FRUST 5+   FRUST   2½+

FORM B: PART II
Level 3 (36 words)

MOTIVATION: This story tells some unusual things about some baby
birds.   Read the story to see how they got their name

"SILLY BIRDS"

Even with food all around, turkeys will
not eat.   Turkeys can really be called "Silly
birds."   Many die from lack of food.   Straw
is kept in their houses but some never seem
to discover what it is used for.   We will
never understand senseless turkeys.

The silly young birds don't know enough
to come out of the cold, either.   So many get
sick and die.   If they see anything bright,
they try to eat it.   It may be a pencil, a
small nail or even a shovel.   You can see
how foolish these "silly birds" are.

COMPREHENSION CHECK

(I) 1.   What kind of a bird does this story tell about?
(Turkeys)

(F) 2.   What do turkeys do when they see something bright?
(Try to eat it)

(I) 3.   What is the danger to turkeys when they do silly things?
(they die)

(F) 4.   Tell at least two things that a baby turkey will try to
eat.
(Pencil, nail, shovel or something bright)

(I) 5.   What do you think is the most important thing in this
story tells you about turkeys?
(They are very foolish, silly, or dumb)

Scoring Guide: Third

WR Errors		COMP Errors	
IND	2	IND	0-1
INST	5	INST	1½-2
FRUST	10	FRUST	2½+

Appendix C

Monroe Sherman Aptitude Tests

Part 2   Aptitude Tests

VISUAL TEST 1.   Letter Memory

Materials for this test are the large cards with nonsense words printed on them. Show each card for five seconds exactly. Allow reasonable time between each word for the children to write. See that the children do not begin to write before the card is removed. Never show the cards again.

VISUAL TEST 2.   Form Memory

Materials for this test are the large cards with figures drawn on them. Show each card 10 seconds exactly. Allow reasonable time for the children to draw after each card is shown. See that the children do not begin to draw before the card is removed. Never show the cards again.

AUDITORY TEST 1.   Letter Memory

After reading the directions on the test blank to the children say, "Listen for the first word. Do not write until I have finished." See that the children do not write until you have finished spelling aloud the word. Read the letters at the rate of 1 per second. Allow time for the children to write after each word. The nonsense words are as follows:

1.	o - m	5.	f - l - o - b	9.	s - k - e - n - a - r	13.	m - a - f - a - p - a - s - e
2.	l - u	6.	s - p - a - g	10.	g - r - e - v - i - k	14.	s - q - u - o - g - e - l - t
3.	t - a - s	7.	w - h - u - g - g	11.	a - l - i - n - n - a - r	15.	b - e - t - h - o - s - e - l - t
4.	m - e - y	8.	t - r - o - m - e	12.	y - a - p - r - o - i - f	16.	b - r - i - a - g - o - n - t - y

AUDITORY TEST 2.   Discrimination and Orientation

After reading the directions on the test blank to the children say, "Look at the sample. Which of these words is beat? boot, bat, beat, bit. Yes, it is the third one, so draw a ring around beat. Now, in this test we do not have the words written out, but have an X for each word. Look at the sample in the next line. Which X stands for bed? Listen carefully. bad, bed, head, bend. Which was bed? Yes, the second one. Put a ring around the second X. (If the children do not understand, repeat these directions again. Never repeat any part of the actual test. Articulate clearly and distinctly but not explosively. Use your ordinary classroom voice. Give the same intonation to each word, and be sure not to over or under emphasize in any way the correct word.)

Then say:

Now we will do number 1.   Listen for pig — pig, big, dig, pick.
Now we will do number 2.   Listen for lamp — lamb, lap, lamp, limp.
Now we will do number 3.   Listen for which — witch, wish, which, hitch.
Now we will do number 4.   Listen for find — vine, fine, bind, find.
Now we will do number 5.   Listen for tickle — tinkle, pickle, tickled, tickle.
Now we will do number 6.   Listen for father — farther, fodder, father, feather.
Now we will do number 7.   Listen for whether — whether, weather, whither, heather.
Now we will do number 8.   Listen for found — fond, fund, fount, found.
Now we will do number 9.   Listen for cashing — crashing, cashing, catching, clashing.
Now we will do number 10.   Listen for pitcher — picture, pincher, pitcher, pitchers.
Now we will do number 11.   Listen for metal — metal, nettle, medal, mental.
Now we will do number 12.   Listen for distant — distance, instant, dissonant, distant.
Now we will do number 13.   Listen for line — line, lime, lion, lined.
Now we will do number 14.   Listen for loaves — loathes, loaves, loafs, lows.
Now we will do number 15.   Listen for crutches — crutches, crunches, crushes, clutches.
Now we will do number 16.   Listen for splatter — spatter, splutter, splatter, platter.
Now we will do number 17.   Listen for sink — sick, sink, sing, zinc.
Now we will do number 18.   Listen for invisible — invincible, invisible, divisible, visible.
Now we will do number 19.   Listen for muzzle — muscle, muzzle, muzzled, nuzzle.
Now we will do number 20.   Listen for clothespins — close pens, class pins, clothespin, clothespins
Now we will do number 21.   Listen for construction — constriction, instruction, conduction, construction.
Now we will do number 22.   Listen for conservation — consternation, conservation, conversation, consummation.
Now we will do number 23.   Listen for tan pens — tin pans, ten pins, tan pens, tin pens,
Now we will do number 24.   Listen for heat mush — heat much, eat mush, heat mush, eat much.
Now we will do number 25.   Listen for fire place — far place, fire plays, fire plates, fire place.

MOTOR TEST 1.   Copying Text

Follow the directions on the test blank exactly. Be very careful to see that the children start and stop promptly on this test.

MOTOR TEST 2.   Cross Out Test

Follow the directions on the test blank exactly. Be very careful to see that the children start and stop promptly on this test.

LANGUAGE TEST.   Vocabulary

Read the directions and samples to the children. See that the samples are understood. Then read aloud slowly each numbered group. Be careful not to stress the correct answer, but give exactly the same intonation to each pair of words. At the end of each group allow reasonable time for the children to underline one pair. This whole test is read aloud by the teacher.

MONROE SHERMAN
MONROE-SHERMAN APTITUDE TESTS

DIRECTIONS

VISUAL TEST 1.   LETTER MEMORY

Materials for this test are the large cards with nonsense
words printed on them. Show each card for five seconds
exactly. Allow reasonable time between each word for the
children to write. See that the children do not begin to
write before the card is removed. Never show the cards
again.

VISUAL TEST 2.   FORM MEMORY

Materials for this test are the large cards with figures
drawn on them. Show each card ten seconds exactly. Allow
reasonable time for the children to draw after each card
is shown. See that the children do not begin to draw before
the card is removed. Never show the cards again.

AUDITORY TEST 1.   LETTER MEMORY

After reading the directions on the test blank to the
children say, "Listen for the first word. Do not write
until I have finished." See that the children do not
write until you have finished spelling aloud the word.
Read the letters at the rate of one per second. Allow
time for the children to write after each word. The
nonsense words are follows:

1. o - m
2. 1 - u
3. t - a - s
4. m - e - y
5. f - 1 - o - b
6. s - p - a - g
7. w - h - u - g - g
8. t - r - o - m - e

9. s - k - e - n - a - r
10. g - r - e - v - i - k
11. a - 1 - i - n - n - a - r
12. y - a - p - r - o - i - f
13. m - a - f - a - p - a - s - e
14. s - q - u - o - g - e - 1 - t
15. h - e - t - h - o - s - e - 1 - t
16. b - r - i - a - g - o - n - t - y

AUDITORY TESTS

Letter Memory

Directions: The teacher will spell aloud the letters of some nonsense words. Listen carefully and when she says, "write", write as many of the letters as you can remember.

1._____

2._____

3._____

4._____

5._____

6._____

7._____

8._____

9._____

10._____

11._____

12._____

13._____

14._____

15._____

16._____

Score_____
(Number of nonsense words correct)

AGE

Per-cen-tile	8	9	10	11	12	13	14	15+
90	10	11	11	11	11	14	14	15
80	9	10	10	11	11	12	12	13
70	9	9	9	10	10	11	11	12
60	8	9	9	10	10	11	11	12
50	8	8	9	9	10	10	10	11
40	8	8	8	9	9	10	10	11
30	7	8	8	8	9	9	9	10
20	7	7	7	7	8	8	8	9
10	6	6	6	6	7	7	7	8

Discrimination and Orientation

Directions: This is a test to see how well you can listen. Wait until the teacher tells you what to do

Sample: boot   bat   beat   bit

Sample: X   X   X   X

1.	X	X	X	X
2.	X	X	X	X
3.	X	X	X	X
4.	X	X	X	X
5.	X	X	X	X
6.	X	X	X	X
7.	X	X	X	X
8.	X	X	X	X
9.	X	X	X	X
10.	X	X	X	X
11.	X	X	X	X
12.	X	X	X	X
13.	X	X	X	X
14.	X	X	X	X
15.	X	X	X	X
16.	X	X	X	X
17.	X	X	X	X
18.	X	X	X	X
19.	X	X	X	X
20.	X	X	X	X
21.	X	X	X	X
22.	X	X	X	X
23.	X	X	X	X
24.	X	X	X	X
25.	X	X	X	X

Score_____
(Number right)

AGE

Per-cen-tile	8	9	10	11	12	13	14	15+
90	22	23	23	24	24	24	24	25
80	21	22	22	23	23	23	23	24
70	20	21	21	22	22	23	23	24
60	19	20	20	21	21	22	22	23
50	18	19	19	21	21	21	21	22
40	17	18	18	20	20	21	21	22
30	15	17	17	19	19	20	20	21
20	13	16	16	18	17	20	20	21
10	7	13	14	17	17	18	18	19

MOTOR TESTS

Copying Text

Directions: Copy this little story as quickly and plainly as you can. When the teacher says "Stop", hold up your pencil.

Allow 1½ minutes

A little boy lived with his father in a large forest. Every day the father went out to cut wood. One day the boy was walking through the woods with a basket of lunch for his father. Suddenly he met a huge bear. The boy was frightened, but he threw a piece of bread and jelly to the bear.

Score_____
(Number of words written correctly)

AGE

Percentile	8	9	10	11	12	13	14	15+
90	26	27	32	37	43	46	46	48
80	21	23	29	35	38	42	44	46
70	22	24	27	33	37	40	43	44
60	20	23	26	31	36	38	42	43
50	18	20	25	29	33	36	39	40
40	14	19	24	28	31	34	37	38
30	12	17	23	26	30	32	36	37
20	11	15	21	23	27	28	34	35
10	10	12	18	21	23	26	28	30

Crossing Out Letters

Directions: In every other word there is a letter "a". Cross out all of the a's you can find. Remember there is one in every other word. Do it this way: she/k puk v/rone le /net.

Allow 1 minute

Bot ralentch tokel stad voulte san cherm   3

anoos. Evidid wheal oron vade su av   7

olein sair newok eaey ki poleat selur   10

laes ov prusath. Toshel wanetor tuk   13

splenat olor wark lishes eator, thesur   16

squal se haed sunch, iga niding. Ballon   20

luzzevs thail jeikes, asselum mey jaublet.   23

Mo shoam kleidorp pae synoghet lanke.   26

Prounth ab shill veroaki spleevo ta thrun   29

ake squiton achorles ev sloak dunket,   32

apporenice woll. Lackech woesp traskel   35

wois appin ovilt anevish. Drist flunoat,   38

hispel adenoll, dite risha thi havod hevod   41

thenna. Thop calch eline yeating zellos   44

athern pitoe tad wroke prall ven acholet   48

xeb. Cholat wheb whay, slooter anenine   51

glotes oda morest aberove, lin thoak drist   54

penota, ideok, wark lishes nald neth   57

wonat spliger athern wosk denna.   60

Score_____
(Number of a's crossed out)

AGE

Percentile	8	9	10	11	12	13	14	15+
90	32	33	34	42	47	51	51	52
80	29	31	33	38	42	48	48	49
70	27	29	31	35	39	45	45	46
60	25	27	29	33	38	43	43	44
50	24	26	27	32	35	40	40	41
40	23	25	26	30	34	38	38	39
30	22	24	24	28	32	36	36	37
20	21	22	23	26	29	34	34	35
10	19	20	21	23	26	30	30	31

DIAGNOSTIC APTITUDE PROFILE

(Monroe Sherman)

Z ile	Vis. 1	2	Aud. 1	2	Mot. 1	2
90						
80						
70						
60						
50						
40						
30						
20						
10						
0						

SUPERIOR
AVERAGE
INFERIOR

Appendix D

McInnis Tests

LANGUAGE PROCESSING ASSESSMENT, REVISED ED.
by
Philip J. McInnis © 6/1995

Level A Symbol (cube) to Word Matching. Use five clear, or same color, cubes.

1. "These cubes are each going to say a number—this one says one, this one says two (place 2 cubes in a row in front of child). What does this one say (pointing to the second)?"
2. "Place the blocks in front of you to say one, two, three, four." Child to respond. Then, "What does this one say (pointing to fourth), and this one (point to second)?"
   Must be correct on all.   **P - F** _____

Level B Sound to Word Matching. Child with eyes closed or back to examiner.

Clap twice. "I clapped my hands two times, you clap your hands two times." Clap four times. "Now you clap like I did." (Do not state the number.) Clap three times. "Now you clap like I did."
Must be correct on all.   ~   **P - F** _____

Level C Word to Word Matching.

1. "Say <u>one, two, three</u>." Response. "Now say <u>one, three</u>." Pause. "What number did we forget?"   _____
2. "Say <u>eye, nose, ear</u>." Response. "Now say <u>eye, nose</u>." Pause. "What part did we forget?"   _____
3. "Say <u>red, blue, green</u>." Response. "Now say <u>blue, green</u>." Pause. "What color did we forget that time?" _____
   Two of three must be correct.   **P - F** _____

Level D Two Syllable Segmentation: Compound and Two Syllable Words

I. Compound Words	sail(boat)	rain(bow)	____
	(sun)shine	(tooth)paste	____
II. Two Syllable Words	un(der)	dol(phin)	____
	(tim)ber	(win)dow	____

Directions: "Say _____." Response. "Say __ again, but don't say (___)."
Pass: One of each omitting initial or final.

                                                                         P - F _____

Level E Three Syllable Segmentation

I. Compound Words	(tea)kettle	butter(cup)	water(fall)	____
II. Accented 2nd Syllable	(va)cation	(fan)tastic	(gi)gantic	____
III. Accented 1st Syllable (2nd syllable = cvc or vc)	(car)penter	(val)entine	(cal)endar	____
IV. Accented 1st Syllable (2nd syllable = v)	(hol)iday	(mar)igold	(bar)itone	____

Directions: "Say _____>" Response. "Say ___ again, but don't say (___)."
Pass: 2 of 3 at each unit within the Level.   **P - F** _____

The goal for the end of kindergarten is to pass Level E - III.

<u>Level F</u> Omitting the Initial Phoneme in a Word

/t/ape   /m/eat   /c/all   /p/age

Directions: "Say _____." Response. "Now say it again, but don't say /__/." Be certain to use the letter sound only. *Pass: 3 of 4*   P - F _____

<u>Level G</u> Substituting the Initial Consonant in a Word

/p/ack   /s/   /t/ake /l/   /j/ust /d/   /b/ill /m/

Directions: "Say _____." Response. "Now say it again, but instead of /__ /, say /__ /." Use sound of the letter only. *Pass: 3 of 4*   P - F _____

Note: If it is December of first grade and the child is <u>only</u> able to process through Level G, then (s)he should be allowed to read a linguistic reader such as SRA Linguistics, Merrill Linguistics, Palo Alto, or the Miami Linguistic Readers. If a remedial student is able to process <u>only</u> through Level G, continue a Linguistic series with the primary grade child and support with the Decoding Keys for Reading Success, McInnis. Stress the LLP activities for all, especially the remedial student.

If in December of first grade the child is able to process through Levels H & I, you may feel secure in allowing them to use a phonetic, a whole word (look-say) or Whole Language approach to reading. If a child is unable to successfully complete Level G, they must memorize every word in order to read because they do not have the <u>process</u> together. Hard-to-teach children most often have memory problems (it is part of what makes them hard-to-teach) and <u>must</u> have the process together in order to continue to develop as competent readers.

<u>Level H</u> Substituting the Initial Phoneme of a Consonant Blend

/b/lack /s/ ___   /b/rim /g/ ___   /s/low /f/ ___   /d/rag /b/ ___
Directions: "Say ____." Response. "Now say it again, but instead of /__/, say /__/."
Pass: 3 of 4   P - F _____

<u>Level I</u> Omitting the Final Syllable in a Three-Syllable Segmentation

remem(ber) ___   holi(day) ___   diso(bey) ___ octo(pus) ___

Directions: "Say _____." Response. "Now say it again, but don't say ____."
Pass: 3 of 4   P - F _____

Note: Levels H & I are at about the same degree of difficulty if the program has been followed as outlined. Variations will occur if one Level is stressed more than the other. Resolve a discrepancy by more attention to the weaker Level. See the activities built into the Guide.

Note II: The One-Minute Activities should be continued daily in order to accomplish the automaticity of the low level skills which is essential for the development of reading comprehension.

Level I Substituting Either a Short or Long Vowel in the Medial Position in a Word

I.   p/a/t /i/ ___   h/u/t /a/ ___   m/o/d /a/ ___   p/i/t /e/ ___ (*sound* of <u>v</u>)

II. b/i/ke /a/ ___   l/a/me /i/ ___   p/i/ke /o/ ___   c/a/pe /o/ ___ (*name* of <u>v</u>)

Directions: "Say ____." Response. "Now say it again, but instead of /__/(name) say /__/"
Remember <u>sound</u> only for short vowel and <u>name</u> only for long vowel.
Pass: 3 of 4 at each Level   **P - F** _____

Level K Substituting the Second Phoneme in a Consonant Blend

f/l/ee /r/ ___   s/w/ing /t/ ___   s/n/ap /l/ ___   p/r/ank /l/ ___

Directions: "Say ____." Response. "Now say it again, but instead of /__/, say /__/."
Pass: 3 of 4   **P - F** _____

Level L Substituting the Final Consonant in a Word

ha/d/ /t/ ___   ca/p/ /b/ ___   be/d/ /n/ ___
fa/c/e /m/ ___   la/k/e /t/ ___   bi/t/e /k/ ___

Directions: "Say ____." Response. "Now say it again, but instead of /__/, say /__/."
(<u>Ask the short vowel combinations first</u>). *Pass: 5 of 6*   **P -F** _____

Passing is indicated by 75 to 83%. However, if the child is slow with the responses (5 seconds plus) or just meets the passing criteria, more reinforcement is indicated. It is recommended that the One-Minute Activities be continued throughout the students school career for remedial students grades 1—12. Improving phonemic awareness will result in better readers and spellers and the already good readers will enhance their already good skills.

Note: For remedial or developmental purposes, there are more than 1000 Language Processing activities for grades K - 12 in <u>A Guide To Readiness & Reading: Language Processing & Blending</u>, McInnis. ARL, 2452 Rte 364, Penn Yan, NY 14527

TEST FOR SOUND/SYMBOL RELATIONSHIP
by
Philip J. McInnis

Step I. Dictate the basic sounds of the letters in <u>isolation</u>. <u>Do not</u> say the key word. The key word is only as an aid to the examiner. Use short vowel sounds only. The student will respond by writing the letter representing the sound.

Step II. Consonant Digraphs. Two letters giving one sound are digraphs. Although there are both consonant and vowel digraphs, we test only the consonants. If testing one student at a time, dictate in isolation, if the child does not respond, then present the key word. In a group situation, present the key word.

1. ch	(chick)		5. ph	(phone)
2. sh	(shoe)		6. th	(thumb) voiceless or soft sound
3. th	(them)		7. gh	(laugh) "gh" saying "f" - dictate key word
4. wh	(wheel, when)			

Step III. Consonant Blends. Consonant blends are differentiated from digraphs because each letter retains its separate sound. If testing one student at a time, first present in isolation and, if no response, present again with the key word. The sound may be repeated in either a single or group presentation. Response to sound only = recall level; response to sound & key word = recognition.

<u>as in</u>

1. a	(apple)	1. bl	(blot)	15. sl	(sled)		
2. t	(turtle)	2. br	(broom)	16. sm	(smoke)		
3. c	(cake)	3. cl	(clap)	17. sn	(snake)		
4. d	(dinosaur)	4. cr	(crab)	18. sp	(spot)		
5. m	(mittens)	5. dr	(drum)	19. spl	(splash)		
6. l	(leaf)	6. dw	(dwarf)	20. spr	(spring)		
7. h	(hat)	7. fl	(flag)	21. squ	(squirrel)		
8. g	(gum)	8. fr	(frog)	22. st	(stare)		
9. s	(sun)	9. gl	(glob)	23. str	(street)		
10. o	(octopus)	10. gr	(grape)	24. sw	(swan)		
11. n	(nest)	11. pl	(plane)	25. thr	(three)		
12. p	(penguin)	12. pr	(press)	26. tr	(tree)		
13. f	(fish)	13. scr	(scrap)	27. tw	(twenty)		
14. k	(kite)	14. shr	(shrimp)				
15. r	(rug)						
16. i	(igloo)						
17. b	(ball)						
18. w	(witch)						
19. j	(jello)						
20. u	(umbrella)						
21. z	(zebra)						
22. q	(queen)						
23. e	(Eskimo)						
24. y	(yellow)						
25. x	(fox)						
26. v	(violin)						

Appendix