Saskatchewan Learning

Teaching Students with Reading Difficulties and Disabilities

A Guide for Educators

2004

SUPPORTING student diversity

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Table of Contents

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1 Introduction

The purpose of this resource is to assist educators in teaching students who are experiencing significant difficulties, or who have a disability in reading and written expression. The document provides a general description of learning disabilities with a focus on the most common type of disability–reading disability (Kibby & Hynd, 2001). The terms *reading disability, reading disorder*, and *dyslexia* are used interchangeably in the literature. For the purposes of this document, the term *reading disability* will be used.

Proficient reading and writing skills are critical to success. If students are not competent readers, they are at risk for academic, behavioural, social and emotional difficulties. Students with learning disabilities have the potential to be successful academically and socially. Teachers can change the trajectory for children at risk for failure in reading by intervening early and providing explicit, intensive, and extensive instruction. The expectation is that students are taught listening, speaking, reading, writing, viewing, and representing skills throughout their school careers. When students continue to struggle with the acquisition of proficient literacy skills, appropriate adaptations need to be made to enable them to successfully meet the demands of the curriculum.

"Teaching reading to adolescents is both rewarding and frustrating; it's a science and an art. It's making mistakes and growing from them. It's the most important thing I do as a teacher." (Beers, 2003, p. 22)

Success is dependent on educational programming that is suited to the student's individual strengths, needs, and learning characteristics. This resource provides information on assessment, instruction, assistive technology, transition planning, and self-advocacy for students with reading and written expression difficulties and disabilities. Information is based on current research and effective practices in the education of students with reading disabilities. The suggested strategies build on Saskatchewan Learning curricula and supporting resources.

2 Understanding Learning Disabilities

2.1 National Definition

2.2 Types of Learning Disabilities

- Reading Disability
- Written Expression Disorder
- Mathematics Disorder
- Nonverbal Learning Disability

2.3 Etiology

- Neurobiological Differences
- Genetic Factors
- Other Risk Factors

2.4 Diagnosis of Learning Disabilities

- Difficulties Associated with a Diagnosis
- Parent Involvement

2.5 Student Strengths

2.6 Skill Areas Associated with Learning Disabilities

- Receptive and Expressive Language Skills
- Auditory/Phonological Processing
- Visual Processing
- Visual-Motor Processing
- Attention
- Memory
- Metacognition
- Study and Organizational Skills
- Social Skills

2. Understanding Learning Disabilities

The hallmark characteristic of a learning disability is an individual's academic underachievement in reading, writing, and/or mathematics despite the presence of average to above average intelligence, appropriate instruction, regular school attendance, and favourable environmental factors. The Learning Disabilities Association of Canada (LDAC) provides a national definition of learning disabilities (see Figure 2.1).

Figure 2.1. Official National Definition of Learning Disabilities

"Learning Disabilities" refer to a number of disorders, which may affect the acquisition, organization, retention, understanding, or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency.

Learning disabilities result from impairments in one or more processes related to perceiving, thinking, remembering, or learning. These include, but are not limited to language processing, phonological processing, visual spatial processing, processing speed, memory and attention, and executive functions (e.g., planning and decision making).

Learning disabilities range in severity and may interfere with the acquisition and use of one or more of the following:

- oral language (e.g., listening, speaking, understanding);
- reading (e.g., decoding, phonetic knowledge, word recognition, comprehension);
- written language (e.g., spelling and written expression); and
- mathematics (e.g., computation, problem solving).

Learning disabilities may also involve difficulties with organizational skill, social perception, social interaction, and perspective taking.

Learning disabilities are lifelong. The way in which they are expressed may vary over an individual's lifetime, depending on the interaction between the demands of the environment and the individual's strengths and needs. Learning disabilities are suggested by unexpected academic under-achievement or achievement which is maintained only by unusually high levels of effort and support.

Learning disabilities are due to genetic and/or neurobiological factors or injury that alter brain functioning in a manner which affect one or more processes related to learning. These disorders are not due primarily to hearing and/or vision problems, socio-economic factors, cultural or linguistic differences, lack of motivation, or ineffective teaching, although these factors may further complicate the challenges faced by individuals with learning disabilities. Learning disabilities may co-exist with various conditions including attentional, behavioural and emotional disorders, sensory impairments, or other medical conditions.

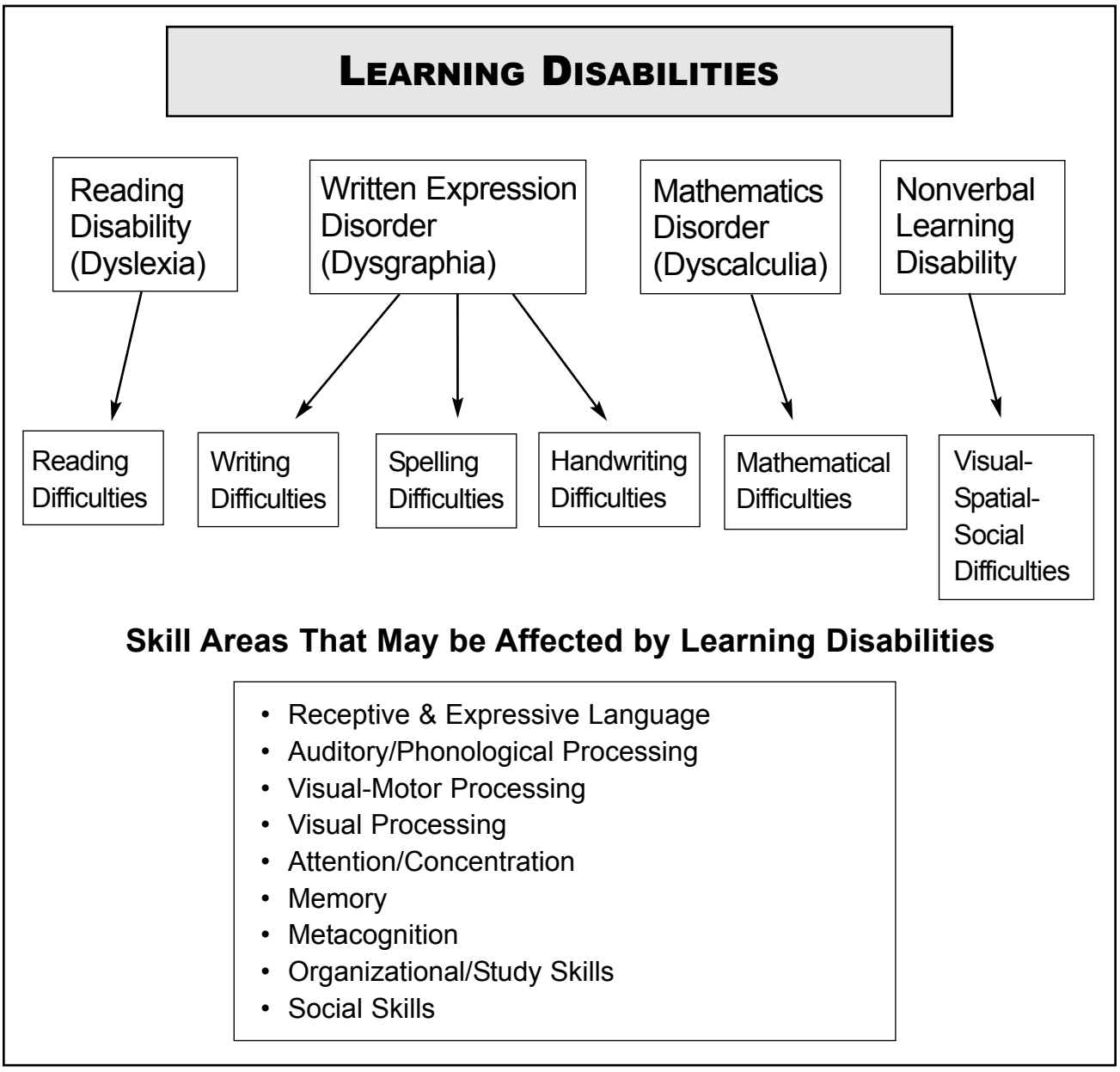
For success, individuals with learning disabilities require early identification and timely specialized assessments and interventions involving home, school, community, and workplace settings. The interventions need to be appropriate for each individual's learning disability subtype and, at a minimum, include the provision of:

- specific skill instruction;
- accommodations;
- compensatory strategies; and
- self-advocacy skills.

From Official Definition of Learning Disabilities by Learning Disabilities Association of Canada, 2002. Reprinted with permission.

Learning disabilities vary in terms of impact and may involve many skill areas. Several subtypes of learning disabilities are outlined in Figure 2.2. Individuals with a learning disability may experience difficulties with auditory processing, visual processing and/or motor skills, attending, and remembering information. Social interactions and relationships may also be negatively impacted by a learning disability. Approximately 75 percent of students diagnosed with learning disabilities manifest social skill deficits that distinguish them from their non-learning disabled peers (Sridhar & Vaughn, 2001). Although there are general characteristics associated with each type of learning disability, it is important to remember that every student is unique.

Figure 2.2. Learning Disabilities and Specific Subtypes



For further details refer to the diagnostic criteria from the DSM-IV TR, American Psychiatric Association.

2.2 Types of Learning Disabilities

Reading Disability

An individual with a reading disability demonstrates difficulties in reading skills that are unexpected in relation to age, cognitive ability, quantity and quality of instruction, and intervention. The reading difficulties are not the result of generalized developmental delay or sensory impairment (Lundberg & Hoien, 2001; Mather & Goldstein, 2001).

Reading disability may be characterized by:

- difficulties in single word reading;
- initial difficulties decoding or sounding out words;
- difficulties reading sight words;
- insufficient phonological processing; that is, the understanding that sentences are comprised of words, words are made up of syllables, and syllables are made up of individual sounds or phonemes;
- expressive or receptive language difficulties; and
- difficulties with comprehension.

The processing difficulties may also be revealed in spelling and writing. Written expression disability and mathematics disability are commonly found in combination with a reading disability (American Psychiatric Association, DSM-IV-TR, 2000).

"How much energy it takes to be him–just to do things that most of us do unconsciously –just to maintain his balance. Being learning disabled is a full-time job." (Weinstein, 2003, p. 152)

For students with a reading disability, the reading difficulties are persistent. Even though an individual's reading ability may eventually reach an acceptable performance, it often continues to be characterized by a slower reading rate.

Written Expression Disorder

Individuals with a written expression disorder have significant difficulties in using writing to communicate meaning. They may have trouble formulating sentences, organizing paragraphs, using correct grammar and punctuation. They may have difficulty generating ideas to write about and can be slow to get their thoughts on paper. Their writing may be disorganized and incoherent and they may display excessively poor handwriting. Their ability to spell is often poorly developed. The difficulties in written expression significantly interfere with academic achievement or with daily living activities that require writing skills (American Psychiatric Association, DSM-IV-TR, 2000; Payne & Turner, 1999).

Mathematics Disorder

Mathematics disorder refers to problems with the language component of mathematics: understanding concepts, decoding written problems into mathematical symbols, and following a sequence of steps. Students diagnosed with a disability in mathematics may have a difficult time recalling and understanding basic facts and often cannot remember the multiplication tables despite spending hours trying to memorize them. Reading mathematical signs and copying numbers or figures correctly may be difficult for these students. They may also have difficulties with direction and orientation (American Psychiatric Association, DSM-IV-TR, 2000; Payne & Turner, 1999).

Nonverbal Learning Disability

Nonverbal learning disabilities (NLD) are not as well known or understood as language-based learning disabilities. In order to have a diagnosis of NLD a student must have a significant number of the strengths and weaknesses of the disorder (Whitney, 2002). A student with a nonverbal learning disability would demonstrate some of the following characteristics (Rourke, 2001):

Strengths in:

- using words in an adult fashion;
- large vocabularies;
- well-developed verbal skills;
- auditory perception;
- simple motor skills; and
- memorizing information.

Difficulty with:

- interpreting and comprehending nonverbal cues;
- the functional use of language in everyday conversations;
- social perception, social judgement, and social interactions;
- spatial orientation;
- motor coordination;
- organizing materials;
- encountering new information, situations, and/or transitions;
- seeing the big picture; and
- a logical sense of time.

During the school years a child with nonverbal disability may experience difficulty in mathematics, science, printing and writing, logical ordering and sequencing, organizing information, and nonverbal social skills (Rourke, 1989; Thompson, 1997).

Teachers can support students with a nonverbal disability by:

- breaking down complex tasks into steps;
- providing visual organizers that outline material to be covered;

- providing schedules and notifying students when there are changes;
- using discussion formats rather than lectures;
- assisting students to interpret social cues such as facial expressions and tones of voice; and
- preparing students for transitions (Whitney, 2002).

2.3 Etiology

Research on possible causes and the exact nature of learning disabilities is ongoing. The literature identifies several possible contributing factors. These include neurobiological differences, genetic factors, and other risk factors.

Neurobiological Differences

Through neuroimaging techniques it has been determined that there are subtle structural and functional brain differences in individuals with learning disabilities (Kibby & Hynd, 2001). Brain imaging techniques have identified neural pathways involved in reading. The parieto-temporal system and Bocca's area are located on the left side and the front of the brain respectively. These areas are linked to analyzing words and linking sounds to letters. Beginning readers and people with a reading disability show most activity in these areas.

As readers become fluent they show most activity in the occipito-temporal system located at the back of the brain. This area is a hub of activity, receiving information about how a word looks, how it sounds, and what it means. It allows readers to decode automatically, which is necessary for fluency. Those with reading disabilities demonstrate a pattern of underactivity in this area of the brain. This is true for people with reading disabilities of all languages and all ages (Shaywitz, 2003).

Genetic Factors

Developmental differences of the brain associated with learning disabilities are thought to be influenced by genetic factors. Genetic markers for reading disabilities have been identified on chromosomes 6 and 15 (Kibby & Hynd, 2001).

Learning disabilities may run in families. Parents of a student with a learning disability may indicate that they had similar learning patterns in school. However, it is important to remember that a parent's learning disability may manifest differently in the child.

Other Risk Factors

Other possible contributing factors include problems during pregnancy caused by the use of tobacco, alcohol, and/or other drugs. Mothers who smoke may be more likely to have low birth weight babies who may be at risk for a variety of problems. Alcohol and drugs consumed by a mother during pregnancy transfer directly to the fetus. Environmental toxins are also being investigated as possible causes of learning disabilities (Sousa, 2001).

2.4 Diagnosis of Learning Disabilities

Difficulties Associated with a Diagnosis

The diagnosis of a learning disability is not a simple process nor is it an exact science. Differentiating between learning problems and learning disabilities can be complicated. Students may present with academic and social difficulties for many reasons.

Learning disabilities have a neurological basis, and must be differentiated from normal variations in academic attainment and difficulties due to:

- lack of opportunity;
- incorrect instruction;
- cultural factors;
- impoverished or chaotic living environment; or
- disruptive behaviours.

Learning disabilities are also not due primarily to:

- sensory impairment (visual or hearing);
- physical challenges (motor);
- cognitive disabilities;
- emotional disturbance;
- environmental influence (environmental disadvantage); or
- cultural or language differences.

Sorting through the myriad of possibilities contributing to a student's inability to acquire proficient reading skills is complex. As a result, information is gathered from parents, teachers, speech pathologists, psychologists, and other professionals in order to assist in the process of a formal diagnosis. The purpose of a diagnosis is to better understand the abilities and needs of students and to better inform instruction. It is important to note that not every assessment will result in a diagnosis.

Traditionally, a discrepancy model has been used to make the diagnosis of a learning disability. The discrepancy is based on

results from intelligence and academic achievement tests. An analysis is made of the discrepancy between the student's obtained scores on the intelligence and achievement tests. The essence of the discrepancy model is that academic achievement performance falls well below expectations based on intelligence. If a significant discrepancy is found, then a diagnosis of a learning disability is made.

According to many researchers (Feifer & De Fina, 2000; Lyon, et al., 2001; National Association of School Psychologists, 2003; Siegel, 2003), there are numerous concerns regarding the discrepancy formula.

- It is unclear which IQ score should be used with the achievement test to establish a discrepancy (i.e., the Verbal, Performance, or Full Scale IQ score).
- There is no universal agreement as to what the discrepancy should be (e.g., 1, 1.5, or 2 standard deviation[s]).
- The discrepancy formula has been inconsistently interpreted and/or misinterpreted.
- A discrepancy formula precludes early identification due to the inherent problems associated with standardized tests. For example, a 6-year-old child can get only two correct answers on a standardized reading test and still obtain a standard score within the average range. Thus, even though a child's skills may be clearly delayed, the obtained score on the standardized test may not indicate there is a problem.
- A discrepancy model promotes a "wait and fail" policy that delays interventions. If a teacher is waiting for a diagnosis before interventions are put in place, valuable learning and teaching time is lost.
- Research has shown that intelligence test scores may decrease over time with children who are not reading (Stanovich, 2000).

As a result of recent research, there is a movement away from the ability-achievement discrepancy model and a move toward the diagnostic criteria of significant underachievement and insufficient response to intervention (National Association of School Psychologists [NASP], 2003). The purpose of assessment should be early identification of students who are at risk for having difficulties learning to read. The ultimate goal should be prevention of reading problems and the provision of early intervention for students who are experiencing difficulties (Lyon, et al., 2001). Many psychologists have already made a move toward a change in the diagnostic process.

The educational team members (e.g., Speech Language Pathologist, Psychologist, and Learning Assistance Teacher) use a variety of tests to assess intelligence, academic achievement, visual perception, memory, and language processing. The data from the formal and informal assessment tools is analyzed in addition to information from the student's history. This may include:

- student's family and school history;
- attendance records;
- type of instruction received;
- duration of intervention;
- environmental factors; and
- other aspects that may have an impact on the child (e.g., trauma, other disorders such as ADHD, FASD, anxiety disorder, depression, medical conditions).

The diagnostic process is complex. Psychologists use the assessment information, diagnostic criteria, and their best professional judgement to make the decision whether an individual has a reading disability.

The diagnosis of a learning disability is important for many reasons. It provides teachers and parents with specific information about an individual, and guides appropriate interventions. A diagnosis verifies that a student has a disability and is not just lazy or not trying hard enough. The diagnosis may enhance the individual's understanding of their disability as a wealth of literature exists to substantiate the difficulties they are experiencing. The diagnosis may also give students access to many services and programs such as employability assistance and supports in post-secondary education. Details of available programs are outlined in Appendix I. Although the diagnosis is helpful for many reasons, it is important to emphasize that teachers should not wait for a formal diagnosis prior to providing interventions for students.

As previously indicated, there are many effective informal assessment measures, interventions, and adaptations a classroom teacher can implement prior to a formal diagnosis of a learning disability. It is critical that children are identified early on in their school career and appropriate interventions are promptly put in place. As Lyon, et al. (2001) indicate, without early intervention, the poor first grade reader almost invariably becomes a poor middle school reader, high school reader, and adult reader.

Parent Involvement

All families react differently to the diagnosis of their child. Having a child with a learning disability may be very challenging. It is important to recognize that the reaction experience of each family is unique. Information and community resources such as the Learning Disabilities Association of Saskatchewan may assist families at this time. Continued home-school communication is increasingly important as the team gains greater understanding of the strengths and needs of the student. The parents' role is critical. Parents represent long-term advocacy and support for their child and must have a meaningful, integral, and authentic role as a team member.

2.5 Student Strengths

Educators recognize that students learn in different ways and have unique patterns of strengths and needs. For example, a student who is not doing well in reading may show an aptitude for other areas such as physical education, drama, or mathematics. Each student with a learning disability presents with his/her own learning style, needs, strengths, and interests. However, educators and parents may need to assist the student in identifying strengths and pursuing interests.

It is important for students with learning disabilities to identify an interest, hobby, or an area in which they can excel. Students need to see themselves as having something important to say, and to have an activity in which they feel successful and view themselves as "winners".

It is also important for students to have a clear understanding of their learning ability and disability. This understanding can provide the basis for building a positive self-image that will support the development of a competent and successful person. It may be helpful for parents and students to be aware of the many well-known successful people who have been diagnosed with a learning disability. Some of these include the businessman, Charles Schwab; the actor, Tom Cruise; the comedian, Jay Leno; the singer, Jewel; and the author of *Captain Underpants*, Dav Pilkey. "Let the student's strengths and not the disability define who they are as a person" (Shaywitz, 2003).

2.6 Skill Areas Associated with Learning Disabilities

There are various skill areas that may be affected when a learning disability is present. A student with a learning disability may experience difficulty in one or more of the areas outlined in Figure 2.3.

Figure 2.3. Skill Areas Associated with Learning Disabilities

Skill Areas:

Receptive and Expressive Language

Auditory/Phonological Processing

Visual Processing

Visual-Motor Processing

Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills

Receptive and Expressive Language Skills

A solid foundation in oral language is important for the development of literacy skills. The ability to understand the language you hear and to clearly express yourself are fundamental for the development of reading and writing skills. Students identified with a learning disability may present with receptive and expressive language deficits (see Table 2.1).

Table 2.1. Receptive and Expressive Language and Associated Difficulties

Receptive and Expressive Language	Associated Areas of Difficulty
Listening and Speaking	• expressive vocabulary; • using connecting words in speech (e.g., and, or, but); • explaining ideas; • understanding idioms and figurative language (e.g., "Lunch was on the house"); • understanding multiple meanings of words (e.g., "run", "set"); • understanding and using compound and complex sentence structures; • telling a story or talking about an incident in sequence (first, next, last); and • the pragmatic aspects of language (e.g., turn taking, repairing breakdowns, introducing a topic, maintaining a topic). *Note: these learning characteristics may also be associated with learning a second dialect or language.*

Adapted from Alberta Education (1996).

Skill Areas:

Receptive and Expressive Language

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Auditory/Phonological Processing:

The ability to comprehend oral information is critical for the development of literacy skills. As language skills develop, children first listen and speak, then read and write. Thus, reading and writing skills are based on one's receptive and expressive language.

If children have difficulty processing what they hear, it makes all aspects of literacy development difficult (see Table 2.2). For example, if one cannot perceive and discriminate individual words within a question, it is difficult to respond. To better understand this difficulty, it may be helpful to consider what it is like to listen to a person speaking another language. At first, it is difficult to know where one word begins or ends. The language may be perceived as a string of sounds. It might be difficult to readily detect the slight differences between words (e.g., ship/snip, leaf/leave). This is similar to the experiences of someone with an auditory processing disorder. The hearing acuity is intact; however, the individual may not readily pick up the auditory differences with which they are bombarded on a daily basis.

Table 2.2. Auditory/Phonological Processing and Associated Difficulties

Auditory/ Phonological Processing	Associated Areas of Dificulty
Perception – attending to and interpreting auditory information	• phonological processing (the ability to perceive and understand that speech is made up of sentences, words, syllables, and sounds); • acquiring phonemic awareness skills (rhyming, blending, segmenting, deleting sounds); • identifying initial, medial, and final sounds in words; and • articulation.
Discrimination – recognizing the differences between individual phonemes	• discriminating similar sounding letters (e.g., /b/ and /p/) (/f/ and /v/) (/d/ and /t/); and • hearing the differences in words such as "bat", "bit", "bet".
Closure – blending sounds	• blending and segmenting sounds and/or syllables within words; and • reading nonwords.
Figure-Ground – focusing on the dominant sound (teacher's voice) and ignoring background sounds (buzz from lights or fan)	• responding to oral questions; • taking notes during lectures, films, and documentaries; and • recalling the names of objects, letters, and numbers.
Memory – recalling information presented verbally	• mastering the essential features of grapheme (letter)/phoneme (sound) associations.
Sequential-Memory – reproducing information in correct order	• remembering the order of sounds in words (e.g., "flybutter" for "butterfly") ("membelia" for "memorabilia"); • imitating or pronouncing multi-syllabic words ("ambulance", "spaghetti", "exacerbate"); and • processing and sequencing the information heard.

Adapted from Feifer & De Fina (2000); Mather & Goldstein (2001); McCarthy & Warrington (1990); New Brunswick Department of Education (1999); Winzer (1996).

"My teacher used to say, 'Sound it out', when I couldn't read a word in school. But I couldn't then…If I could have, I would have." (Weinstein, 2003, p. 96)

Skill Areas:

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Visual Processing

Some students with a reading disability may have difficulty with visual processing (see Table 2.3). These difficulties exist in the absence of a visual impairment.

Visual processing refers to organizing, analyzing, and understanding a visual message. In order to read, sounds must be connected to abstract visual symbols (the alphabet). The alphabet must be learned and remembered. The subsequent ability to perceive and to remember a sequence of letters is necessary in the process of learning to read.

Table 2.3. Visual Processing and Associated Difficulties

Visual Processing	Associated Areas of Difficulty
Perception – attending to and interpreting visual information	• identifying letters and numbers; and • attending to signs in math.
Discrimination – discriminating between letters and words that look alike (e.g., b/d/, p/q/, nip/hip)	• reversing letters or numbers after the age of seven (e.g., "b" for "d", "15" for "51"); • transposing (saw/was, pirvate for private); and • inverting letters (w/m, n/u).
Closure – assembling puzzles, closing spaces between letters (e.g., rab-bit)	• learning how to form letters; and • forming letters correctly.
Figure-Ground – focusing on the foreground and ignoring the background	• copying from the board and/or textbook; • tracking (students may use finger to track when reading); • completing and/or using a separate answer sheet; and • locating specific words on a page or in a dictionary.
Memory – copying visual pattern	• remembering how letters look; • writing without prompting; and • remembering basic sight words.
Sequential-Memory – remembering common words and strings of letters in words	• remembering letter sequences; • spelling (upper elementary students continue to have a tendency to spell words how they sound rather than how they look); and • writing at an appropriate rate.

Adapted from Feifer & De Fina (2000); Mather & Goldstein (2001); McCarthy & Warrington (1990); New Brunswick Department of Education (1999); Rourke & Del Dotto (2001); Winzer (1996).

Visual-Motor Processing

One's ability to take in information through the visual channel and to combine it with motor responses is important for gross and fine motor skills. Gross motor integration involves coordinating the large muscle groups used to perform activities such as running, jumping, catching, throwing, and to maintain postural control. Fine motor integration involves coordinating small muscles in the fingers, hands, and wrists used to manipulate and control objects and tools.

Difficulty with visual motor processing may directly impact writing. Students may have difficulty copying from a board or book, writing within the lines, and may erase excessively. Individuals may also experience difficulties with spatial orientation and relationships. For example, maneuvering through spaces and organizing materials may be problematic. Table 2.4 outlines visual-motor difficulties that may be associated with a learning disability.

Table 2.4. Visual-Motor Processing and Associated Difficulties

Visual-Motor Processing	Associated Areas of Difficulty
Gross Motor Skills	• learning physical activities requiring coordination (riding a bike, catching a ball); and • walking or running (having an awkward gait).
Fine Motor Skills	• avoiding bumping into things; • using small objects and tools (scissors, fasteners, tying shoes); • learning to draw or print; and • holding a crayon, pencil, or pen correctly.
Spatial Processing Skills	• writing neatly; • sensing direction (north, south, east, and west); • orientating left-right and/or up-down; • going from place to place (finding classrooms in a large high school); • organizing belongings; and • organizing work on paper: (columns, paragraphs, spacing).

Adapted from Alberta Education (1996); Mather & Goldstein (2001).

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Visual Processing

Visual-Motor Processing

Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills

Attention

Attending is the ability to filter out information in order to maintain attention to the task at hand. Some students have difficulty attending to important information (see Table 2.5). Attention and concentration difficulties may reduce reading rate. If a student does not attend to new information, there is little chance of remembering it later. Students with attention difficulties may also demonstrate varying degrees of hyperactivity and/or impulsiveness.

Table 2.5. Attention and Associated Difficulties

Attention	Associated Areas of Difficulty
Focusing Attention – coming to attention	• settling down after recess and getting back to work; • avoiding daydreaming; • remaining focused; and • starting tasks.
Selective Attention – focusing on the most important stimulus	• selecting the relevant stimulus (e.g., listening to students whispering, lights buzzing, or fan humming from the overhead projector instead of listening to the teacher's voice); and • attending to important or relevant details.
Sustaining Attention – concentrating for a reasonable period of time	• completing assignments; • attending for an extended period of time; • following through on instructions; and • completing assignments punctually.
Dividing Attention – completing two tasks at one time	• listening to the teacher and taking notes at the same time; • listening to instructions and completing a task at the same time (e.g., science experiment, wood working, or home economics class); • organizing materials, activities, time; and • remembering instructions.

Adapted from Alberta Education (1996).

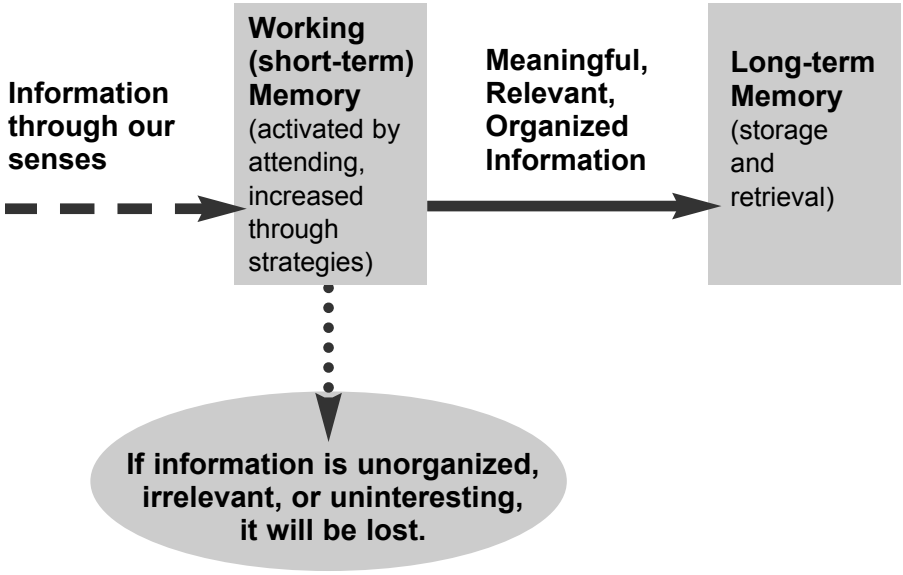
Memory

Information is received through the senses and when perceived and attended to, it can be held for a short time in working (short-term) memory. Depending upon its relevance and the way it is organized it may be moved and stored in long-term memory.

Short-term memory contains thoughts for the moment. When working memory is activated through strategies such as chunking, rehearsal, and elaboration, the capacity and duration for storing this information may be increased. In addition, working memory capacity may also be expanded if some of the mental processes are automated.

If students use only their working memory to decode print, they cannot comprehend well what they are reading. In order to read and comprehend fluently, it is necessary that decoding become automatic. If the information is relevant, interesting, and well organized it may be placed in long-term memory for permanent storage.

The active processes used to organize, to relate the new information to prior knowledge, and to store it in a meaningful way have implications for how easily the learner will be able to retrieve the information for future use (Alberta Education, 1996) (see Table 2.6). Teachers may report that a student with a reading disability appears to know the information one day but can't remember it another. The difficulty may not always represent memory as much as the way the information is processed. Working memory allows us to use our memory systems flexibly. It enables us to hold on to information by rehearsing it in our minds, to relate that information to prior knowledge, and to plan our future actions.



Skill Areas:

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Auditory/Phonological Processing

Visual Processing

Visual-Motor Processing

Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills

Table 2.6. Memory and Associated Difficulties

Memory	Associated Areas of Difficulty
Auditory Short- and Long-Term Memory **Visual Short and Long-Term Memory**	• recalling what was just read; • recalling rote information (e.g., days of the week, months of the year, mathematical facts); • memorizing poems, songs, passages (e.g., speeches, lines in a play); • remembering concepts or information from one day to the next; • repeating the same errors; • remembering familiar material but forgetting important details; • retrieving information quickly; and • timed tasks (oral or written).

Adapted from Alberta Education (1996).

Metacognition

Efficient learning involves the active control, coordination, and monitoring of learning processes and strategies. Campione, Brown & Ferrara (1982, p. 436) state that:

> Metacognition is knowledge about oneself as a learner, knowledge about the task, and knowledge about the skills and strategies needed to perform the task. Executive control is the process of selecting, monitoring and overseeing the effectiveness of learning based on feedback, and regulating learning by activating appropriate strategies.

In simplest terms, metacognition is thinking about your thinking. It serves the function of quality control. Metacognition is involved in the decisions learners make such as what to attend to; what is already known that might apply in a new situation; what memory strategy might be appropriate to organize, store, and retrieve the new information; and whether the first plan is working effectively. The learner considers questions such as: Do we need to change plans? Is it a good idea? Is it working?

Metacognitive functioning also involves coordinating the processes and strategies involved in learning (see Table 2.7). An important aspect of this coordination is the activation of processes to maximize generalization. Generalization involves recognizing that a strategy, information, or behaviour found useful in a familiar situation can be applied to a new situation. Transfer involves modifying the original strategy, information, or behaviour to fit a new situation. As this transfer becomes more automatic, a student has greater capacity for higher level thinking.

Skill Areas:

Receptive and Expressive Language

Auditory/Phonological Processing

Visual Processing

Visual-Motor Processing

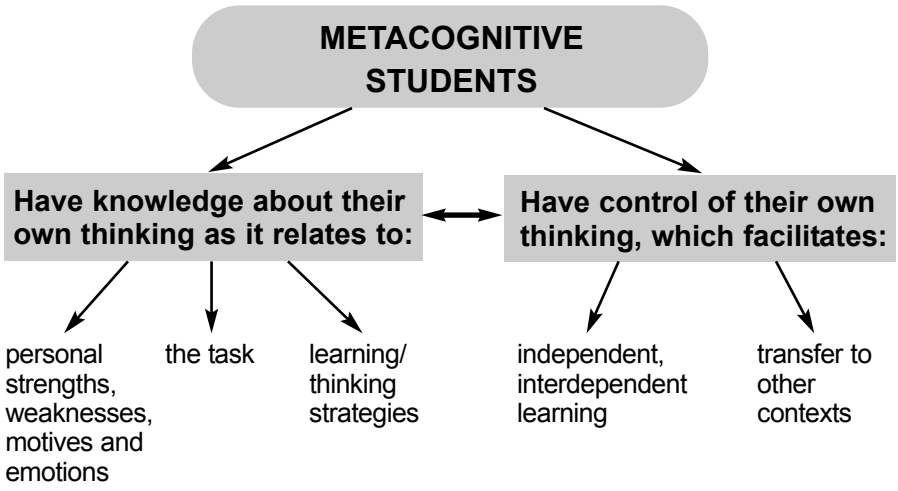
Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills



Adapted from Alberta Learning (1996).

Table 2.7. Metacognition and Associated Difficulties

Metacognition	Associated Areas of Difficulty
Active Control, Coordination, and Monitoring of Learning Processes and Strategies	• defining problems; • sorting relevant from irrelevant information; • generating alternative approaches to problem solving; • changing approaches when one doesn't work; • actively using strategies; • drawing on past knowledge and experience to solve new tasks (generalizing); • making predictions; • self-monitoring; • organizing thoughts and ideas; • being flexible in approaching problems; • planning; • systematically following through in executing plans; and • evaluating performance
Generalizing and Transfer	• applying previously learned information to new situations–generalizing and building bridges between past and present learning; • developing an adequate degree of original learning; • identifying the critical and relevant features of a situation; • identifying similarities among environments, actions, and feelings; and • associating between two learnings.

Adapted from Alberta Education (1996); Mather & Goldstein (2001); Sternberg & Spear-Swerling (1999); Winzer (1996).

Skill Areas:

Receptive and Expressive Language

Auditory/Phonological Processing

Visual Processing

Visual-Motor Processing

Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills

Study and Organizational Skills

The ability to organize oneself and use effective study skills is related to metacognitive and attention skills. Stopping and thinking about how you learn is important in the process of getting organized and preparing for assignments and examinations. Efficient learning is enhanced by the ability to organize materials and information and to complete tasks systematically. Students who are learning disabled often have difficulty in this area (see Table 2.8).

Table 2.8. Study and Organization Skills and Associated Difficulties

Study and Organization	Associated Areas of Difficulty
Metacognitive and Attention Skills	• organizing materials and work environment (books, locker, desk); • keeping track of assignments and/or materials; • bringing assignments home or back to school; • being punctual and/or keeping appointments; • completing highly structured work (essay); • setting goals; • prioritizing; • judging and managing time; • planning and scheduling; and • using strategies for studying and test-taking.

Adapted from Alberta Learning (1996); New Brunswick Department of Education (1999).

Social Skills

Socially competent individuals possess well-developed receptive and expressive language skills, a positive self concept, and a sense of control over their lives. Nonverbal communication skills (reading facial expressions and body language), paralinguistic information (sensitivity to the tone and intensity of a voice), attending skills, and impulse control also influence social skills.

Individuals with a learning disability typically have experienced academic struggles and feelings of failure. This negatively impacts self-concept and contributes to difficulties in social skills (see

Table 2.9). It is imperative that attention is given to the area of social skill development, peer group dynamics, and building on individual student strengths.

Table 2.9. Social Skills and Associated Difficulties

Social Skills	Associated Areas of Difficulty
Paralinguistic Skills	• interpreting auditory cues such as pitch, intensity, and rate of speech.
Nonverbal Communication Skills	• interpreting facial expressions, body language, gestures, and proximity.
Attention Skills	• maintaining concentration when interacting with others.
Pragmatic Language Skills	• following a conversation and responding in an appropriate manner; • taking the perspective of another person; and • repairing communication breakdowns.
Self-Concept	• maintaining positive self-esteem; • not submitting to peer pressure; • taking risks; and • not becoming too passive or aggressive.
Impulse Control	• controlling emotions (e.g., anxiety, anger, happiness).
Metacognitive Skills	• solving social problems; • generalizing or modifying social skills that have been learned; • adapting to different social environments (e.g., school, church, party, soccer game); and • understanding the implications of cause and effect.

Adapted from Alberta Learning (1996).

Skill Areas:

Receptive and Expressive Language

Auditory/Phonological Processing

Visual Processing

Visual-Motor Processing

Attention

Memory

Metacognition

Study and Organizational Skills

Social Skills

In summary, students with learning disabilities may have difficulties with receptive and expressive language skills, as well as with auditory/ phonological, visual, and visual-motor processing. They may also have deficits in the areas of attention, memory, metacognition, study and organizational skills, and social skills.

It is important to remember that every student diagnosed with a learning disability will present with his/her own unique learning profile. The degree to which students experience difficulties will vary. The areas of strengths and interests will also vary. It is important to determine and enhance supports for each student based on the individual's strengths and needs.

3 Reading Development and Instruction

3.1 Critical Elements in Reading Instruction

- Reading Comprehension
- Language Cues and Conventions
- Phonological Awareness and the Graphophonic Cueing System
- Phonics
- Vocabulary Development and the Semantic Cueing System
- Sentence Patterns and the Syntactical Cueing System
- Text Forms, Features, and the Textual Cueing System
- Author's Intent and the Pragmatic Cueing System
- Reading Fluency

3. Reading Development and Instruction

Reading is a complex process made up of several interlocking skills and processes (Tankersley, 2003). These skills and strategies are employed before, during, and after reading.

Reading is a process by which the reader makes personal connections with a text to construct meaning. Reading and responding to a text are integral parts of language learning. Effective readers employ a wide repertoire of meaning-making (comprehension) strategies that they can deploy independently with a range of texts. Effective readers understand and remember what they read. They can summarize and discuss the content and demonstrate their comprehension of the text. They can analyze and evaluate what they have read. Effective readers recognize words quickly and efficiently. They demonstrate high word recognition. They possess strong fluency skills. They read with good expression, intonation, pitch, and phrasing (see Table 3.1).

Table 3.1. Sample Reading Continuum

Emerging Phase (K-1)	**Early Developing Phase (Grade 1)**	**Developing Phase (Grades 1-5)**
Student knows: • Illustrations carry a message that can be "read". • Print carries a message. • Print in the environment carries messages in signs, labels, and logos. • Stories can be remembered and retold. Student: __shows interest and enjoyment in looking at books and listening to stories __holds book right-side up and turns pages from right to left __shows where (physically) the story starts and ends __imitates reading behaviours (e.g., turning pages and telling a story using the pictures) __uses "book language" (e.g., Once upon a time … Then … The end) __enjoys hearing favourite stories over and over again __recognizes some letters or words (e.g., own name, classroom labels, signs, and other environmental print) Notes:	Student knows: • What can be said can be written and read. • Print is read from top to bottom, left to right. • Words such as "letter", "word", and "sentence" are used to describe print features. • Texts are written in a variety of formats. Student: __shows interest in the meaning of words in books __reads back short experience stories written by teacher __follows a line of print on experience chart as it is read __follows a line of print in enlarged text __understands concept of word __recognizes own name in print and a few high frequency words __understands the concept of letter (matches capital letters with lower case letters) __recognizes word families __uses phonetic skills to decode unknown words __uses picture cues and context to make meaning __finger-points when reading independently __makes meaningful predictions and is able to support them __participates confidently in shared and guided reading __responds to reading in a variety of ways __uses content and knowledge of sentence structure to self-correct __demonstrates fluency and expression in oral reading Notes:	Student knows: • Reading is a process of constructing meaning. • Reading can be done for different reasons or purposes. • Readers use a variety of strategies. Student: __reads for a variety of purposes __relates previous experience and knowledge to what is read __visualizes what is being read __predicts and confirms content, events, and outcomes __makes and confirms inferences __draws conclusions __questions and adjusts strategy when meaning is unclear __recognizes cause and effect __finds main ideas and specific information __uses a combination of contextual, structural, and graphophonic clues __uses other supports (e.g., dictionary) to confirm meaning __recognizes multiple meaning of words including antonyms, synonyms, and homonyms __adjusts silent and oral reading rate __self-selects a variety of reading materials using certain criteria __uses self-correction strategies during independent reading __compares texts by various authors __recognizes similarities and differences among experiences, lifestyles, and cultures represented in texts __makes use of phrasing and expression in oral reading Notes:

From *English language arts: A curriculum guide for the elementary level* (K-5) (p. 142) by Saskatchewan Learning, 2002b, Regina, SK: Author.

Note: please refer to *English Language Arts: A Curriculum Guide for the Elementary Level (K-5)*, pages 143 and 144 for sample checklists developed from this continuum. It is anticipated that teachers will adapt these checklists and develop additional assessment forms to gather appropriate data regarding their students' needs and strengths.

Sample Reading Continuum

Extending Phase (Grades 6-9)	**Specialized Phase (Grades 10-12)**
Student knows: • Reading is a means of learning and enjoyment. • Reading requires different strategies and rates depending on purpose and difficulty of the text.	Student knows: • Effective readers use a range of reading strategies before, during, and after interacting with texts to comprehend, interpret, evaluate, and appreciate what is said. • Reading a range of text —prose fiction and nonfiction, drama and poetry —extends one's understanding of self and of the world. • Different texts share our view of the world and shape us personally.
Student: __ reads for information, pleasure, and personal inte rest __ reads silently for extended periods __ reads narrative and expository texts aloud with correct pacing, intonation, and expressions __ uses key reading strategies with efficiency including: __ previewing __ making and confirming predictions __ makin g connections to prior knowledge and experiences __ attending to the pragmatic, textual, syntactic, semantic, and graphophonic cues __ monitori ng understanding and using self -correction strategies __ recognizing main ideas and relevant supporting details __ reflecting on and assessing meaning as understood __ adjusts reading rate according to purpose, familiarity with content, and difficulty __ discerns author's intent __ comprehends literal and inferential meaning __ synthesizes and summarizes ideas read f rom multiple passages or paragraphs __ compares (and contrasts) texts __ responds to comprehension questions with appropriate support __ reads and follows written directions __ interprets the denotative and connotative meanings of words __ identifies the l iteral and figurative meanings of words __ recognizes imagery, including words, phrases, and sentences that express sensory impression, feelings, and emotions __ identifies strengths and areas for improvement in reading	Student: __ reads to clarify and extend own thinking __ reads a wide range of texts to gain insights i nto personal and social worlds __ reads for pleasure and personal interest __ uses a range of reading strategies including: __ making connections __ finding meaning __ making and confirming predictions __ making and confirming inferences __ attending to th e pragmatic, textual, syntactic, semantic, and graphophonic cues found in texts __ reflecting and evaluating __ skims, scans, or reads closely according to purpose __ relates literary works and authors to universal themes and issues and to personal experi ences __ forms and defends personal judgements about a passage or text __ analyzes and evaluates the effectiveness of a text based on a variety of criteria __ supports important ideas and viewpoints through accurate and detailed reference to the text __ recognizes major forms and techniques in texts __ discerns social comments made in written works __ considers social and historical contexts for authors and their works __ analyzes the ways in which tone, mood, irony, point of view, and author's style achiev e specific purposes __ evaluates the accuracy and usefulness of information and ideas __ outlines, paraphrases, and summarizes ideas __ compares (and contrasts) texts __ draws conclusions and makes generalizations from texts __ gathers, evaluates, and synt hesizes data from a range of texts __ identifies strengths and areas for improvement in reading
Notes:	Notes:

From *English language arts: A curriculum guide for the middle level* (grades 6-9) draft (p. 124) by Saskatchewan Learning, 2003b, Regina, SK: Author.

3.1 Critical Elements in Reading Instruction

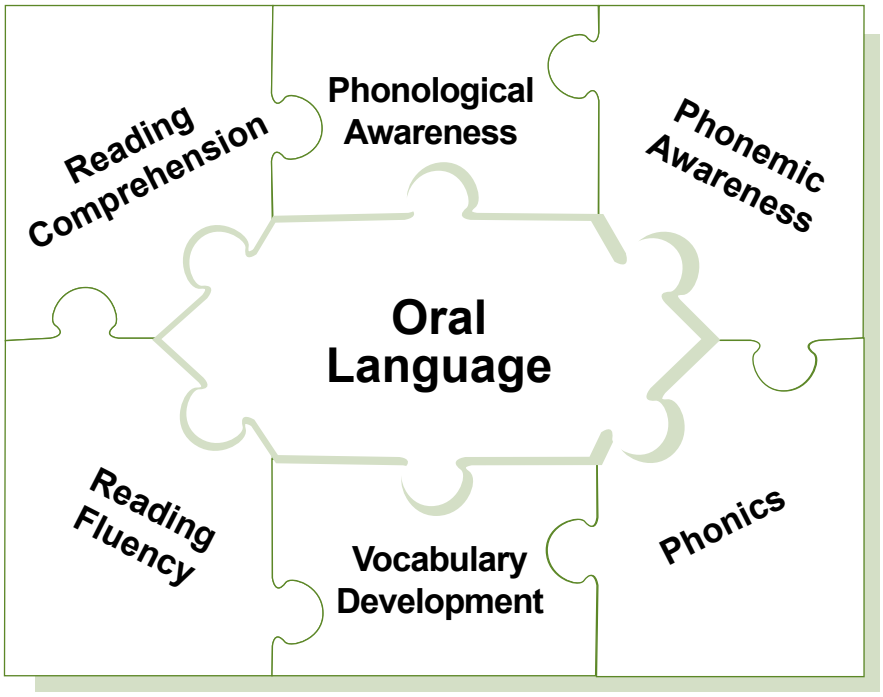
It is important for teachers to understand the critical elements of reading instruction. Students who have a reading disability will require intensive direct instruction. The critical elements of reading instruction include:

- strategies for reading comprehension;
- strategies for building meaning using the cues and conventions of language (including phonological awareness, phonemic awareness, phonics, vocabulary development, awareness of sentence structures, awareness of text structures and organizational patterns, and the pragmatics of text); and
- reading fluency.

These elements are not taught in isolation. Saskatchewan Learning English language arts curricula focus on teaching students through an integrated process to help them understand the relationship among the elements and how they relate to the ultimate goal of reading (see Figure 3.1). Expressive and receptive oral language provide the foundation for these elements. These critical elements must be explicitly and intensively taught if students are to become proficient readers and writers (Lyon, et al., 2001; Saskatchewan Learning, 2002b; Stanovich, 2000). Students who are at risk for reading failure require direct teaching through a systematic format.

Teachers -- not programs -- are the critical element in a student's success. The goal of reading is comprehension… it's not enough knowing what good readers can do or struggling readers can't do. We must also know what we believe about teaching, about learning, and about our role in both… We can make intelligent choices about the instruction that best suits the needs of our students. (Beers, 2003, p. 38)

Figure 3.1. Critical Elements in Reading Instruction



These elements are taught through an integrated, balanced approach and not in isolation.

Adapted from Bos & Vaugh (2002).

Extensive research has found that each of the components is an important element in teaching children to become proficient readers. A focus on any single element is not sufficient to comprise an effective reading program. All elements need to be taught systematically and explicitly through a balanced approach. Only when all the elements are taught in a balanced approach do students have the opportunity to become proficient readers who can gain knowledge from print.

> Holding tight to one methodology not only limits what a teacher can do but limits who can be successful. Believing that one single method can make (or not make) the difference in any given student's chance of success negates the importance of the teacher. In fact, …the teacher's skill in assessing students' abilities, effectively responding to students' needs and successfully analyzing and monitoring students' improvement makes the difference. This means, in short, we can't fix the reading problem by buying a particular program… (Beers, 2003, p. 36)

Critical Elements:

Reading Comprehension

Language Cues and Conventions

Phonological Awareness and the Graphophonic Cueing System

Phonics

Vocabulary Development and the Semantic Cueing System

Sentence Patterns and the Syntactical Cueing System

Text Forms, Features, and the Textual Cueing System

Author's Intent and the Pragmatic Cueing System

Reading Fluency

Reading Comprehension

Comprehension strategies are the centrepiece of the literacy curriculum (Pressley, 2000). Reading comprehension refers to the understanding of printed text. Proficient readers engage in an intentional problem-solving process to comprehend. This process has a before, during, and after component. Most readers who are explicitly taught reading comprehension skills and strategies are likely to learn, develop, and use them spontaneously (Collins Block, & Pressley, 2001).

Critical reading comprehension skills and strategies include the ability to:

- summarize;
- predict;
- develop questions;
- clarify;
- relate the content of the text to personal experience and knowledge (activate prior knowledge);
- construct mental representations of the text;
- monitor understanding of the text; and
- determine and connect important ideas to construct meaning (Collins Block, & Pressley, 2001; Moats, 1998).

Teachers need to explicitly describe these comprehension strategies and explain to students when and how they should be used. Teachers also need to model the strategies in action (e.g., by using Think Aloud) and use them with their students). They need to guide practice with a gradual release of responsibility so that students eventually make the

strategies their own. They also need to show students how the strategies can be applied to comprehend oral, print, and other media text.

> Please refer to Appendix A for strategies and resources for assessing and teaching reading comprehension.

Language Cues and Conventions

Language is the foundation for reading. Consequently, attention needs to be paid to the elements of the language cueing systems and the critical role they play in reading (see Figure 3.2). The cueing systems are the elements of oral and written language, including:

- sounds;
- the collection of words;
- word order patterns; and
- the larger units and patterns that form text.

These systems communicate and cue intended meaning. The conventions are the expected form or manner that these cues should take, including the:

- spelling of words;
- punctuation of sentences; and
- format of text such as paragraphs.

These essential features are delineated in the following sections.

Figure 3.2. Language Cueing Systems

Cueing Systems

Pragmatic cueing system
- builds on prior knowledge and experiences
- takes into consideration the social and cultural aspects of language (e.g., situation [context], audience, and purpose)

Textual cueing system
- helps us organize ideas in different text structures

Syntactic cueing system
- helps us organize words into meaningful sentence patterns (word order)

Semantic cueing system
- helps us consider word meanings (denotation and connotation) and functions

Graphophonic cueing system
- helps us attend to letter-sound relationships in words (their pronunciation and spelling)

From *English Language Arts: A Curriculum Guide for the Middle Level* (Grades 6-9) draft (pp. 3, 4), by Saskatchewan Learning, 2003b, Regina, SK: Author.

Phonemes are speech sounds. For example the word "though" has 6 letters (graphemes) and 2 sounds (phonemes), /th/ /o/.

Critical Elements:

Reading Comprehension

Language Cues and Conventions

Phonological Awareness and the Graphophonic Cueing System

Phonics

Vocabulary Development and the Semantic Cueing System

Sentence Patterns and the Syntactical Cueing System

Text Forms, Features, and the Textual Cueing System

Author's Intent and the Pragmatic Cueing System

Reading Fluency

Phonics is not the same as phonemic awareness skills. Phonics refers to the correspondence between letters (graphemes) and sounds (phonemes). For example, the phoneme /f/ can be represented by the grapheme(s) "f" or "ph".

Phonological Awareness and the Graphophonic Cueing System

Students develop an awareness of how language works and an understanding that oral language is made up of many parts. Communication is made up of sentences, sentences are made up of words, and words are comprised of syllables and sounds. Typically, emerging readers refine their awareness of the phonological components, and eventually understand how the graphophonic system works.

Initially, children play with words by creating new words and by exploring and creating language patterns. By singing songs, chanting rhymes, playing with words, and listening to adults read word-play books, children develop their phonemic awareness. Typically, there is a natural continuum to this skill development but for children with reading difficulties or disabilities this is not always the case. For some children, teachers have to provide small group instruction that is more explicit, systematic, intensive, and supportive than is usually provided in the classroom.

Beginning readers develop their concept of letters and the alphabet. The recognition and naming of letters is foundational to using the graphophonic cueing system. By noticing letters in environmental print, singing, and recognizing their own name, students begin to explore and understand this relationship. Students who do not develop this understanding will require explicit and direct instruction in phonics (Torgesen, Wagner, Rashotte, Alexander, & Conway, 1997). This begins the understanding of the connection of phonemes to letters.

Please refer to Appendix B for additional information, resources, and guidelines for assessing and teaching phonemic awareness.

Phonics

Phonics instruction is a means to an end; not the end in itself. Phonics is not meant to be the predominant component within a reading program; rather it is one of the essential features. It is critical that students see the relevance of phonics. Phonics instruction should begin with a foundational understanding of phonemic awareness and letters of the alphabet. The instruction should be linked to literature rather than to decontextualized activities with no relevance.

Most students eventually develop sound-letter relationships that help them decode and spell words. Effective phonics instruction focuses

students' attention on noticing the letter-sound patterns. By embedding phonics instruction in the total language arts program and by using teachable moments, teachers can assist most students to develop an understanding of the graphophonic cueing system.

> Please refer to Appendix C for additional information, resources, and recommendations for teaching phonics.

Vocabulary Development and the Semantic Cueing System

Beginning readers develop a word awareness. Students need to develop a store of words that they recognize automatically and understand. By repeated reading experiences (e.g., labels, key words, messages, word walls, lists) students develop recognition of most words they see, hear, and write.

If students are to become successful and fluent readers, it is important for them to understand the meaning of ideas and the words that describe those ideas. In combination with their understanding of the graphophonic cueing systems and conventions, children need to understand the semantic cueing system and conventions. During the reading process, students need to understand the words that allow them to comprehend what they are reading and the strategies that they need to figure out the meaning. Vocabulary cannot be left to chance; it has to be developed and extended and taught.

For some of our students, developing and expanding their vocabulary level is a complex process that requires multiple exposure to words and their meanings. They must be taught to use various word-learning strategies as they approach new words in their reading and in their environment. Effective vocabulary instruction occurs when:

- students are provided multiple exposure to words in a variety of contexts;
- words are taught in the context of a selection or unit;
- teachers help students activate prior knowledge when learning new words;
- relationships are drawn between new words and known words and concepts;
- students are taught to use context clues and reference resources such as dictionaries to enhance their word knowledge; and
- students are encouraged to interact with the words so they are able to process them deeply.

From *English Language Arts: A Curriculum Guide for the Elementary Level* (K-5) (pp. 242, 399-424) by Saskatchewan Learning, 2002b, Regina, SK: Author.

Students need to be taught oral and written vocabulary in order to enhance the process of reading (Moats, 1998). If the word is not in one's oral vocabulary, it will not be understood when it is encountered in print. Oral vocabulary is key to learning when making the transition from oral to written forms. Reading vocabulary is crucial to the comprehension of text.

> Please refer to Appendix D for strategies and resources for vocabulary development.

Critical Elements:

Reading Comprehension

Language Cues and Conventions

Phonological Awareness and the Graphophonic Cueing System

Phonics

Vocabulary Development and the Semantic Cueing System

Sentence Patterns and the Syntactical Cueing System

Text Forms, Features, and the Textual Cueing System

Author's Intent and the Pragmatic Cueing System

Reading Fluency

Sentence Patterns and the Syntactical Cueing System

In addition to vocabulary, students need to know that words are arranged in a certain order in sentences to give them meaning. As students mature, they understand the range of syntactical patterns and realize that punctuation contributes to meaning. Effective syntactical instruction occurs when:

- students are taught to use punctuation and to recognize its function–how it changes the meaning of sentences;
- students are taught to recognize how the order of words in a sentence determines meaning; and
- students practise using word order and punctuation in their own writing.

Text Forms, Features, and the Textual Cueing System

Students also have to recognize that words and sentences form different types of text, which are organized in particular structures or patterns. Typical textual cues and conventions for fiction, for example, include a setting (when and where), characters (who), and a series of events that focus on a problem followed by a solution. In contrast, nonfiction text presents ideas or events that are organized in a variety of ways including cause and effect, comparison and contrast, problem and solution, time order, or descriptive details. For students to be able to follow and understand text, they have to be able to recognize the organizational structures behind the text. Effective textual cueing instruction would focus on:

- introducing students to a variety of fiction and nonfiction texts even at a very early age; and
- discussing settings, characters, and events.

Author's Intent and the Pragmatic Cueing System

Effective readers also learn to notice the intent and the assumptions behind the words. Helping students understand who is communicating what to whom, how and why, allows students to understand text. They begin to read between the lines and to

understand why the author wrote a text. Students who understand the pragmatics can gradually learn to perceive the author's intent and point of view.

Learning the pragmatic cueing system also allows students to apply their skills to social settings. Their understanding of the various demands in different social settings with different audiences and purposes helps them make choices about how to address the people with whom they are communicating. Although the pragmatic cueing system is the last of the language systems to be learned (Hagemann, 2003), it is very important to reading and to success in life. Students who have a reading disability may not have reached this developmental milestone and thus may not be able to identify the pragmatic cues when communicating with others. This has potential to lead to misunderstandings and to being seen as not having good social skills.

These students spend so much time getting through the text that making an inference as they read is the last thing that happens, if it happens at all. (Beers, 2003, p. 169)

Effective pragmatic instruction focuses on:

- having students understand that the context influences how language is used and that their pragmatic expectations help them know what to expect in the text;
- determining students' assumptions as they read. What will the student bring to the text? What will the teacher have to provide as background to help the students understand the text?
- helping students read a variety of texts for a variety of purposes;
- helping students understand the context in which the story was written and how the language of the story was affected by the situation;
- reading dialogues in dialect to students;
- using Wilkinson's Framework (Wilkinson, Stratta, & Dudley, 1974). In this text, who communicates what to whom, how and why, and on what occasion?
- opportunities for students to shift their language to meet the demands of different texts;
- an opportunity for students to practise one-way communication, two-way communication, and group discussions; and
- teaching students to recognize formal and informal communication situations.

Reading Fluency

Reading fluency refers to the ability to quickly and accurately read text with appropriate expression. Fluent readers do not have to sound out or decode each word.

Automaticity allows readers to focus on comprehension. Increasing automaticity in word recognition is extremely important in the process of developing reading proficiency. Fluent readers have good vocabulary and good word identification skills; they make connections between the text and their prior knowledge.

Many educators believe that if they encourage students to read more, they will increase their fluency and achieve improved reading skills; however, there is not adequate evidence to support this belief. Accuracy is acquired word by word but it does not automatically mean fluency especially for a student with a reading disability.

Fluency can be targeted through:

- repeated readings;
- shared readings;
- echo readings;
- guided readings;
- self-identifying reading errors; and
- visualization.

Fluency can be taught through oral reading, and opportunities for feedback as the child reads (Shaywitz, 2003). Shaywitz does caution that the feedback must be constructive and oral reading must be a positive experience.

Please refer to Appendix D for strategies and resources for vocabulary development.

We have learned that for 90 to 95 percent of poor readers, prevention and early intervention provided by well-trained teachers can increase reading skills to average reading levels (Tankersley, 2003). These intervention programs must combine instruction in:

- reading comprehension strategies;
- the language cueing systems including phonemic awareness, phonics, syntax, text, and pragmatics; and
- fluency development.

However, there is also evidence to suggest that if we delay intervention until nine years of age, approximately 75 percent of the children continue to have difficulties learning to read throughout high school (Tankersley, 1998).

Successful intervention requires that teachers understand the reading processes and instruction, think diagnostically, and use this information on an ongoing basis to inform instruction. Struggling readers need multi-level, flexible, small-group instruction balanced with whole-class instruction in which the teacher models and explicitly teaches reading strategies. One-size instruction does not fit all children.

Saskatchewan English language arts curricula and *Early Literacy: A Resource for Teachers* (Saskatchewan Learning, 2000) provide assessment tools and instructional guidelines, strategies, and activities for all areas of literacy development. This includes listening, speaking, reading, writing, viewing, and representing. Supplementary information on assessment, instructional strategies, and activities are included in Appendices A–G.

4 Written Expression Instruction

4. Written Expression Instruction

Writing is the most complex form of language development. It requires generating thoughts and ideas, and converting them into written words that can be formulated into coherent sentences that include proper mechanics (spelling, punctuation, and capitalization). The sentences must be interrelated and connected in order to convey meaning.

Students who have reading disabilities have great difficulties with the writing process. For most of these students, their writing difficulties are due to problems with lower level transcription skills (e.g., spelling, handwriting) rather than higher level composing skills (e.g., generation of ideas, editing, revising, organization) (Berninger, Abbott, Whitaker, Sylvester, & Nolen, 1995). When students with reading disabilities have difficulties with the higher level skills, it is usually because the lower level transcription skills are not automatized. Also, students who struggle with transcription skills are devoting much time and energy to this lower level skill, using up their attentional resources that could be directed at the more complex tasks of composing and revising (McCutcheon, 1988). The following section will briefly describe the nature of spelling, handwriting, and composing difficulties experienced by students with reading disabilities and describe areas on which to focus instruction.

4.1 Spelling

As children learn to read, they are learning to spell at the same time. When children have difficulty learning to decode (read) they also have difficulty learning to encode (spell). Moats (1998) reported that spelling is the most difficult literacy skill to develop in children with a reading disability.

According to Lennox and Siegel (1998), phonological and orthographic skills interact in a reciprocal manner through the development of learning how to spell. That is, children rely on both the sound system (phonology) of a language as well as spelling patterns (orthography) to spell words. The sound-to-letter (phoneme-to-grapheme) correspondence rules are an effective and powerful means to spelling "regular" words (Leong, 1998). For "irregular" words (e.g., tongue, ocean, yacht), knowledge of spelling patterns and specific word memory are important. Explicit training in phonological skills and spelling pattern structures needs to be carried out (Leong, 1998).

It is important to teach children how to spell. According to Kosnik and Duplak (1997), spelling must be interconnected with all aspects of language learning and have a distinct place in the language arts program. A strong background in phonemic awareness (the ability to focus on and manipulate sounds in spoken words) and phonics skills (the ability to make relationships between the letters of written language and the sounds of spoken language) is definitely necessary to assist students in spelling. The phonics skills students use to decode words will also help them to encode or spell words.

In fact, research has shown that spelling instruction can be used to teach or enhance beginning reading (Ehri & Wilce, 1987) because spelling provides students with a concrete example of how letters can represent the phonemes in words. The production of correct sound-letter correspondences in spelling engages phonemic processing at the highest level. Through writing, students learn to see the patterns in phonemic content rather than as arbitrary sequences of letters. Practice in using the alphabetic strategy to spell by writing helps students transfer this strategy to reading (Treiman, 1998). Due to the close relationship between reading and spelling, effective spelling instruction integrates key skills across both reading and writing so that the development of these skills occurs in a reciprocal and facilitative manner (Ehri, 2000).

Spelling Instruction

The primary goal of spelling instruction should be to instill the logic and organization of the spelling system (Moats, 1998) and to help students become proficient and fluent in spelling words (Graham, Harris, MacArthur, & Schwartz, 1998). Ultimately the aim of spelling instruction should be to assist students to become competent, independent spellers (Kosnik & Duplak, 1997) thereby freeing up attentional resources for higher level written expression skills (e.g., composing, ideas generation, and organization).

The spelling characteristics of older students who are poor spellers tend to be similar to those of younger non-learning disabled students (Scott, 2000). Table 4.1 provides an overview of the developmental stages in spelling along with suggestions for planning interventions at each stage. Table 4.2 provides a developmental inventory to assist in analyzing the student's spelling.

Treiman (1997) reported that what distinguishes spellers with reading disabilities is that they continue to have difficulties with some very specific phonemic processing skills. For example, they have persistent difficulties spelling words that contain liquids (e.g., /l/ and /r/) and nasals (e.g., /m/, /n/), particularly following vowels

and in any non-initial position (e.g., WROK/work, KID/kind, SEFE/self). The assistance of a speech-language pathologist would be invaluable in helping to analyze the nature of spelling difficulties of the older student with a reading disability and to plan programs accordingly.

When planning instructional interventions for the poor speller, it is important to remember that students with poor spelling skills require more time and more intensive amounts of study to learn spellings (Scott, 2000). It will be important then, to either reduce the number of words to be learned per day or week compared to good spellers, or present daily subsets of a smaller number of words (Fulk & Stormont-Spurgin, 1995; Graham & Voth, 1990).

Students who are poor spellers also need to be afforded many opportunities to practise writing words. According to Moats (1995), children with reading disabilities need as many as 40 opportunities to write a word correctly before they remember it. Moats further recommends that a given lesson should include 80 percent old information and 20 percent new information so that words or spelling patterns are revisited and restudied and a criterion of mastery is met over a period of time. This distributed practice in spelling is important given the commonly observed tendency of poor spellers to forget a word that they previously spelled correctly, particularly if they are using this word in text-level writing.

Ultimately, students who are poor spellers, even older students, need basic practice and intervention in phonological awareness and the alphabetic principle as well as with morphology and meaning. Spelling instruction typically consists of memorizing words, word analysis, and sorting activities within the context of balanced, authentic reading and writing activities (Scott, 2000).

Table 4.1. Using Student's Writing to Plan Spelling Instruction

Stage (Gentry, 1987)	What Student Knows	What Student is Ready to Study
Pre-conventional/ Pre-phonetic - pre-school, ages 2-5 years (e.g., bst).	• knows about stories and what writing is but lacks concepts of words or relationships between sounds and letters; • makes letter-like shapes or actual letters and numbers; • combines drawing with writing; and • may write name.	Play "writing", scribbling, painting, drawing, colouring, cutting, constructing; dictating stories about their pictures; practising writing their names; extensive exposure to print.
Emergent - kindergarten to beginning of first grade, ages 5-6 years (e.g., mi = my or m = my).	• knows letter names and uses some sound-symbol correlations; • knows words are made of letters, but letter-to-sound consonant correspondences are lacking or incomplete; • uses words of one to three letters; • uses initial consonants in some words; • may omit vowels or very few vowels are used; • shows some sense of left to right; and • uses letter names as sound cues.	Studying alphabet if needed and beginning consonant sounds; making class chart stories; discussing key vocabulary; playing with language rhymes; working with word walls and learning simple sight vocabulary; reading environmental labels and pictures; creating big books and picture dictionaries; dictating stories and experience charts.
Early - grades 1-2 (e.g., "Mi cat caem hom today.")	• uses vowels in each syllable; • uses sight vocabulary; • short vowels are used but are generally inaccurate; • some blends and digraphs are in place; • knows correct spelling of many high frequency words and uses familiar spelling patterns; • intersperses conventional spelling with temporary spelling; and • uses conventional spacing between words.	Categorizing words by common patterns; developing word banks and beginning a personal dictionary. Studying one word family at a time and then comparing word families with the same vowel; discussing spelling patterns and sounds heard in words; using word banks. Writing regularly; comparing word families with mixed vowels including words with blends and digraphs.
Conventional/Fluent - grades 2-4, ages 7-9 years (e.g., "My cat came home today.")	• spells most words needed correctly; • has mastered root words, past tense, and short vowels; • still struggles with consonant doubling, letter position (e.g., silent e, controlled vowels, and word affixes); and • has growing knowledge of word meanings and complicated vowel patterns.	Explicit instruction in classifying visual patterns; using word meanings and derivations (e.g., nature, natural, naturalist); using memory strategies for difficult words and developing strategies for learning new words; developing personal word lists; proofreading own writing. Writing and reading a variety of texts; doing word study (foreign prefixes, roots, suffixes); using syllabication; extending proofreading strategies; developing memory strategies for difficult words (e.g., look, cover, write, and check); playing word games (e.g., crosswords, word searches, and riddles).
Morphemic and Syntactic - grades 5-8, ages 10-13 years.	• spells multisyllabic words and uses morphological and syntactical knowledge; • recognizes derivational relationships; and • is better at doubling consonants, spelling alternative forms of words, and word endings.	Building a personal spelling vocabulary; revising their writing; building a repertoire of spelling strategies. Writing, reading, word study, word games; using content-area words; identifying own problem words; proofreading own and other's writing; using a variety of resources to assist in spelling; studying unusual spellings.

Table 4.2. Spelling Inventory

Developmental Spelling Inventory

Directions: Read the following 10 words. Use each in a sentence. Ask the student to write down each word.

1. monster
2. united
3. dress
4. bottom
5. hiked
6. human
7. eagle
8. closed
9. bumped
10. typed

Key: Analyze the child's spelling.

1. Find the error type in the scoring chart below that best matches the student's spelling. This does not have to be exact.
2. Write an abbreviation of the developmental level beside each word.
3. Look for the abbreviation that occurs most frequently to determine the child's developmental level.

Scoring Chart

Pre-communicative	Emergent/ Semi-phonetic	Early Phonetic	Early Transitional	Conventional
1. random	Mtr	monstr	monstur	monster
2. random	U	untid	younighted	united
3. random	Jrs	jras	dres	dress
4. random	Bt	bodm	bottum	bottom
5. random	H	hikt	hicked	hiked
6. random	Um	humm	humun	human
7. random	El	egl	egul	eagle
8. random	Kd	klosd	closed	closed
9. random	B	bopt	bumped	bumped
10. random	Tp	tip	tipe	typed

(Gentry, 1985, p.50)

From *English Language Arts: A Curriculum Guide for the Elementary Level* (K-5) (p.273) by Saskatchewan Learning, 2002, Regina, SK: Author

Please refer to Appendix F for recommendations and activities for teaching spelling.

Word Analysis and Word Sorting with Poor Spellers

As well as learning and memorizing spelling lists, it is important for students to be involved in word analysis activities. Usually, these activities focus on sorting words according to various grapheme-phoneme (letter-sound) patterns (e.g., "-ack", "-est" endings). By learning various word patterns, it is anticipated that students will generalize their knowledge of these patterns in learning new words.

There are numerous ways to teach these skills in motivating ways to students (e.g., word hunts, word sorts). It is also helpful to take words from the student's personal word bank (words the student can already spell). By focusing on words that the student already knows, it is easier to draw attention to patterns and similarities with words yet to be learned. The following considerations are helpful in choosing words for a spelling list:

- Use known and unknown word patterns.
- Use words that feature internal portions of words. Make these explicit by colour-coding them (e.g., *in, form, inform, form*ation, *inform*ation).
- Use words that contain liquids, nasals, and consonant clusters in non-initial positions (e.g., pa*st*, mi*n*d, bo*ld*, mi*nd*ful) to teach specific phonemic skills with which poor spellers have persistent difficulty.
- Use words that have or do not have a target spelling pattern to draw the students' attention to shared patterns as well as to highlight unique patterns.

Adapted from Scott (2000).

The following strategies encourage strategic spelling behaviour in poor spellers:

- finding the specific letter or portion of the word where the error occurs (can use a highlighting pen to highlight possible errors);
- generating alternative spellings;
- using common word analogies to create alternative spellings;
- using self-questioning and self-monitoring strategies;
- using peer editors; and
- using more than one error detection strategy (e.g., reading aloud paired with spell checkers).

Adapted from Scott (2000).

4.2 Handwriting

Given the importance of lower level transcription skills to the writing process, learning to write letters efficiently is not a trivial task for young children (Edwards, 2003). Similar to spelling, students with reading disabilities who may have difficulty with the visual-motor aspects of forming letters during text production have little cognitive resources left to devote to the higher level compositional aspects of written expression (Graham, Harris, & Fink, 2000). For these students, the actual forming of letters in connected text is a time-consuming and laborious process. The assistance of an occupational therapist can be valuable in helping to develop instructional interventions and adaptations for these students.

Research has indicated that the difficulties of many students with handwriting problems stem not necessarily from the motor skills required to produce letters, but from students' difficulties retrieving the correct shapes of letters in memory (Berninger & Graham, 1998). Students with handwriting difficulties may also benefit from the following additional strategies:

- The names of letters may help serve as cues for retrieving the letter during the motor process of writing. For example, the student says the name of the letter (e.g., "The name of the letter is 'a'"), matches the letter name to its appropriate letter form (e.g., "The letter looks like…"), and then writes the letter "a".
- Have students write the letter that comes after a set of five designated letters by playing an alphabet retrieval game.
- Combine instruction on lower level skills such as handwriting and spelling with work on higher level composing skills in a single instructional session.
- Provide students with opportunities to write letters from memory.
- Provide students with opportunities to copy modelled lowercase letters that are marked with arrow cues that signify correct direction for their production.

Adapted from Berninger, Vaughan, Abbott, Abbott, Rogar, Brooks, et al. (1997); Brooks, Vaughan, & Berninger (1999).

4.3 Composing Skills

The ultimate goal of writing is for students to express their thoughts and ideas in a coherent, meaningful, and comprehensible way. For students with reading disabilities, this goal may present a significant challenge due to problems with lower level handwriting and spelling skills. While it is important to develop these lower level transcription skills, instruction and intervention that integrates both transcription and composition skills is important for the development of written expression skills (Berninger, 1999). Students who have a reading disability often have great difficulty with the compositional aspects of writing because lower level transcription skills are not automatized and thus little cognitive energy is left to devote to higher level text generation activities. Students may struggle from the very beginning stage of thinking about a topic to editing the final draft. The difficulties associated with the compositional or higher level aspects of written expression are examined in detail in Table 4.3.

The English language arts curriculum guides provide details of the writing process along with specific objectives, assessment tools, and teaching activities. It is important that teachers familiarize themselves with the writing strand for the particular grades they teach.

Please refer to Appendix G for strategies and resources for assessing and teaching written expression.

Table 4.3. Written Expression and Associated Difficulties

Written Expression	Associated Areas of Difficulty
Handwriting	• forming letters; • writing legibly; • interspersing upper and lower case letters throughout writing; • gripping a pencil or pen and applying correct pressure; and • spacing letters and sentences.
Pre-Writing Stage	• discussing topics; • thinking of ideas to write about; • planning and organizing ideas; • brainstorming; • considering the audience or purpose; • researching information; and • completing written assignments on time.
Drafting Stage	• getting thoughts down on paper; • developing sentences; • writing compound/complex sentences; • organizing their writing; and • writing coherently.
Revising Stage	• proofing their product; • editing for content; • rearranging information; and • spelling, punctuation, and capitalization.
Sharing Stage	• sharing or publishing final written product.

5 Assessment and Intervention

5.1 Assessment and Program Planning

5. Assessment and Intervention

It is important to have plans in place throughout the school years to ensure that students with learning disabilities are provided with assessment, diagnosis, and appropriate educational supports as needed. This chapter outlines an assessment and program planning process that begins when the classroom teacher identifies concerns regarding the reading progress of a student. It includes possible interventions for the classroom teacher as well as suggestions for further assessment and collaborative planning.

Early warning signs of a reading disability may include difficulty with:
- *language skills;*
- *remembering the alphabet and numbers;*
- *remembering the days of the week;*
- *understanding and remembering letter/sound connections; and*
- *coordination.*

There are several early warning signs a teacher may notice with students who may be at risk for reading failure. These are:

- delayed receptive and expressive language skills;
- poor phonological skills;
- difficulty learning phonics; and
- not remembering basic rote information.

It is important to keep in mind that early warning signs do not necessarily mean that the student has a learning disability. They are characteristics that suggest further investigation and the need for early intervention.

Although early identification and intervention for young children with a reading disability leads to better school adjustment and performance, recognizing reading difficulties throughout a child's school years is important. In the **early elementary years** warning signs may include difficulty with:

- recognizing and naming letters;
- developing a store of sight words;
- demonstrating an understanding of sound-letter relationships; and
- coordination.

From Kindergarten to Grade Three children spend much of their time learning to read accurately and smoothly. If they have not acquired adequate reading skills by the time they are in Grade Four, they may have a difficult time with the regular curriculum without adaptations. Seventy-five percent of children with reading disabilities in Grade Three may continue to have difficulties learning to read throughout high school and their adult life (Lyon, 1997).

In the **middle and secondary years**, some warning signs of a reading disability may include difficulty with:

- vocabulary development;
- word order, sentence patterns, and punctuation;
- idea order and text patterns; and/or
- fluency in reading.

Thus, it is important to provide direct, intense, and explicit instruction as early as possible and throughout the school years for students who are having difficulty learning to read. It is also important to have an assessment framework in place for the classroom teacher to refer to when there is a concern about a student's reading progress.

5.1 Assessment and Program Planning

The Framework for Assessment and Program Planning (see Figure 5.1) describes a process for intervening with students who are having significant difficulties learning to read. Additional information is provided in Tables 5.1, 5.2, and 5.3. It is critical that students with reading difficulties and disabilities are identified early so that the appropriate intervention strategies may be implemented. Students who have a reading disability require explicit and intensive instruction that is ongoing.

Classroom teachers continually assess students' learning in order to inform instruction. The English language arts curricula and *Early Literacy* documents developed by Saskatchewan Learning provide in-depth goals and procedures for instruction and evaluation. Teachers are encouraged to refer to these documents for guidance.

> Appendices A–G provide additional tools to support the assessment process.

When teachers have initial concerns about a student's lack of progress, there are many things they can do to support the student. It is important to intervene as soon as the teacher recognizes that a student is falling behind. Table 5.1 outlines suggested guidelines for working together with parents to identify concerns and to develop a classroom intervention plan. In many situations, these interventions may be effective and no further input may be required.

When a reading disability is suspected, writing difficulties are often observed as well. Tables 5.4 and 5.5 provide suggestions to assist teachers in identifying the source of reading and writing difficulties as well as interventions and supports. Teachers are encouraged to refer to the English language arts curricula as well as to Table 5.4 and 5.5 when they first identify a reading and/or writing concern.

Figure 5.1. Framework for Assessment and Program Planning

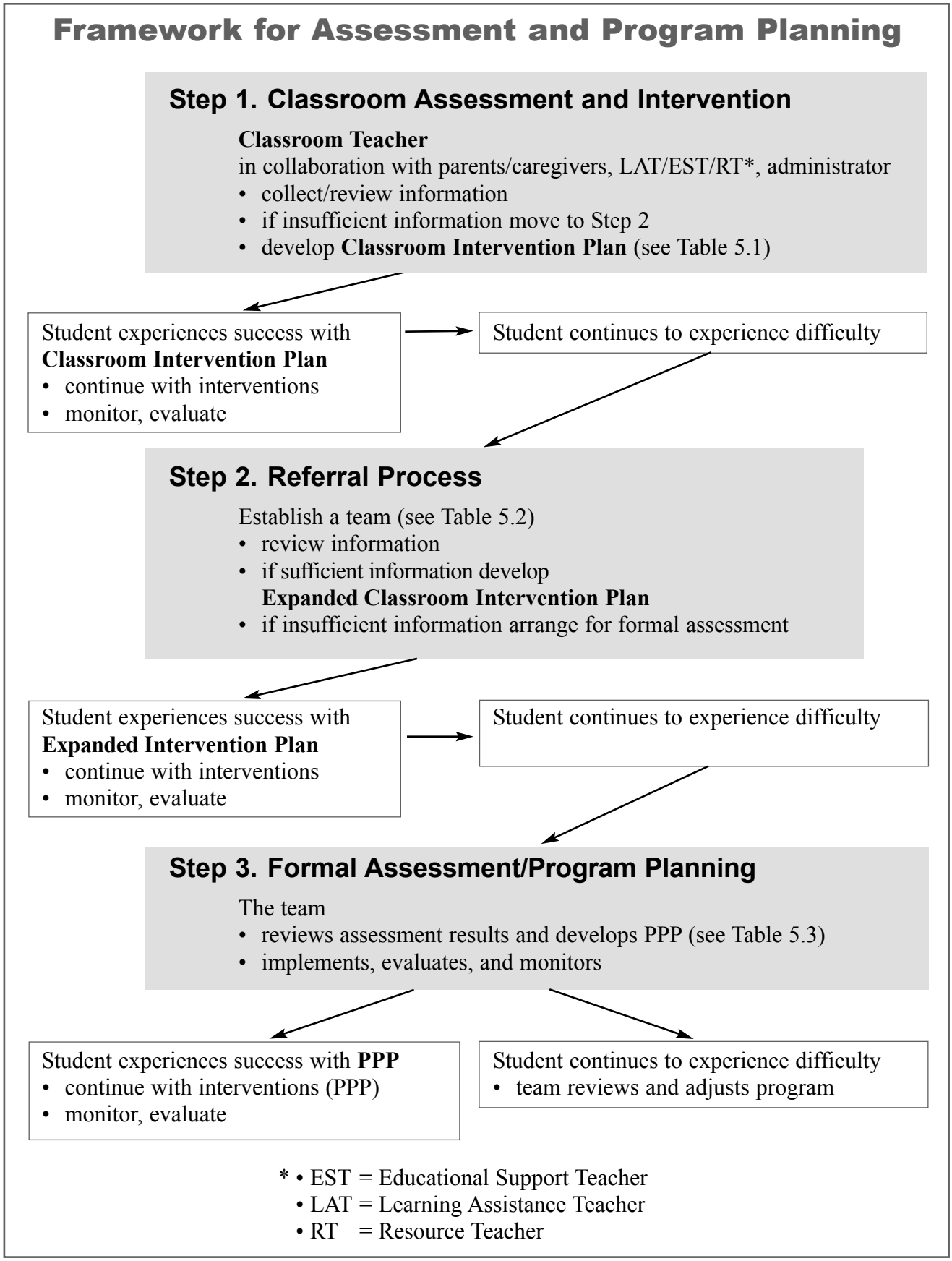


Table 5.1. Step One: Classroom Assessment and Intervention

Teacher has a concern about a student's academic progress.	Classroom teacher with possible support of special educator and/or administrator: ❑ discusses concerns with parents/guardians; ❑ ensures vision, hearing, and medical assessments are up to date; ❑ reviews cumulative record; ❑ collects data through informal assessments; ❑ documents observations; ❑ identifies areas of strengths and difficulties; ■ **If there is sufficient information, develops Classroom Intervention Plan**; ❑ implements intervention strategies; ❑ documents interventions; and ❑ monitors progress. ■ **If further information is needed moves to Step 2** ❑ **Evaluates if Classroom Intervention Plan is working:** ❑ **yes** – continues to monitor progress; or ❑ **no** – moves to step 2.

Table 5.2. Step Two: Expanded Intervention Plan or Referral Process

Team members include those who are directly involved with the student or who may be able to contribute to the intervention plan. Core team members include: parents/guardians, classroom teacher, student (if appropriate), learning assistance teacher, educational assistant. Extended team members may include: previous teacher(s), administrator, speech-language pathologist, psychologist, and occupational therapist.	Team meeting is held to: ❑ discuss strengths, issues, and concerns; ❑ review student's history; ❑ review classroom-based assessment; ❑ review interventions to date; and ❑ define learning difficulties. ■ **If there is sufficient information develop Expanded Intervention plan:** ❑ brainstorm interventions; ❑ select interventions; ❑ plan implementation; ❑ plan monitoring and follow-up; and ❑ if the student is working on learning objectives that differ from the regular curriculum and/or will receive additional supports, develop Personal Program Plan (PPP). ■ **If further information is needed move to Step 3.** ❑ **Evaluate if Expanded Intervention Plan is working:** ❑ **yes** – continue with plan and monitor; or ❑ **no** – refer student for formal assessment, move to Step 3.

Table 5.3. Step Three: Formal Assessment and Program Planning

Team members meet to identify personnel who will assess/review assessment data when completed and to plan interventions (PPP). This may involve more than one meeting. Team members include: parents/guardians, classroom teacher, student (if appropriate), and learning assistance teacher. It may also include: educational assistant, administrator, speech-language pathologist, psychologist, and occupational therapist.	❑ identify what information is needed; ❑ identify personnel (who will conduct the formal assessments); ❑ obtain parental permission for formal assessment; ❑ discuss results and recommendations based on formal assessment; ■ **Develop PPP;** ❑ plan implementation of recommendations; ❑ implement PPP; ❑ monitor progress; ❑ evaluate at regular intervals; ❑ adjust as appropriate; ❑ conduct annual review; and ❑ provide recommendations for following year. ■ **Team reviews and adjusts PPP.**

Table 5.4. Developing the Classroom Reading Intervention Plan

Reading Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)
Language: Communication and Information Processing.	Student has difficulty: expressing him/herself orally and/or demonstrating understanding of spoken language and/or written text.	**Student is able to:** • name things in the environment; • use oral language to bring meaning to what he/she sees, hears, observes, or reads; • approximate adult language usage; • use simple phrases to make requests and to inform; • sustain social verbal interactions; • give simple descriptions; • confidently share experiences and feelings using oral language; • participate in language games; • repeat short sentences accurately; • stay on topic when speaking; • use language to convey meaning; • answer questions in complete sentences; • retell stories and recite rhymes, sing songs; • use vocabulary appropriate for his/her age; • use correct pronunciation (for his/her age); • participate in group discussions; • engage in extended conversations; • grasp explanations; • comprehend word problems; • demonstrate good reading comprehension; • give multi-step directions and instructions in correct sequence; • participate effectively in group discussions; • understand how language varies according to audience, purpose, and situation; and • practise "Before", "During", and "After" speaking strategies: See ELA 10/20/30 (p. 62).	**Create a student language profile** **Listen** to your students talk and keep anecdotal records of how the student processes information when engaged in communication. **Early Literacy: A Resource for Teachers** Sample Checklist for Observing Children's Social Communication (p.25). Sample Form for Recording Children's Language Use and Communication Behaviours (p.27). Repeat my Sentence (p.28). **English Language Arts: K-5** Developing Phase Speaking Checklist (p.124-125). Sample Repeat my Sentence (p.127). Sample Oral Language Assessment (p.128). Sample Story Telling Checklist (p.134). Sample Role Playing Checklist (p.135). **English Language Arts: 6-9:** Sample Vocabulary Log (p.168). Sample Conversation Checklist (p.70). **English Language Arts: 10, 20, 30:** Sample Conversation Checklist (p.70). Contrasting Effective and Ineffective Listening Habits (p.105). Sample Self-assessment for Listening: Form One (p.112). Sample Listening Behaviour Checklist (p.114). Sample Listening Rubic for Small Group Discussion (p.115).	• Engage children in imaginative play using language. • Teach songs, chants, rhymes, and poems. • Engage students in language experience stories. • Sharing time and daily news. • Felt board stories. • Puppets and dramatization of well known stories. • Engage children in conversations about topics of interest to them. • Read aloud to the students and have them make predictions, describe characters, sequence events, and talk about feelings. • Have students retell stories. • Have students give and restate directions. • Role play for social problem solving. • Explicitly teach vocabulary (this includes math) and concepts in context and attach them to prior learning. • Emphasize relevant features when teaching new concepts. • Present visual organizers when presenting new concepts (especially abstract, difficult concepts). • Provide organizers that provide a visual display of relationships among concepts. • Request students to paraphrase to check for understanding. • Write key words on the board or word wall. • Provide opportunities for students to actively think about new information. • Present new information in a user friendly way for students who have difficulty understanding and processing spoken language–pair auditory with visual. • Demonstrate how to take notes (what are the key points) when introducing new vocabulary concepts. • Demonstrate strategies for memory when introducing new words. • Teach students strategies to solve word problems. • Teach category terms. • Slow down the classroom pace and give students plenty of time to respond. • Use talking circles, guided discussions, and group talk to engage students.

Table 5.4. Developing the Classroom Reading Intervention Plan – Continued

Reading Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)
Phonological Awareness	Student is unaware of the sound structure of words. Student is not able to rhyme words, blend sounds, and segment words into sounds.	**Student is able to:** • identify if two words rhyme; • generate a rhyme for a simple word; • easily be taught how to rhyme; • isolate and pronounce the beginning sound in a word; • blend the sounds in two phoneme words (e.g., boy (/b/-oi/); • isolate and pronounce all the sounds in two and three phoneme words; • blend the sounds in four phoneme words containing initial blends; and • blend the sounds in four and five phoneme words containing initial and final blends.	**Create a student profile for Phonological Awareness that includes:** • sound comparison–identifying words that begin or end with the same sounds or generating words that begin or end with the same sounds. • phoneme segmentation–counting, pronouncing, deleting, adding, or reversing individual phonemes in words; • phoneme blending–blending a series of phonemes in isolation to form a word. **Early Literacy: A Resource for Teachers:** Sample Checklist/Form: Phonemic Awareness (p.77) **Rosner Test of Auditory Analysis.** **Yopp-Singer Test of Phoneme Segmentation.** **English Language Arts 10/20/30:** Word and Phrase Awareness and Sound Awareness (p.39, 40, 41).	• Read “big” books with identifiable spaces between words. • Identify environmental sounds–sound walk. • Identify the sounds in their names. • Identify individual sounds within words. • Rhyming activities. • Beginning and ending sound analysis. • Concrete activities to segment words into sounds–use coloured blocks, tiles, bits of coloured felt. • Colour code parts of words to show common phonetic patterns. • Change words by changing initial or final sounds. • Blend individual sounds into words–what word do these sounds make? • Present word families in which the vowels represent the same sound. • Provide enough repetition to ensure concepts are being stored in long-term memory. • Embed phonemic awareness activities into spelling and writing lessons. • Teach students to think about the decoding process when reading to expand their knowledge of phonemes. **Refer to: Early Literacy: A Resource for Teachers.** **Refer to Appendix B.**
Graphophonic Awareness	Student has difficulty naming letters and attaching the appropriate sounds to letters.	**Student is able to:** • recognize words are made up of letters; • recognize writing is talk written down; • begin to recognize print in the environment (e.g., “Stop” sign); • name the letters of the alphabet accurately; • attach the appropriate sound to a letter; • write own names correctly; • write high frequency words correctly; • demonstrate awareness and use of punctuation;	**Early Literacy: A Resource for Teachers** Sample Checklist/Form: Sample Multi-use diagnostic Assessment Form for Letter-sound Knowledge (p.78). **English Language Arts K-5** Sample Emerging/Early Developing Phase Writing Checklist and Rating Scale (p.164). Sample Letter Recognition and Letter-sound Assessment (p.156). Sample Graphophonic Checklist (p.157).	• Consistently use terms “letter”, “word”, and “sentence”. • Model writing of letters. • Direct, explicit instruction of letter–sound correspondence. • Model writing notes and stories about shared experiences. • Build writings on student interest. **Refer to Chapter 4- Written Expression Instruction.** **Refer to Appendix B.** **Refer to Chapter 4 – Written Expression Instruction.**

Table 5.4. Developing the Classroom Reading Intervention Plan – Continued

Reading Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)
Phonics	Student cannot decode words using letter-sound patterns. Student does not have a foundational understanding of the letters of the alphabet.	**Student is able to :** • understand sound-letter relationships to decode words; • use visual memory for high frequency words; • demonstrate phonological awareness; • demonstrate graphophonic awareness.	**Create a student profile that includes:** – oral language – phonological awareness – graphophonic awareness – sound-letter knowledge – high frequency word recognition – decoding skills – prefix and suffix recognition. **Early Literacy: A** Resource for Teachers Assessment of Bank of Sight Words and Spelling Patterns (p.114). **English Language Arts K-5** Sample Miscue Summary/Analysis (p. 150). Sample Sight Word Assessment (p.158).	• Embed phonics instruction into the total program. • Teach students the common sounds for vowel patterns. • Use decodable text that allows students to practise their decoding skills. • Provide instruction of and practice with high frequency words. • Provide text that requires decoding and identification of high frequency words. • Play “word detective” games. • Teach students self-talk strategies when encountering new words. Do I know any other words that look like this? Do I know any other words that sound like this? • Provide direct instruction of suffixes prefixes and root words. • Word wall. **Refer to Appendices C & F.** **Refer to ELA K-5.** **Refer to ELA 6-9.** **Refer to Early Literacy: A Resource for Teachers.**
Vocabulary (lexical and semantic cues and conventions).	Student cannot bring meaning to words or text he/she has read. Student has not developed a store of words that he/she recognizes and understands automatically.	**Student is able to:** • learn and recall words; • learn sight words; • learn word attack strategies; • participate in word building activities; • recognize words he/she sees, hears, and writes; • demonstrate visual memory; • use strategies to bring meaning to new words; • bring meaning to new words he/she sees, hears, and writes; • continue to expand his/her vocabulary in speech and writing; • show interest in increasingly complex text.	**Create a student profile with examples of “use of words”** • Examine student-made maps and webs for evidence of understanding. • Present incomplete graphic organizers and have students complete them as evidence of word knowledge. • Examine and record vocabulary used by students during a brainstorming activity. • Miscue analysis/running records. • Quickwriting. **Early Literacy: A Resource for Teachers:** Sample checklist/Form: Sample Form for Recording Children’s Language Use and Communication Behaviors (p.27). **English Language Arts K-5** Oral Language Assessment (p.128). Sharing Time Assessment (p.129). **English Language Arts 6-9** Sample Vocabulary Log (p.168) Developmental Stages of Speaking (p.80) **English Language Arts: 10/20/30** (pp.149, 150)	• Teach students to play with words–combine parts of words to form new words • Multiple exposure to words and repeated reading experiences (messages, word walls, lists). • Multiple exposure to words in a variety of contexts. • Teach oral and written vocabulary and link them to prior learnings. • Teach strategies on how to approach new words. • Incorporate sensory modalities. • Teach words in the context of a selection or unit. • Draw relationships between new and known words. • Teach students how to use contextual clues to gain meaning. • Teach students how to use reference resources such as dictionaries. • Teach students to use graphic organizers to make word meanings and relationships concrete. • Teach students mnemonic strategies to personalize meanings. • Build a word-rich classroom environment to build word awareness. • Use crossword puzzles, word games, sharing of new words–word of the day or mystery word. • Have students select new words and word meanings to use in oral reports or writings. • Never assume a student has an understanding of new vocabulary–check for comprehension. • Teach students a context-clue attack system (ELA 10/20/30 p.150). • Provide students with context and definitions of vocabulary words. • Help students develop analogies for new vocabulary words. **Refer to Appendix D.**

Table 5.4. Developing the Classroom Reading Intervention Plan – Continued

Reading Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)
Comprehension	Student does not understand what he/she has read.	**Student is able to:** • read from the beginning to end of the text; • set a goal for reading the text; • anticipate what will be in the text based on prior knowledge about the topic of the text; • monitor what he/she has read –make decisions to either slow up, reread or skip sections of text; • reflect on what he/she has read–think about ideas and use self-talk; • create mental images while reading; • seek clarification if he/she does not understand; • use the cues and conventions of texts (pragmatic, textual, syntactical, semantic, graphophonic, and others); • use key reading strategies (e.g., predict and confirm predictions, connect, identify main idea and supporting details, make and confirm inferences, use fix up strategies).	**Early Literacy: A Resource for Teachers:** Sample Checklist/Form: Sample Checklist for Assessing Retelling in the Emerging Phase (p.52). **English Language Arts: 6-9** Sample Observation Checklist: Metacognitive Strategies (p.193). Sample Reading Strategies Questionnaire (p.189). **English Language Arts: 10/20/30** Sample Self-assessment for Reading (p.165). Graded reading passages with comprehension questions.	• Model a think aloud strategy–Read a story to students, pause and predict what the text may be about and summarize what has been read or use it to link key words in the text to prior learning. • Model imagery strategy–What do I visualize as I read this passage? Assist students to create a mental image from the words they read. • Model predicting–What will happen next? • Guided reading using the above strategies. • Teach self-monitoring strategies–If I don't understand a word what can I do? Do I need to reread this section? What is the main idea? What are the supporting details? Is this fact or opinion? • Teach students to summarize while they read. • Teach students to identify relevant and irrelevant information. • Teach students that good readers are active while they read and model this for them. • Provide numerous opportunities for students to practise all of the above. • Instruct students using graphic organizers, story charts, and webs. • Content Enhancement Strategic Instruction (ACCESS workshop) **Refer to ELA: 10/20/30 (p.143, 144, 150, 151)** **Refer to Appendix A.**
Reading Fluency	Student cannot read quickly and accurately. Student attends mainly to decoding each individual word. Student reads with little or no intonation or voice inflection.	**Student is able to:** • recognize words automatically; • decode words accurately and effortlessly; • use pitch appropriately; • construct meaning from text as indicated by phrasing; • draw conclusions from text; • use background knowledge to make meaning.	**Early Literacy: A Resource for Teachers:** Sample Checklist/Form: Reading and Writing Interview for Emerging Literacy Learners (p.113). **English Language Arts: K-5** Sample Reading Interview for Emerging/Early Developing Readers (p.145). Sample Running Record of Text Reading (p.149). Sample Miscue Summary/ Analysis (p.150). Sample Assessment of Student's Reading Response (p.153). **English Language Arts: 6-9** Sample Running Record of Text Reading (p.149). Sample Reading Strategies Questionaire (p.189). Sample Proficient Reader Protocol: Anecdotal Notes (p.190). Sample Observation Checklist: Metacognitive Strategies (p.193). **English Language Arts: 10/20/30** Sample Self-assessment for Reading (p.165). Suggestion Question Guide for Reading (pp.158-162).	• Provide extensive modeling of fluent reading. • Provide students with numerous opportunities to practise the skills of reading. • Include many sight words in reading passages to increase automaticity. • Use paired, repeated, shared, echo, and/or guided readings. • Use constructive feedback as the child reads. • Use choral reading and reader's theatre to make oral reading fun. • Teach students to self-identify reading errors. • Teach students that reading is a meaning making process and that comprehension is the reason we read. • Link reading to prior knowledge. • Ensure that students read material at an independent or instructional level to practise fluent reading. **Refer to ELA: 10/20/30 (p.143).** **Refer to Appendix E.**

Table 5.5. Developing the Classroom Writing Intervention Plan

Writing Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)

Transcription Skills: Writing and Spelling	Student is not able to write letters efficiently.
	
	Student is not proficient in spelling words.
		The student is able to:
		• demonstrate good visual-motor coordination;
		• print legibly and space letters, words, and sentences appropriately;
		• recognize environmental print;
		• demonstrate an age-appropriate understanding of phonemic awareness and phonics;
		• maintain attention;
		• retrieve letters from memory;
		• spell "regular" words using the phoneme-to-grapheme correspondence rules;
		• demonstrate memory of spelling patterns and of specific words for "irregularly" spelled words;
		• use a variety of spelling strategies such as approximations and confirm spelling by using resources such as a word wall;
		• proofread and edit work for accurate spelling and use dictionaries/spell checkers and other references.
			Create a student profile that identifies the following:
			• letter knowledge;
			• phonics skills;
			• high frequency word recognition;
			• memory for spelling patterns;
			• letter formation;
			• orientation to spacing of letters and organization on a page.
			
			Early Literacy: A Resource for Teachers
			Sample Multi-use Diagnostic Assessment Form for Letter-sound Knowledge (p.79).
			Phonemic Awareness: Sample Diagnostic Assessment Form (p.77).
			Sample Reading and Writing Interview for Emerging Literacy Learner (p.113).
			Assessment of Bank of Sight Words and Spelling Patterns (p.125).
			
			English Language Arts K-5
			Sample Phonological Awareness Diagnostic Assessment Form (p.117).
			Sample Letter Recognition and Letter-sound Assessment (p.156).
			Sample Spelling Inventory (p.181).
			Sample Assessment of Students' Spelling of Common Sight Words (p.182).
			Sample Misspelling Assessment and Analysis (p.183).
			
			English Language Arts 6-9
			Spelling Error Analysis (p.203).
			Spelling Knowledge and Strategies (p.204).
				• Provide activities in:
				  • writing letters from memory;
				  • copying modelled letters;
				  • alphabet retrieval.
				• Provide letter lists and word lists for reference.
				• Draw attention to patterns and similarities by focusing on known words.
				• Provide activities in:
				  • phonological awareness;
				  • alphabetical principle;
				  • word analysis;
				  • grapheme-phoneme patterns.
				• Offer opportunities to have sensory exploration of letters.
				• Practise identifying visual similarities and differences in letters and words.
				• Provide many opportunities to practise writing and spelling.
				• Have distributed practice (80 percent old with 20 percent new).
				• Teach students to use dictionaries and other references.
				• Teach students to use word processors and spell checkers.
				• Teach students to be proficient key-boarders.
				• Teach students strategies to use when they are unable to spell a word and when a resource cannot be accessed.
				• Use peer proofing and editing.
				• Provide extra time for studying.
				• Combine lower level transcription skills with higher level composing skills in an instructional session.
				• Provide a scribe, voice activated software, and/or computer keyboard if students are unable to transcribe.
				• Refer to a speech and language pathologist for further analysis if students continue to be unsuccessful in spelling even with direct, intensive instruction.
				• Refer to an occupational therapist if students are unable to produce legible letters or unable to locate or position letters correctly on a page even with direct, intensive instruction.
				Refer to Appendix G.

Table 5.5. Developing the Classroom Writing Intervention Plan – Continued

Writing Skills	Areas of Concern	Skills Required	Assessment for Instruction	Instructional Strategies (Choose the appropriate strategies for your student)

Composing Skills	Student has difficulty expressing thoughts and ideas in a coherent, meaningful, and comprehensible way.	**The student is able to:**
		• imitate writing behaviours;
		• dictate short stories to accompany own drawings;
		• understand that what can be said can be written;
		• independently initiate composing activities;
		• demonstrate confidence in his/her composing ability by getting started quickly, and making attempts before requesting help;
		• participate in language experience, and patterned, shared, and guided writing;
		• write stories about familiar events and experiences;
		• reread his/her writings and add more information if necessary;
		• organize writing in a clear beginning, middle, and end;
		• write complete sentences, using capitals and periods;
		• write personal narratives, descriptions, letters, invitations, reports, and poems;
		• write clear introductions and conclusions;
		• focus main idea in a topic sentence;
		• revise draft material by adding, deleting, and rearranging ideas;
		• write single and multiple-paragraph compositions;
		• write compound and complex sentences;
		• extend vocabulary by using homonyms, antonyms, synonyms, and affixes.
			Create a profile of student writing that includes:
			• student expressive and receptive language;
			• student interviews; and
			• sample writing.
			
			Early Literacy: A Resource for Teachers
			Sample Reading and Writing Interview for Emerging Literacy Learners (p.113).
			
			English Language Arts K-5
			Sample Emerging/Early Developing Phase Writing Checklist and Rating Scale (pp.164, 165).
			Sample Interview for Emerging Writers (p.166).
			Sample Writing Assessment: Form One and Two (pp. 168, 169).
			Sample Rating Scale for Narrative Writing (p.175).
			Sample Rating Scale for Explanatory Writing (p.176).
			Sample Writing Record (p.179).
			Sample Capitalization and Punctuation Inventory (p.184).
			
			English Language Arts 6-9
			Sample Writing Strategies Questionnaire (p.152).
			Sample Writing Process Assessment Checklist (p.153).
			
			English Language Arts: 10/20/30
			Sample Writing Process Checklist (p.129).
			Product Assessment (pp. 130-133).
				• Integrate transcription and composition skills into instruction activities in:
				  • sentence structures
				  • language development
				  • stages of writing.
				• Daily writing using journals, big books for writing, magnetic letters, chalkboards, magic slates.
				• Use read, talk, act, and then draw activities.
				• Interactive writing using whole class or small groups where students share the responsibility for writing.
				• Use sentence frames to encourage writing such as: I see…, I have….
				• Provide story starters–keep a bank of possible topics to help students get started.
				• Use pocket charts and cut up sentences to help beginning writers to understand sentence structure.
				• Use sentence imitation to help students write new sentences.
				• Assist students to find words and phrases to explain feelings and thoughts.
				• Provide organizational frames for brainstorming sentence and paragraph development.
				• Provide samples of work and models of each writing stage.
				• Expose students to many possible forms of writing.
				• Continue to read to students daily at every grade level.
				• Ask students to write about their interests and experiences.
				• Use teacher and peer conferences to encourage students to reflect on their writing (this should be a positive interaction).
				• Model and teach students the self-talk involved in writing.
				• Use visual maps to gather information prior to beginning to write.
				• Provide a scribe, voice activated software, and/or computer for those students who despite intensive and direct instruction are unable to put their thoughts into writing.
				Refer to Appendix G.

6 General Teaching Considerations

6. General Teaching Considerations

Swanson (1999) analyzed various instructional procedures and strategies to determine best practice when teaching students with reading disabilities. The following suggestions are summarized from the research:

- Combine a direct instruction approach with strategy instruction. Direct instruction includes teacher-directed lectures, discussions, and language-based learning. Strategy instruction refers to teaching students "how to learn" (e.g., test-taking skills, study skills, organizational skills).
- Present information to students in a carefully sequenced manner from simple to more complex tasks. Break it into manageable parts and then synthesize the parts into a whole. Repetition and practice are required for the acquisition and retention of information.
- Teach and model problem solving.
- Use small group instruction.
- Use interactive questioning and answering.
- Cue students to use a variety of strategies.
- Be sure intervention strategies match student's learning profile and strengths.

Other teaching suggestions to consider:

- Ask students which strategies have been most successful for them.
- Provide a rich language environment with exposure to many types of writing materials.
- Create frequent and authentic opportunities to read and write.
- Use themes to organize instruction.
- Set students up with a "study buddy" (someone with whom to double-check directions and assignments if necessary).
- Give students intermittent due dates in order to assist them along the way with lengthy assignments/projects.
- Deliver directions in a clear, concise manner.
- Break learning into manageable parts and assist students to synthesize the parts into a meaningful whole and to attach their understanding to prior knowledge.
- Repeat important information.

- Use advance organizers when presenting material (e.g., steps in problem solving).
- Communicate frequently with parents/caregivers to establish a good working relationship.
- Utilize a multi-sensory instructional approach incorporating the auditory, visual, tactile, and kinesthetic sensory modalities. Students are then able to hear, see, feel, and experience information.
- Supplement auditory information with visual cues.
- Encourage students to paraphrase instructions and directions to ensure comprehension of information.
- Actively engage students in the learning process. According to Bloom (1987), learners will retain 90 percent of what they say and do.

6.1 The Adaptive Dimension

Students with reading disabilities face many challenges within a school setting on a daily basis. Adaptations made within the learning environment can significantly reduce the difficulties students face.

Students who are reading disabled often do not need a modified or qualitatively different program. Rather, they require adaptations to the regular curriculum tailored to their individual learning strengths, needs, and interests. *The Adaptive Dimension in Core Curriculum* (Saskatchewan Education, 1992) requires teachers to make adjustments to instruction, the environment, curriculum topics, and materials to accommodate student diversity and to help all students achieve curriculum objectives. It is important to remember that adaptations must be provided to students in order to give them the same opportunity as their peers to attain the learning objectives of the regular curriculum. Adaptations should not be viewed as giving students an advantage over others or as special treatment. Adaptations are not meant to replace direct instruction in those areas most affected; that is, classroom teachers are expected to teach reading skills to students with reading difficulties. Tables 6.1 – 6.12 will assist teachers in providing adaptations for students with specific difficulties. It is important to keep a record of all adaptations. It is the responsibility of the classroom teacher to make next year's team aware of what adaptations have been used successfully.

Fairness means every student receives what he/she needs in order to be successful in meeting the demands of the regular curriculum.

6.2 Strategies and Effective Practices

Table 6.1. Adaptations for Students with Receptive/Expressive Language Difficulties

- Give students more time to respond verbally as it often takes them longer to process oral language.
- Give students more time to read passages or fewer passages to read because they are typically slow readers.
- Give students more time to complete written assignments as it often takes them longer to get their thoughts down on paper.
- Provide clear and concise instructions.
- Encourage students to paraphrase instructions.
- Provide real life examples of verbal concepts.
- Use cooperative learning teaching methods to allow students to utilize their strengths within a group.
- Provide opportunities for peer tutoring.
- Provide a reader and/or scribe when necessary.
- Provide models and writing samples for assignments.
- Allow alternate formats of assignments.
- Use a multi-sensory (auditory, visual, tactile, kinesthetic) instructional approach.
- Use demonstrations and modelling to get information across to students.
- Pair students to check directions and instructions.
- Provide a rich language environment with numerous opportunities to engage in small group listening and speaking activities.

Adapted from Mather & Goldstein (2001); New Brunswick Department of Education (1999).

Table 6.2. Adaptations for Students with Auditory/ Phonological Processing Difficulties

- Supplement lectures and directions with visuals.
- Use models, flowcharts, graphs, concept webs, and diagrams as visual aids.
- Use demonstrations to get information across to students.
- Provide a written copy of lectures.
- Provide an advance visual organizer for lectures by giving students an outline of material to be covered in class.
- Provide directions in a clear, concise manner.
- Articulate words clearly.
- Have students repeat or paraphrase directions.
- Allow students to tape record lectures.
- Decrease excess noises in class such as overhead fans, buzzing lights, fish tank, wheels in gerbil cage.
- Provide a written record of deadlines and testing days.
- Allow students to tape record their answers for examinations.
- Provide books on tape, CD, or computer.
- Provide alternative reading materials (high interest/controlled vocabulary).
- Pair students to check directions and instructions.
- Break longer presentations into shorter segments.
- Write key points/vocabulary on the board.
- Provide a sound field system in the classroom.

Adapted from Mather & Goldstein (2001); New Brunswick Department of Education (1999); Wood (1996).

Table 6.3. Adaptations for Students with Visual Processing Difficulties

- Reduce the amount of reading material on a page.
- Use a larger font for printed materials.
- Allow a scribe during timed tests or allow extra time.
- Teach students keyboarding skills.
- Provide students with a portable keyboard or computer.
- Accept oral reports.
- Allow students to use finger or guide (ruler) when reading.
- Teach students highlighting techniques.
- Highlight or bold important information for students.
- Provide students with a copy of lecture notes.
- Try using non-glare visual overlays.
- Provide students with graph paper to assist with organization.
- Provide writing guides to help students organize their written work.
- Allow for spelling errors on examinations and in class writing.
- Demonstrate and model a quality assignment.
- Provide an outline of the grading criteria for each assignment.

Adapted from New Brunswick Department of Education (1999); Wood (1996).

Table 6.4. Adaptations for Students with Visual-Motor Processing Difficulties

- Provide students with guides and outlines for written projects.
- Provide students with supports to make notes such as a graphic organizer, a copy of lecture notes.
- Teach students how to use a graphic organizer.
- Teach students keyboarding.
- Provide students with portable keyboard or computer.
- Allow students to do oral presentations instead of writing.
- Provide a scribe.
- Recognize that it may be be necessary to adapt evaluation procedures for students who have difficulty completing fine and/or gross motor activities.
- Break down new gym activities into smaller steps that are easier to learn and achievable.
- When teaching students a new skill, demonstrate the task and position the body so they can "feel" how to perform the task.
- Provide opportunities to practise skills prior to gym class with a smaller group or on an individual basis.
- Provide students with extra time to complete a task.
- Monitor students' grasp of pencil.
- Provide students with pencil grip to encourage proper tripod grasp.
- For younger students, consistently model left-to-right sequencing.
- Familiarize students with the floor plan of the school as some students may experience orientation difficulties.
- Keep classroom organized and clear of clutter.
- Have a peer buddy to help with directional concepts such as "find the bottom right hand corner of the page".

Adapted from Alberta Education (1996); Wood (1996).

Table 6.5. Adaptations for Students with Attention Difficulties

- Gain students' attention before speaking.
- Use a multi-sensory (auditory, visual, tactile, kinesthetic) instructional approach.
- Give students more time to complete tasks.
- Allow students to write examinations in a room free of distractions.
- Set students up with a study buddy–someone with whom a student can double check for instructions and assignments.
- Provide students with daily schedule.
- Reinforce students for persistent effort.
- Alternate tasks that have high activity with tasks that require low activity.
- Bring students' interests into assignments.
- Provide study carrels or booths for students to work in so they can use their assistive technology in the classroom.
- Cue students to stay on task (nonverbal signals).
- Use self-monitoring strategies and teach the strategies.
- Send daily/weekly progress notes home to track improvement patterns.
- Develop a reward system for completion of homework and schoolwork.
- Break assignments into small segments.
- Seat students near positive role models.
- Increase distance between desks.

Adapted from Alberta Learning (1996); Mather & Goldstein (2001).

Table 6.6. Adaptations for Students with Memory Difficulties

- Teach students to organize themselves and their materials in such a way as to promote good recall. Students need to be able to identify what works best for them.
- Provide extra time for questions and tests to accommodate slower retrieval of information.
- Provide brief daily review sessions to reinforce long term memory.
- Provide a list of key words to trigger memory on long essay questions.
- Teach students to use visual imagery.
- Use a multi-sensory (auditory, visual, tactile, kinesthetic) instructional approach.
- Use the Every Pupil Response (EPR) strategy. Have all students respond to questions by using finger signals, small individual white erase boards or chalkboards. With the EPR strategy, all students are involved as opposed to one student responding.
- Promote learning and memory by involving students in cooperative learning activities.
- Encourage students to recite/rehearse information.
- Teach students acronyms to remember information (e.g., HOMES = Huron, Ontario, Michigan, Erie, Superior).
- Develop acrostics to remember information (e.g., Make a sentence to cue words or letters. **E**very **g**ood **b**oy **d**eserves **f**udge. (e, b, d, f, for musical notes).
- Focus less on memorization and more on applied problem solving and meaning.
- Have students teach the material to someone else as an effective technique for reinforcing information.
- Encourage students to study with partners and ask each other questions.

Adapted from Alberta Education (1996); Banikowski & Mehring (1999); Mather & Goldstein (2001); New Brunswick Department of Education (1999).

Table 6.7. Adaptations for students with Metacognitive Difficulties

- Teach students to recognize their learning strengths and the adaptations and strategies that work best for them.
- Ask metacognitive questions to prompt students to develop their own self-regulation for learning. For example:
  - How am I going to remember my lunch? my homework?
  - How can I ensure I understand what I am reading?
  - What can I do to remember this concept?
- Remind students that metacognition is an important part of the problem-solving process. Good problem-solving strategies include:
  - understanding the question/problem;
  - considering alternatives to solving the question/problem;
  - choosing a solution;
  - monitoring the choice;
  - evaluating the plan; and
  - remediating if necessary.
- Model and demonstrate various problem solving strategies by "thinking aloud".
- Use questioning techniques that encourage students to reflect on their thinking.
- Model higher order questioning skills.
- Increase the wait time after questioning to encourage higher level thinking and to increase the number and length of student responses.
- Make a list of problem solving behaviours to post in the classroom.

Adapted from Alberta Education (1996); Mather & Goldstein (2001).

Table 6.8. Adaptations for Students with Test-Taking Difficulties

- Give students more time to write examinations.
- Allow students to write examinations in a quiet room, free from distractions.
- Give students the option of an oral examination.
- Provide a reader and/or scribe for examinations.
- Teach students to create study notes and allow use of these during test taking.
- Allow open book examinations.
- Give take home examinations.
- Give students frequent short quizzes as opposed to long examinations.
- Keep directions short and simple; avoid unnecessary words.
- Go over directions before the test. Be sure students understand what is to be done.
- Teach students how to approach tests in a systematic manner (e.g., look over entire test, check value system).
- Use alternative grading techniques:
  - grade by achievement level (above or below average);
  - grade by progress (how much learning has occurred);
  - alternative grades (pass/fail or satisfactory/unsatisfactory); and
  - task mastery grading (must attain a certain level of mastery).

Adapted from Mather & Goldstein (2001); Wood (1996).

Table 6.9. Adaptations for Students with Homework Completion Difficulties

- Ensure that students are able to do the assignment.
- Adjust the length of the assignment.
- Provide intermittent due dates for assignments.
- Adjust due dates.
- Provide a peer tutor or study buddy.
- Arrange a study group.
- Provide choices for assignments (e.g., write an essay, design a poster, or demonstrate an interpretive dance that depicts the Swahili culture).
- Provide options for extra credit.
- Reduce the amount of homework given to students who have reading and writing difficulties because it can take them twice as long to complete the work.
- Teach parents how to assist their children with homework completion.

Adapted from Mather & Goldstein (2001); Schloss, Smith, & Schloss (2001).

Table 6.10. Adaptations for Students with Study and Organizational Difficulties

- Be consistent, predictable, and structured.
- Ensure that students know what to expect.
- Colour-code books or assignments.
- Provide individual file folders or writing binders.
- Hole-punch all handouts before handing them out.
- Provide students with a homework log and/or calendar that fits in binder and teach students how to use.
- Monitor the use of calendars and organizers.
- Provide clear, written expectations for each assignment.
- Use a classroom calendar and remind students of due dates.
- Give students a checklist to follow with specific dates given for completion of individual parts of an assignment.
- Provide a list of assignments and examinations to parents/caregivers.
- Maintain an organized classroom.
- Hand out worksheets/readings one at a time.
- Have supplies readily accessible for students.
- Teach students organizational skills (e.g., establish priorities, make lists, follow schedules).
- Assign volunteer homework study buddy.
- Allow students to have an extra set of books at home.

Adapted from Mather & Goldstein (2001); New Brunswick Education (1999).

Table 6.11. Adaptations for Students with Social Skills Difficulties

- Model and role play social situations to give students practice working through issues.
- Provide immediate specific feedback after a social skill has been practised.
- Model and encourage strategies for self-monitoring and self-evaluation.
- Tape a self-monitoring checklist to students' desks (when age appropriate) and establish a cueing system to signal when to self-monitor (e.g., students may periodically hear a tone from an audiotape set at designated intervals or a quiet alarm on a watch).
- Be proactive–establish classroom procedures, rules, and consequences with students.
- Post list of responsibilities of students and teachers.
- Develop a listening checklist.
- Help students develop an internal locus of control by reinforcing their roles in successes. Say, "You did well; you must have worked hard on that."
- Have students repeat similar tasks they have completed successfully to ensure they understand that they are responsible for their achievements.
- Reinforce students for making positive statements.
- Model caring, respect, and acceptance.
- Provide encouragement and support.
- Review behaviours necessary for following directions:
  - look at speaker;
  - listen;
  - repeat directions to yourself;
  - ask for clarification if needed; and
  - perform directions.
- Discuss the correct procedures for asking for assistance:
  - Have you thought through the problem?
  - How will you make the request?
  - How will you indicate to another that you need assistance?
  - Did you wait for your turn to be assisted?
  - Did you thank the person assisting you?

Adapted from Alberta Education (1996); Wood (1996).

Table 6.12. Assistive Technology Adaptation

- Assistive technology refers to any item, piece of equipment, or product that is used to help individuals improve their ability to perform specific tasks.
- Provide students with a word processor and teach them how to use it effectively.
- Provide assistive technology such as speech to text software (as student speaks text appears on computer screen), text to speech software (computer reads books, newspaper, web information to student), and software that voices what a student types.
- There are many hardware tools such as: Alpha Smart (portable keyboard), QuickLink Pen (handheld text scanner), and Reading Pen II (handheld tool that allows students to scan a word, hear the word read aloud, and get the definition). Please refer to Appendix J for details on Assistive Technology.

Please refer to The Adaptive Dimension in Core Curriculum (Saskatchewan Education, 1992) and Core Curriculum Components and Initiatives: Important Understandings (Saskatchewan Learning, September 2003a) for further information on adaptations for students with diverse needs.

7 Transition Planning

7. Transition Planning

A transition is any event that results in changes to relationships, routines, assumptions, or roles. Transitions are a normal part of life and occur throughout the life cycle. For students, transitions occur at various times during their educational programs; for example, starting school, changing grades, and moving from school to post-school settings. While any student can have difficulty with transitions, students with learning disabilities often have more difficulty managing the transitions in their lives.

7.1 Key Principles of Effective Transitions

Effective transitions are planned

In order for any transition to be successful, it must be carefully planned. Planning should start well in advance of the actual transition regardless of whether a student is

- moving from one activity to another;
- moving to another grade;
- graduating from high school;
- transitioning to a workplace; or
- getting to know new support people.

Programming decisions need to be based on an understanding of the individual student. This means understanding the individual student's strengths, needs, and goals as well as those of the student's family. Similar to Personal Program Planning (PPP), transition planning should be dynamic and ongoing because preferences regarding transition objectives may change. Finally, a written record of transition planning, including transition goals and strategies, should be included in a student's PPP.

Effective transitions are the result of a collaborative effort

Successful transitions involve input from a variety of people, including students, parents, special and general education teachers, and community-based personnel. Collaboration is directed toward creating a supportive relationship and providing a problem-solving approach to transition planning.

As students move through the educational system, they need to become more involved in planning their own transitions. Research has consistently shown that student involvement in the planning process helps students to develop an understanding of their learning

disabilities and provides opportunities for them to develop much needed self-advocacy and problem-solving skills.

Effective transition planning is comprehensive in scope

Students with learning disabilities may face a variety of challenges, including academic, social, vocational, and interpersonal difficulties. As a result, transition planning should focus not only on the academic skills needed for success, but also on helping students develop the ability to problem-solve in new situations, to monitor and regulate their own performance, and to interact appropriately with peers and authority figures. Comprehensive transition planning also means helping students become aware of their strengths and the type of supports and adaptations available to them in dealing with their learning difficulties.

7.2 Facilitating Effective Transitions

During the Elementary School Years the Transition Plan should include the following:

- strategies to help the student feel comfortable with new surroundings and people, (e.g., arranging for the student to visit new classrooms and meet with new teachers);
- identifying the skills the student will need in the next environment and providing opportunities to learn these skills;
- parent involvement in becoming advocates for their child;
- listening to student's concerns about transitions. Engage in frequent discussion about the transition and highlight the positive aspects of a new environment;
- establishing consistent homework and study routines;
- encouraging the student to become an independent learner and praising his/her effort;
- teaching effective organization and study strategies, such as time management, note taking, test preparation, and test-taking strategies;
- highlighting student strengths, needs, and effective strategies for subsequent teachers; and
- a copy of the Personal Program Plan in the student's file.

During the Middle Years the Transition Plan should include the following:

- planning opportunities to begin exploring career interests;
- student awareness of his/her learning strengths;
- student involvement in transition planning and goal setting;
- teaching the student to monitor his/her progress and developing a plan to share perceptions with the planning team;
- teaching the student to become a self-advocate;
- teaching the student effective study strategies, such as time management, note taking, test preparation, and test-taking strategies;
- exploring appropriate assistive technologies;
- awareness of student strengths, needs, and effective strategies for subsequent teachers; and
- a copy of the Personal Program Plan in the student's file.

During the High School Years the Transition Plan should include the following:

- active parent involvement;
- career exploration;
- highlighting the differences between high school and post-secondary settings;
- teaching learning, study, and organizational strategies;
- awareness of appropriate adaptations and assistive technologies;
- all the necessary documentation to receive support in post-secondary settings;
- exploring post-secondary institutions and other community-based services; and
- a copy of the Personal Program Plan in the student's file.

Reproduced with permission from Alberta Learning, *Unlocking Potential: Key Components of Programming for Students with Learning Disabilities* (Edmonton, AB: Alberta Learning, 2002), pp.35-38.

As students prepare to transition, it is extremely important they have a clear understanding of what they need in order to be academically successful. As students enter the secondary level they should be aware of and be able to implement the steps of self advocacy.

Please refer to Appendix I for:

- Transition Checklist.
- Post-Secondary Institutions and Community Based Services for Students with Learning Disabilities.

8 Self-Advocacy

8. Self-Advocacy

Self-advocacy refers to taking action on one's own behalf. Studies of highly successful adults with learning disabilities have identified the ability to self-advocate as an important factor contributing to success. Acts of self-advocacy can lead to self-determination, which contributes to positive outcomes for adults with learning disabilities. Self-determination can be defined as the ability to consider options and make choices that affect one's future.

Students with learning disabilities need to advocate effectively for themselves. They need to learn strategies for problem solving and setting goals. They need to be aware of both their strengths and areas of difficulty, be able to understand and accept their learning disability, and to take responsibility for themselves. As students are developing self-advocacy skills, they need to have the opportunity to practise these skills in a supportive environment. The process needs to begin early in the student's school career and to be practised actively in the adolescent years.

8.1 Challenges to Self-Advocacy

Students with learning disabilities may not self-advocate effectively for a number of reasons.

- They may lack knowledge of themselves as learners and have difficulty clearly describing their abilities, their needs, and the conditions that best promote their learning.
- They may not know who to speak with to obtain the necessary assistance or adaptations, what to ask for or how to best utilize supports.
- They might lack the ability to articulate personal strengths and needs clearly and appropriately. This may be a result of expressive language difficulties, weak social skills or lack of practice in describing their needs.
- They may not have been directly taught appropriate self-advocacy skills and/or do not have someone to coach them through situations where they might have to self-advocate.
- They may have limited confidence in their abilities and low self-esteem. As a result, they may be reluctant to ask questions in class or to ask for extra assistance. They may not want to be thought of as stupid or a trouble maker.

- They may be passive in their approach to their education, feeling that their educational future is beyond their control. This includes relying on their parents and teachers to advocate for them.
- They may encounter people (home, school, community, workplace) who do not understand learning disabilities and why adaptations or assistance might be appropriate.

8.2 Facilitating Self-Advocacy

Involve the student in decision making about his/her education.

- Involve the student in planning and implementing the Personal Program Plans. The student's input and involvement should increase as he/she proceeds through school.
- Provide opportunities for making plans and having choices.
- Involve the student in evaluating performance and increasing self-monitoring and personal responsibility for learning (e.g., goal setting, rubrics, portfolio assessment).

Help the student understand his/her strengths and needs.

- Talk with the student about the concept of learning disabilities and his/her particular strengths and needs.
- Provide specific feedback that assists the student to understand how he/she learns best (e.g., "You seem to remember better when you get a chance to 'see' the information").
- Assist the student in learning to describe his/her thinking. Talk aloud describing your own thinking and encourage the student to talk aloud about their thinking. Rephrase their ideas to highlight their learning strengths and needs.
- Explain assessment results so students understand their abilities, their needs, and the implications for their schooling and life.

Model and teach appropriate self-advocacy skills:

- Younger students first learn self-advocacy skills through observing how parents, teachers, and others advocate on their behalf. Begin early by discussing their learning strengths and needs with children, as well as your observations on how they learn best. Also, involve children in conversations about program planning. Even if they just listen, they are learning about collaboration and problem solving.

- Steps for self-advocacy for teens can be found in several resources. These skills need to be:
  - demonstrated;
  - role-played;
  - practised; and
  - evaluated.

  Extensive guidance needs to be provided during the middle years with greater expectations for independence during the secondary level.
- Help students to prepare for meetings, conversations with instructors, or other situations where they may be involved in planning their educational future. Model and role-play appropriate interactions.
- Self-advocates need to be informed and organized in order to be effective. Helping students prepare and organize their information may assist with the advocacy process.
- Students may also learn a great deal from others who have gone through similar experiences. Provide students opportunities to meet mentors with learning disabilities so they might learn from the experiences of these individuals.

Help students set appropriate and realistic goals for their learning:

- A very important part of educational decision making for students with learning disabilities is setting appropriate goals. Students themselves should be actively involved in this process and taught ways to make goals tangible and realistic. One strategy is to make goals SMART: Specific, Measurable, Achievable, Realistic, and Time Related.
- Follow up with students to review their success in achieving their goals. Self-monitoring and evaluation are important for developing realistic goals.

Reproduced with permission from Alberta Learning, *Unlocking Potential: Key Components of Programming for Students with Learning Disabilities* (Edmonton, AB: Alberta Learning, 2002), pp.41-44.

8.3 Conclusion

> …there is no one answer to understand why an adolescent struggles with reading. For there to be only one answer, there would have to be only one cause, and for there to be one cause, all students would have to be alike, learn alike, have had the same experiences. Instead, there is no single template for the struggling reader. Second, while there is no single answer, there are answers. My chant of 'These kids can't read' wasn't the wrong chant–they couldn't read. What was wrong was using that as an excuse for not teaching them. Once I was willing to add the question, "They can't read, so what am I to do?" then answers–not one, but many–began to emerge. (Beers, 2003, p.7)

Not a Matter of Luck

Most of my peers look back on their grade school experience as positive; I remember school as a very difficult time in my life, one which was fret with **embarriassment**, **dissappointment**, shame, but ultimately commitment. It was around the third grade teachers began to notice I was falling behind other students **particularily** in the areas of writing, reading and spelling. I don't remember exactly how it happened but I do remember being introduced to a very caring individual who had me complete puzzles, picture cards and other activities. I now understand he was assessing my abilities and academic achievement. He then explained to my parents that I had a learning disability, which affected auditory processing. In short I was and am unable to decode words by "sounding it out". spelling was impossible and of course this affected my ability to express my thoughts in writing. For the next four years I worked with special education teachers which often involved going to the "dumb kid room". I wonder if schools will ever figure out a way to provide instruction without the misperception. It was so embarrassing; however what I learned during these sessions changed how I approached **learingin**. They taught me firstly that I was neither dumb nor slow but rather that I learned differently. There would be areas that I would never master but with the proper accommodations and strategies I could learn and more importantly demonstrate my understandings. The teachers in my small rural school expended a great deal of time and energy working with both my parents and myself to adapt class materials to **accomidate** my identified learning abilities.

continued

Poor school performance tends to **depleat** a kid's self esteem and I was no different. I had no true sense of who I was or what I was capable of, except the guy who "sucked at school." My parents quickly picked up on the problem and attempted to help me find my areas of strength. From guitar lessons and band to after school volleyball and hockey camp they exposed me to all sorts of activities with the hopes I might find my niche. When I turned twelve I developed a strong interest in waterskiing. I remember telling my parents "this is what I want to do!" They listened and signed me up for lessons. The coach explained to them I had a talent for the sport and suggested I compete the following year. I recall an incredible feeling of accomplishment, which many people tend to take for granted and I don't think I can really explain. On the water I was an equal. I focused all my efforts on the desire to excel in this sport and as a result, my self-esteem and grades began to improve. Mom and Dad apparently understood how difficult it was and how hard I had to work to do what most kids took for granted. They also understood that without assistance I would continue to feel frustrated and perhaps even overwhelmed. So I was encouraged to excel in sports while trying to do my best at school. For the most part my parents and teachers worked together to ensure things moved ahead.

Transition to high school was not easy. Most teachers were understanding and gave special consideration to my academic needs however, for every ten exceptional teachers one will not or cannot understand. These are the teachers who think if only you tried harder, study more, or perhaps you are just not smart enough to graduate. There was one teacher in high school who believed a strict diet of criticism and ridicule would improve my spelling. It is strange how you never forget the really great teachers but you also never forget the times when you were embarrassed in front of your friends. When these things happened my parents would listen, investigate and never hesitate to meet with teachers. They insisted I attend these meeting and now as an adult I understand why.

Following graduation I was off to university. My first year was pretty much a write off or as I like to call it an "adjustment period". I realized I had to become better at self-monitoring my study habits and seek out better strategies for success. I took a year off to review all my options, and with the support of my parents, I decided to enroll in a university which offered sports scholarships. Realizing sports was the key to maintaining my self-esteem I focused on training. I sought out fellow team members who had developed positive study habits and modeled their strategies. Early morning study sessions, when I was alert and awake, followed by training and classes, this schedule became my

motto and it paid off. I graduated with a BA in Psychology, a member of the Dean's List, and was inducted into the Honors Society for Psychological Study.

Although I now had a degree I still felt I had more to prove to myself. I decided I had to continue with my studies. Again, after a year of reviewing my options I enrolled in a Masters Program for Education Psychology. I successfully completed the program in 2000. I never fell behind and I never failed a class. It may have taken me longer to complete assignments or to read that one page which never seemed to sink in, but I always managed to get the job done. Throughout the program I consistently used the strategies that had worked in the past, a strict regiment of studying, allowing plenty of time for reading assigned materials, and passing all written materials through a word processor and having friends edit my papers. It seems so simple now, but these strategies took a long time to learn and perfect.

I now manage a treatment program for offenders. I oversee two other therapists and quality control all psychological reports for content (how's the irony in that?). I still have a learning disability, but I manage by using all the strategies I have learned throughout the years. I make lists, try never to spell in public (never enter spelling bees or scrabble contests) and to never debate someone about multiplication facts since that is another area which is often affected, math facts. So you might say isn't he lucky and you're right but luck doesn't have much to do with it. There are certain things that made the difference. The best advocate a child with a learning disability has is a parent. My parents stood by my side through all the tough times, never once believing I was just a "dumb kid". They had realistic expectations of my ability based on the assessments provided to them. They encouraged me to participate in as many extracurricular activities as I could, to explore my other abilities, and to most **importiantly**, feel good about who I was. They also took time to learn everything they could about learning disabilities. Also important were the teachers who made the accommodations, taught the strategies and who believed I had the ability. A recipe for success, parents, teachers, and the child working together. Most important for me was I understood the problem, knew I had potential and was fortunate to be part of terrific family.

RF B..A, M.Ed.
Institutional Psychologist

*** As an aside, all of the **bold** words are spelt incorrectly.
I'm comfortable with that ***

Appendix A

Strategies and Resources for Assessing and Teaching Reading Comprehension

A1 Assessment of Reading Comprehension

A1.1. Retelling: Sample Checklist for Assessing Retelling in the Emerging Phase 1

Child's name: _____ **Date:** _____

Title of story: _____

Place a check mark next to each element the child includes in her or his retelling. Note the extent to which the retelling was "Assisted". Add anecdotal comments as soon as the child returns to another activity.

Setting

- Tells where the story begins, or makes a statement about time and place. _____

Characters

- Names the characters at some point in the retelling.
  (Include one check mark for each character that was included). _____
- Describes some characteristic/s of the characters (e.g., personalities, appearance).
  (Include one check mark for each characteristic mentioned). _____

Episodes

- Describes the main events or episodes in the story.
  (Include one check mark for each event). _____

Ending (problem resolution)

- Describes how the story's problem was solved or an important goal
  (desire, wish) was attained. _____

Sequence

- Retells the story in the correct order from beginning to end. (Include three check marks if all episodes were told in order; two check marks if most were in order; one check mark if some attention was paid to the order). _____

Book Language

- Uses some of the author's language in the retelling.
  - begins with a story phrase like Once upon a time
  - uses descriptive words the author used such as, enormous
  - uses phrases or repetitions from the book (e.g., *"Not I", said the* ____). _____

Assistance (none, a little, a lot) _____

Comments (Behaviours noted during retelling, asides the child made, etc.)

From *Early Literacy: A Resource for Teachers* (p.52) by Saskatchewan Learning, 2000, Regina, SK: Author.

A1.2. Retelling a Story by Using Questions

Name: _____ Grade: _____ Date: _____

<table>
<tr><td colspan="3">Title:</td></tr>
<tr><td>Setting:</td><td>Where did the story take place?</td><td>When did it happen?</td></tr>
<tr><td>Characters:</td><td>Who was in the story?</td><td>What was he/she like?</td></tr>
<tr><td>Problem/Goal:</td><td colspan="2">What was the main problem or goal?</td></tr>
<tr><td rowspan="3">Main Events:</td><td colspan="2">What happened first, second, and third in the story?
1.</td></tr>
<tr><td colspan="2">2.</td></tr>
<tr><td colspan="2">3.</td></tr>
<tr><td>Solution/ Resolution:</td><td colspan="2">How was the problem solved or the goal achieved?</td></tr>
</table>

Students can retell stories through various modalities:
- Speaking
- Writing
- Drawing
- Dramatization

From *Orchestrating Success in Reading* (p.487) by D. Reithaug, 2002. West Vancouver, B C: Stirling Head Enterprises. Reprinted with permission.

A2 Components of Reading Comprehension Skills and Strategies

Many reading strategies have been developed by numerous researchers. Collins, Block, and Pressley (2002) outline several categories of comprehension strategies that have been found to be successful.

- **Comprehension Monitoring**
  Students are taught how to be aware of their understanding of the material.

- **Question Generation**
  Students are taught to ask themselves questions about various aspects of the story or informational text.

- **Use of Graphic and Semantic Organizers**
  Students are taught how to make graphic representations of the reading material.

- **Prior Knowledge**
  Students are taught to relate the content of the text to their personal lives and attempt to make predictions based on their knowledge.

- **Mental Imagery**
  Students are taught to create pictures in their heads that represent the text they have read.

- **Summarization**
  Students are taught to find the main ideas.

- **Question Answering**
  Students answer questions posed by the teacher and receive immediate feedback.

Adapted from Collins Block, & Pressley (2002); National Institute of Child Health and Human Development (2000).

A3 Reading Comprehension Activities to Get You Started

Self-Questioning Strategies

Proficient readers frequently self-monitor their reading. For example, they often stop while reading to ensure they are comprehending the material they are reading. They ask themselves, "Does this make sense?" If it does not, they will go back to where they were "connected" with the text. It is important for teachers to model self-questioning strategies. Cue students to ask questions. Self-questioning helps students monitor and comprehend the material being read.

- ❑ Does this make sense?
- ❑ What has happened so far?
- ❑ What will happen next?
- ❑ How does this relate to what I already know?

Adapted from Alberta Education (1996).

5 W's – Why, When, Where, What, and Who

- As students read, they lightly write in the margin the appropriate cue (one of the 5 w's) and highlight the pertinent information.
- After reading, the students go back to the cues and use them as the basis for making notes and reviewing the content.

Adapted from Learning Disabilities Association of Canada (1999).

Reciprocal Teaching Strategy

The teacher models the following steps prior to students using the strategy in a small group setting. Students take turns being the "leader" of the group and applying the following steps:

1. **Predict** what will happen in the text by using headings, subheadings, pictures, charts, and any other information that might be helpful.
2. **Read** the passage independently or together.
3. **Question** – formulate questions about what was read.
4. **Summarize** the important information.
5. **Clarify** any information that is difficult to understand and review the meaning of any new vocabulary.
6. **Predict** what might occur later in the text.

Adapted from Palincsar, & Brown (1984).

Form a Visual or Mental Picture

- Initially, **read out loud** a variety of descriptions and have the students follow along in the text. Begin with **familiar descriptions** or **simple ones**. As you read the description, encourage the students to try to picture it in their minds.
- Then have the students do a follow-up activity:
  - match the description to the picture;
  - draw a picture;
  - discuss the description;
  - write a response or a reaction; and
  - write a descriptive passage and present it to the group.
- Once the students have developed this skill, have them silently read a descriptive passage and do one of the above activities. Encourage students to "see" what they are reading–the details, the colours.
- Works well with any form of literature.

From *Destination Literacy: Identifying and Teaching Adults With Learning Disabilities* (p.128) by Learning Disabilities Association of Canada, 1999, Ottawa, ON: Author. Reprinted with permission.

Peer Assisted Learning

- Students work in pairs and discuss what they have read. After students read a passage, they discuss the content. The following questions can guide their interactions.

Learning with a Peer

Understanding Stories	**Understanding information in social studies, science, and other texts**
Who were the characters?	How did the author organize the information?
Where did the story take place?	What picture or charts went with the information in the text?
What happened in the story?	Reread the most important part.
Why did these things happen?	Did the author have an opinion about the topic? If yes, what was his/her opinion?
How did things turn out?	How could the text be arranged differently?
How was this story similar or different to other stories you have read?	
Optional: Complete a story map.	Optional: Complete a graphic organizer.

From *Orchestrating Success in Reading* (p.459) by D. Reithaug, 2002, West Vancouver, BC: Stirling Head Enterprises. Reprinted with permission.

SCORE

S – Setting

- **Where**
- **When**
- **Main Characters**

C – Conflict

- **Problem**

O – Order of Events (plot)

1.
2.
3.
4.
5.

R – Reaction of Main Characters (internal and external)

1. _____
   _____
   _____
2. _____
   _____
   _____

E – Ending (resolution of conflict)

From *Accommodating Students With Reading and Writing Difficulties in the General Education Classroom (handouts)* by Mather, 1998. Reprinted with permission.

Story Questions

1. **Where does your story take place?**

_____

_____

_____

2. **Who are the main characters and what are they like?**

_____

_____

_____

3. **What happens to them?**

_____

_____

_____

4. **What do they do about it?**

_____

_____

_____

5. **What happens at the end of the story?**

_____

_____

_____

From *Accommodating Students With Reading and Writing Difficulties in the General Education Classroom (handouts)* by Mather, 1998. Reprinted with permission.

Story Structure

My Story Map

Name: _____ Date: _____

The Setting: **Time:** **Place:**
Characters:

The Problem:

The Goal:

Action:

The Outcome:

1. **Where did this story take place?**
2. **When did this story take place?**
3. **Who were the main characters in the story?**
4. **Were there any other important characters in the story? Who?**
5. **What was the problem in the story?**
6. **How did _____ try to solve the problem?**
7. **Was it hard to solve the problem? Explain.**
8. **Was the problem solved? Explain.**
9. **What did you learn from reading this story? Explains.**
10. **Can you think of a different ending?**

From "Group Story Mapping: A Comprehension Strategy for Both Skilled and Unskilled Readers" by L. Idol, 1987. *Journal of Learning Disabilities, 20*, pp. 197-199. Reprinted with permission.

Appendix B

Strategies and Resources for Assessing and Teaching Phonemic Awareness

B1 Hierarchy of Phonemic Awareness Skills:

In order to provide appropriate intervention, it is important to understand the hierarchy of skills involved in phonemic awareness. Skills must be taught beginning with simple skills and moving toward more complex skills.

Skills are listed from simple to complex

1. Rhyme Recognition

The ability to identify if a pair of words rhyme. For example, do pat and fat rhyme? (yes) Do fox and fairy rhyme? (no).

2. Rhyme Production

The ability to produce a rhyming word. For example, tell me a word that rhymes with "kiss", "cat", "dog".

3. Alliteration Identification

The ability to identify the common sound in different words. For example, tell me the sound that is the same in baby, bark, and big (/b/).

4. Alliteration Discrimination

The ability to identify the word that has the odd sound. For example, tell me which word does not belong in bake, bug, and rat (rat).

5. Sentence Segmentation

The ability to identify individual words in a sentence. For example, clap for each word you hear in a sentence, "I love you". The child should clap three times.

6. Segmenting Compound Words

The ability to identify that some big words are made up of two little words. For example, clap one time for each little word you hear in this big word: "mailbox", "snowman".

7. Segmenting Words into Syllables

The ability to identify the number of beats or syllables in a word. For example, say a word and have the child clap one beat for each syllable: "cat" (1), "garden" (2), "dinosaur" (3), "dysfunctional" (4).

8. Blending Syllables

The ability to blend parts of words. For example, say "cup–cake" with a slight pause between the two words. Ask the child to identify the whole word–(cupcake). Other examples are "pen–cil" and "hap–py".

9. Segmenting Phonemes

The ability to identify the individual sounds in a word. For example, ask the child to say the word "cat" and place a block on the table for each sound in the word "c – a – t" (3), "f – l - a – g" (4), or "g – o" (2).

10. Blending Phonemes

The ability to blend phonemes or individual sounds in a word. Begin with two to three phonemes and progress to four. For example, say "g – o" or "s – oa – p" with a slight pause between each sound and ask the child to identify the word.

11. Identifying the Initial Sound in a Word

The ability to identify the first sound heard in a word. For example, ask the child to identify the first sound in the word "time" /t/.

12. Identifying the Final Sound in a Word

The ability to identify the last sound heard in a word. For example, ask the child to identify the last sound in the word "time" /m/.

13. Identifying the Medial Sound in a Word

The ability to identify the middle sound heard in a word. For example, ask the child to identify the middle sound in the word "time" /i/.

14. Deleting a Phoneme

The ability to manipulate the individual sounds of a word. For example, say the word "bat" and say it again without the /b/ (/at/).

15. Adding a Phoneme

The ability to add a sound to a group of sounds or to a one syllable word. For example, if you add the /b/ sound to /at/ you say "bat". Add the /h/ sound to /it/ "hit" or add the /p/ sound to /op/ "pop".

16. Substituting the Initial Phoneme in a Word

The ability to change the first sound in a word. For example, say the word "cat" and then say it again with /b/ for /k/. You then have "bat" instead of "cat".

17. Substituting the Final Phoneme in a Word

The ability to change the last sound in a word. For example, say the word "bit" and then say it again with /d/ for /t/. You then have "bid" instead of "bit".

18. Substituting the Medial Vowel Phoneme in a Word

The ability to change the middle sound in a word. For example, say the word "bad" and then say it again with /u/ for /a/. You then have "bud" instead of "bad".

Adapted from Ericson, & Juliebö (1998), Feifer, & De Fina (2000), Mather, & Goldstein (2001), Reithaug (2002).

B2 Assessment for Phonemic Awareness Skills

Various assessment tools are available to evaluate phonemic awareness skills. Teachers are encouraged to choose the test(s) that best meets the needs of the student.

The following tests are included in the assessment section:

B2.1. Informal Phonological Awareness Test

Assesses a range of phonemic awareness skills (rhyming–discrimination and production), segmenting (compound words and syllables), isolating phonemes (initial, final, medial), blending and segmenting phonemes). Scoring key is provided.

B2.2. Rosner Test of Auditory Analysis

Assesses one's ability to delete a syllable and/or a phoneme in a word. Scoring key is provided.

B2.3. Phonemic Awareness: Sample Diagnostic Assessment Form

Assesses awareness of rhyme and alliteration as well as the ability to blend and segment words. Scoring key is not provided.

B2.4. Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Materials and scoring procedures in the following areas are available online at (http://dibels.uoregon.edu/). Schools and school divisions may make unlimited photocopies of these materials for educational use.

- Initial Sounds Fluency
- Letter Naming Fluency
- Phonemic Segmentation Fluency
- Nonsense Word Fluency
- Retell Fluency
- Oral Reading Fluency

B2.1. Informal Phonological Awareness Test

Name: _____ Age: _____ Date: _____

– SCORING KEY –

0 – 1 Not Mastered

2 – 3 Emergent

4 – 5 Mastered

RHYMING:

Discrimination: **NM** **E** **M**

Directions: "I'm going to say two words and ask you if they rhyme. Listen carefully."

Demonstration Item: "Fan rhymes with man. Do rat and mat rhyme?"

Additional demonstration items: lag/log
mitt/fit

1. book/look (yes)
2. un/run (yes)
3. ring/rat (no)
4. box/yes (no)
5. fish/dish (yes)

Production: **NM** **E** **M**

Directions: "I'm going to say a word and I want you to tell me a word that rhymes with it. Listen carefully." (Note: Nonsense words are acceptable.)

Demonstration item: "Tell me a word that rhymes with bat."

Additional demonstration items: miss
log

1. cat
2. pot
3. tame
4. wrinkle
5. brother

B2.1. Informal Phonological Awareness Test – Continued

SEGMENTING COMPOUND WORDS: **NM** **E** **M**

Directions: "I'm going to say some big words made up of two little words. I want you to clap one time for each little word. Listen carefully."

Demonstration item: "mousetrap" (model clapping)

Additional demonstration items: birdhouse
football

1. cupcake
2. mailbox
3. horseshoe
4. snowman
5. bedtime

SEGMENTING SYLLABLES: **NM** **E** **M**

Directions: "I'm going to say a word and I want you to clap one time for each beat or syllable. Listen carefully."

Demonstration item: "bicycle" (model clapping)

Additional demonstration items: cat
summer

1. house
2. garden
3. pocket
4. fantastic
5. dinosaur

ISOLATING PHONEMES:

<u>Initial Position:</u> **NM** **E** **M**

Directions: "I'm going to say a word and ask you to tell me the beginning or first sound of the word. Listen carefully."

Demonstration item: Say "cat". Then ask, "What's the beginning sound of cat?"

B2.1. Informal Phonological Awareness Test – Continued

Additional demonstration items: dog
mouse

1. bite (b)
2. toy (t)
3. purple (p)
4. dinosaur (d)
5. fudge (f)

Final Position: **NM** **E** **M**

Directions: "I'm going to say a word and ask you to tell me the ending or last sound of the word. Listen carefully."

Demonstration item: Say "cat". Then ask, "What's the ending sound of cat?"

Additional demonstration items: duck
fish

1. bug /g/
2. house /s/
3. rat /t/
4, bush /sh/
5. math /th/

Medial Position: **NM** **E** **M**

Directions: "I'm going to say a word and ask you to tell me the middle sound of the word. Listen carefully."

Demonstration item: Say "cat". Then ask, "What's the middle sound of "cat"?"

Additional demonstration items: feet
game

1. cup (u)
2. mouse (ou)
3. and (n)
4. nip (i)
5. boil (oi)

B2.1. Informal Phonological Awareness Test – Continued

BLENDING PHONEMES: **NM** **E** **M**

Directions: "I'll say the sounds of a word. You guess what word it is. Listen carefully."

Demonstration item: Say these sounds with a very short pause between them "/i/…/t/. What word did I say?"

Additional demonstration items: /u/…/p/ (up)
/p/…/o/…/p/ (pop)

Say each word slowly by phoneme as indicated.

1. b – oy (boy)
2. s – i – t (sit)
3. t – ai – l (tail)
4. f – l – a – g (flag)
5. k – i – n – d (kind)

SEGMENTING PHONEMES: **NM** **E** **M**

Directions: "I'm going to say a word and I want you to say each sound in the word. Listen carefully."

Demonstration item: Say "cat". Then say the individual sounds, pausing slightly between each one. "/c/…/a/…/t/".

Additional demonstration items: up
pig

1. at (a – t)
2. game (g – a – m)
3. keep (k – e – p)
4. mist (m – i – s – t)
5. smoke (s – m – o – k)

From *The Neuropsychology of Reading Disorders: Diagnosis and Intervention Workbook* (pp. 91-94) by S. G. Feifer, & P. De Fina, 2000, Maryland: School Neuropsych Press. Reprinted with permission.

B2.2. Test of Auditory Analysis

Materials Needed: List of items to be administered to the child.

Directions:

PRACTICE:
Let's play a word game.

Say COWBOY (allow child to respond). Now say it again, but don't say BOY.

If correct:

That's right, let's try the next one.

If incorrect:

That's not quite right. COWBOY without saying BOY is COW. (Explain it to the child. If the child requires more than a simple explanation, stop testing.)

SECOND PRACTICE ITEM:
Say STEAMBOAT (wait for response). Now say it again, but don't say STEAM.

If the child answers both demonstration items correctly, start the test with Item 1. If he/she does not answer both demonstration items correctly, do not administer any more items.

ADMINISTRATION NOTES:
Do not give hints with your lips. Speak distinctly, but do not stress any particular sounds. In other words, do not give any additional information that might make the task easier. You want the child to do well, but not at the expense of looking better on the test than is really the case.

Remember, when you get to the items that ask the child to "Say the word, but don't say /k/ (a single sound)" you are to say the sound of the letter, not the letter name.

Stop testing after two successive errors–two incorrect responses in a row–and record the number of the last correct item before those two errors. This is his/her score. For example, if the child is correct on items 1, 2, 3, 4, and 5, and incorrect on items 6 and 7, his/her score would be 5. If he/she was correct on 1, 2, 3, incorrect on 4, correct on 5 and 6, then incorrect on 7 and 8, his/her score would be 6.

INTERPRETING THE RESULTS:
The following expected scores were not based on a formal norming procedure, but rather on the author's experience in administering the task to children of various ages. Although they can be used as an initial guide to expected performance at various age levels, the test will be most accurately used to identify children with delays in phonological awareness if this information is supplemented with local norms.

Expected scores: Kindergarten 1-3
1st Grade 4-9
2nd Grade 10-13

B2.2. Test of Auditory Analysis – Continued

TEST ITEMS:	Answer
1. Say SUNSHINE. Now say it again, but don't say SHINE.	SUN _____
2. Say PICNIC. Now say it again, but don't say PIC.	NIC _____
3. Say CUCUMBER. Now say it again, but don't say CU (q).	CUMBER _____
4. Say COAT. Now say it again, but don't say /*k*/.	OAT _____
5. Say MEAT. Now say it again, but don't say /*m*/.	EAT _____
6. Say TAKE. Now say it again, but don't say /*t*/.	ACHE _____
7. Say GAME. Now say it again, but don't say /*m*/.	GAY _____
8. Say WROTE. Now say it again, but don't say /*t*/.	ROW _____
9. Say PLEASE. Now say it again, but don't say /*z*/.	PLEA _____
10. Say CLAP. Now say it again, but don't say /*k*/.	LAP _____
11. Say PLAY. Now say it again, but don't say /*p*/.	LAY _____
12. Say STALE. Now say it again, but don't say /*t*/.	SALE _____
13. Say SMACK. Now say it again, but don't say /*m*/.	SACK _____

Last item before two errors in a row _____

From *Helping Children Overcome Learning Difficulties* (pp.98-99) by J. Rosner, 1975, New York: Walker and Company. Reprinted with permission.

B2.3. Phonemic Awareness: Sample Diagnostic Assessment Form

Directions: Give the child an example of each task before proceeding with a new category. You may need to give two examples with some children. Accept all responses. Do not proceed to the next category if a child cannot answer any of the items correctly in the category that preceded it. Place a check in the corresponding column for each item the child answers correctly.

Child's Name: _____

Awareness of Rhyme	**Date**	**Date**	**Date**
(Say "yes" if these two words rhyme. Say "no" if they don't.)			
1. cat fat	1.		
2. bike hike	2.		
3. go door	3.		
4. come run	4.		
5. candle handle	5.		
6. man moon	6.		
(Tell me a word that rhymes with …)			
1. hat	1.		
2. cake	2.		
3. pet	3.		
4. jump	4.		
5. kitten	5.		
Awareness of Alliteration			
(Say "yes" if these words start with the same sound. Say "no" if they don't.)			
1. big balloon	1.		
2. come colour	2.		
3. funny morning	3.		
(I'll say a word and you tell me one that starts with the same sound.)			
1. dog	1.		
2. silly	2.		
3. huge	3.		
Ability to Blend and Segment Words			
(I'm going to say some words in a special way by stretching out the sounds. Put the sounds together and tell me what word they make.)			
1. p..i..n	1.		
2. j..o..b	2.		
3. s..a..t	3.		
4. sh…oe	4.		
5. th..a..t	5.		
(I'll say a word and you tell me the sounds you hear in it. You stretch the word into its sounds.)			
1. keep	1.		
2. red	2.		
3. bump	3.		
4. snow	4.		
5. frost	5.		

From *Early Literacy: A Resource for Teachers* (p.77) by Saskatchewan Learning, 2000, Regina, SK: Author.

B3 Recommendations for Teaching Phonemic Awareness Skills

The following suggestions are provided to assist teachers when teaching phonemic awareness skills.

- It is critical to identify children early who are at risk for reading difficulties so that preventative work can begin as soon as possible.
- Some students will need instruction at the emergent levels (rhyming, segmenting, and blending) to the more complex levels (substituting and deleting sounds). Create "mini" lessons to meet the needs of students in your class.
- Segmentation or blending tasks are easier with continuant phonemes (e.g., /s/, /sh/, /l/) than with noncontinuant-stop phonemes (e.g., /p/, /b/, /t/).
- Phonemic awareness activities have a greater impact on reading success when combined with instruction in letter-sound correspondence.
- Not all students will acquire skills at the same rate. Intervention for a certain skill needs to be as long as necessary to support a student's acquisition of the skill.
- When multiple tasks in phonemic awareness are the objective, teach one or two until each is mastered before moving to the next.
- Teach phonemic awareness in a small group setting.
- Teach students an average of 15 to 20 minutes per day.
- Some struggling readers will need to have intensified intervention in phonemic awareness if they have not developed this ability.
- The relationship between learning about phonemes and developing decoding skills is reciprocal.
- When teaching individual phonemes, orally model the sound and draw attention to how the sound is produced in the mouth. For example, ask the child how did the sound feel? Did your vocal chords vibrate? Did air come out of your mouth? What did your tongue and lips do?
- When students segment sounds in words, they can represent the sounds with something concrete (blocks), visual cues (holding up fingers), kinesthetic cues (jumping), or auditory cues (clapping). Using a multi-sensory approach improves children's ability to segment.
- Phonemic awareness skills can be taught and enhanced through natural language development. Create spontaneous games and activities by using, songs, nursery rhymes, poems, and stories.
- Ericson and Juliebo (1998) reported that kindergarten children instructed in both segmenting and blending skills performed significantly better on all tests of sound association and word recognition than children taught in phoneme analysis (segmenting) alone.

Adapted from National Institute of Child Health and Human Development (2000); Reithaug (2002).

B4 Phonemic Awareness Activities to Get You Started

Many phonemic awareness programs and activities are available on the market. The following suggestions are provided as examples of ways to develop each skill area.

Isolating and Categorizing Phonemes:

- **Use the analogy of a train**
  Draw three connecting boxes: an engine, a passenger car, and a caboose. Explain that a word has beginning, middle, and ending sounds, just like a train. Slowly articulate a consonant-vowel consonant word (e.g., /p/…/i/…/g/) and point to the box corresponding to the position of each sound in the word. Repeat the word and have students identify where they hear the different sounds (e.g., Where do you hear the /g/ in pig?).

From *Orchestrating Success in Reading* (p.149) by D. Reithaug, 2000. West Vancouver, BC: Stirling Head Enterprises. Reprinted with permission.

- **Listening for Phonemes in Mixed Word Positions – A Song Game Script:**

  I am going to sing you a song and your job will be to listen to the words that I say and do the action that I ask you to do. Only do the action if the word that I say has the sound I am looking for.

  The students will need lots of room to move around for this activity. Sing the lines below to the first verse of "Lou Lou Skip To My Lou". At the end of the verse say the target word slowly. Once the students become familiar with this verse, they can sing along with you. One complete example is provided below:

  Clap if you hear an /i/ in this word,
  Clap if you hear an /i/ in this word,
  Clap if you hear an /i/ in this word,
  Clap if you hear the /i/ sound! – trick.

1. Skip if you hear a /p/ in this word – drop.
2. Whistle if you hear a /j/ in this word – grow.
3. Dance if you hear an /a/ in this word – class.
4. Spin if you hear a /z/ in this word – easy.
5. Bend if you hear a /m/ in this word – turn.
6. Jump if you hear an /o/ in this word – octopus.
7. Twirl if you hear a /g/ in this word – brag.
8. Hop if you hear a /l/ in this word – ball.
9. Laugh if you hear an /u/ in this word – lucky.
10. Cry if you hear a /s/ in this word – zero.
11. Sing if you hear a /v/ in this word – curve.
12. Chirp if you hear an /e/ in this word – spend.
13. Growl if you hear /w/ in this word – winter.
14. Bark if you hear a /sh/ in this word – plus.
15. Snore if you hear an /a/ in this word – plate.
16. Turn if you hear a /th/ in this word – jar.

17. Howl if you hear a /ch/ in this word – jar.
18. Sit if you hear an /i/ in this word – kite.
19. Stand if you hear a /k/ in this word – camera.
20. Shiver if you hear a /d/ in this word – bread.
21. Meow if you hear an /o/ in this word – job.
22. Moo if you hear a /f/ in this word – stuff.
23. Oink if you hear a /h/ in this word – happy.
24. Snort if you hear a /v/ in this word – wind.
25. Run if you hear an /e/ in this word – sneeze.

From *A Resource Manual for Teaching Phonemic Awareness Skills in the Early Grades* (pp.187-188) by B. Elliott, 1996, Saskatoon, SK: Author. Reprinted with permission.

Activities for Segmenting:

- **Hello Song**
  Sing a "Hello Song" to the children in the class and say each child's name. As you sing, emphasize each syllable in a word. For example, "Hello, Max", "Hello, Jessie, "Hello, Benjamen". The children can clap along as they sing the song with the teacher. This is a good way for children in kindergarten to learn the names of their classmates and segment syllables in words.

- **Tangible Items**
  Give students tangible items such as coloured felts, poker chips, popsicle sticks, buttons, or tiles to represent syllables in a word. The teacher says a word and the children move the tangible item forward on their desk to represent the number of beats or syllables they hear in a word.

- **Use a Tapping Wand**
  Have a student practise tapping the syllables with special tapping wands. Start by using compound words and gradually introduce two, three, and four syllable words. Use the phrase: How many sounds can you tap in the word _____?

1 Syllable Words	**2 Syllable Words**
hat	baby
dog	jolly
run	apple
chair	falling
phone	surprise

3 Syllable Words	**4 Syllable Words**
dinosaur	watermelon
kangaroo	kindergarten
elephant	alligator
crocodile	calculator
computer	information

Activities for Blending Sounds

- **Use Puppet Play**

  Use a puppet who speaks funny by saying words syllable-by-syllable or sound-by-sound. Students guess the word.

  Say: "The puppet likes to say words in pieces. Can you help him put the word together?"

From *Orchestrating Success in Reading* (p.152) by D. Reithaug (2002). West Vancouver, BC: Stirling Head Enterprises. Reprinted with permission.

Activity for Manipulating Sounds

- **A Word Changing Game**

  Script:
  We're going to pretend that our names and other words have different sounds at the beginning. Megan, if your name started with /r/ instead of /m/, what would it be? Right–your name would be Regan. Now let's change some other people's names.

  Provide the students with a phoneme substitution for the first sound in their first name. If their name starts with a vowel, give them a vowel substitution. If it starts with a single consonant, give them a single consonant substitution. If starts with a blend, give them a consonant substitution for the first sound only (e.g., Brittany should be changed to Grittany or Frittany). Do not expect the students to change the entire blend with a different blend.

  After the students each complete a phoneme substitution for their own name, ask them to make a phoneme substitution for a classmate's name. Once this round is completed, provide them each with an initial phoneme substitution for their last name. You may also provide initial phoneme substitutions for parents' names, pets' names, brothers' and sisters' names, the principal's name, etc.

  Now we're going to pretend that some other things have different sounds at the beginning. Let's see what these things would be called if we changed their beginning sound. (Have the class complete the first several items in unison; then ask individual students to substitute the initial phonemes for the remaining words.)

  1. If giraffe started with /z/ instead of /j/, what would it be called?
  2. If banana started with /g/ instead of /b/, what would it be called?
  3. If drum started with /p/ instead of /d/, what would it be called?
  4. If cantaloupe started with /s/ instead of /k/, what would it be called?
  5. If ox started with /i/ instead of /o/, what would it be called?
  6. If watermelon started with /l/ instead of /w/, what would it be called?
  7. If raisin started with /ch/ instead of /r/, what would it be called?
  8. If garage started with /f/ instead of /g/, what would it be called?

From *A Resource Manual for Teaching Phonemic Awareness Skills in the Early Grades* (pp.314-315) by B. Elliott, 1996, Saskatoon, SK: Author. Reprinted with permission.

B5 Resources for Teaching Phonemic Awareness Skills

To support students' achievement, it is important that teachers familiarize themselves with the respective curricula for the areas of study they teach. *Early Literacy: A Resource for Teachers* and the English language arts curricula developed by Saskatchewan Learning provide learning objectives, instructional and assessment strategies, and activities.

In addition, the following resources may be helpful in supporting student development related to phonemic awareness.

B5.1. Programs to Supplement Regular Classroom Instruction

The following resource was used to help develop the list of programs: *A Basic Guide to Understanding, Assessing, and Teaching Phonological Awareness*, by J. Torgesen, J. and P. Mathes, 2000, Austin, TX: PRO-ED.

- **Ladders to Literacy** (O'Connor, Notari-Syverson, & Vadasy, 1998)

  Instructional Level: Kindergarten

  Instructional Tasks:
  - Perception and Memory for Sounds and Words
  - Word Awareness
  - Rhyming
  - Alliteration
  - Blending
  - Segmentation

  General Comments:
  - Integrates print knowledge with phonemic awareness.
  - Includes a checklist of emergent literacy skills.
  - Includes methods for teaching children who learn at different rates.
  - Materials for activities are not included but could be easily found in classrooms.

  Ordering Information:
  Brookes Publishing Company (1-800-638-3775)

- **Reading Reflex: The Foolproof Phono-Graphix Method for Teaching Your Child to Read** (McGuinness, C. & McGuiness, G., 1998)

  Instructional Level: Elementary school aged children

  Instructional Tasks:
  - Letters are visual representations of sounds
  - Rhyming
  - Blending
  - Segmenting
  - Phonics (Basic and Advanced)
  - Multi-syllable word analysis

General Comments:
- Includes picture card materials
- Includes screening tests (blending, segmentation, phonics)

Ordering Information:
Simon & Schuster Publishing Company (1-800-374-1200)

- ❑ **Phonemic Awareness in Young Children**
(Adams, Foorman, Lundberb, & Beeler, 1997)

Instructional Level: Kindergarten to Grade One

Instructional Tasks:
- Listening Games
- Rhyming Activities
- Blending
- Segmenting
- Initial/Final Phonemes
- Substitution
- Phonics

General Comments:
- Sequence of game-like activities.
- Includes most materials (others needed can be easily found in classroom).
- Includes phonological awareness tests to monitor progress.
- Includes a list of rhyming and alliteration books.

Ordering Information:
Brookes Publishing Company (1-800-638-3775)

- ❑ **Sounds Abound Program: Teaching Phonological Awareness in the Classroom** (Lenchner & Podhajski, 1997)

Instructional Level: Kindergarten to Grade One

Instructional Tasks:
- Rhyming
- Blending
- Segmenting
- Deletion
- Substitution
- Matching letters to first sounds in words

General Comments:
- Materials are included with program.
- The majority of activities involve singing or music.
- Comes with videotape that demonstrates many of the activities.

Ordering Information:
LinguiSystems (1-800-776-4332)

- **Sounds Abound Instructional Materials and Game**
  (Catts & Vartiainen, 1993)

  Instructional Level: Kindergarten and Grade One

  Instructional Tasks:
  - Rhyming
  - Beginning and Ending Phonemes
  - Segmenting
  - Blending
  - Substitution
  - Deletion
  - Matching letters and sounds (seven consonants and five vowels)

  General Comments:
  - Materials included.
  - The game is purchased separately from the materials.
  - Includes phonemic awareness tests to assess growth.

  Ordering Information:
  LinguiSystems (1-800-776-4332)

- **Orchestrating Success in Reading** (Reithaug, 2002)

  Instructional Level: School aged children.

  Instructional Tasks:
  - All levels of phonemic awareness
  - Phonics
  - Vocabulary Development
  - Reading Fluency
  - Reading Comprehension Strategies

  General Comments:
  - A wide variety of interventions and activities.
  - Many reproducible pages for classroom use.

  Ordering Information:
  Stirling Head Enterprises (1-604-926-4714)
  E-mail dreithaug@shaw.ca

- **Animated Literacy** (Stone, 2002)

  Instructional Level: Kindergarten to Grade Three

  Instructional Tasks:
  - Comprehensive list of phonemic awareness skills
  - Phonics
  - Reading

General Comments:
- Utilizes a multi-sensory approach incorporating music, art, and movement to teach phonemic awareness, phonics, word knowledge, fluency, and comprehension.
- Program includes handbooks; tapes; CDs; song and action books; pattern books of reading, writing, and singing activities; alphabet card flash cards for sound and letter substitution activities; and manipulatives.

Ordering Information:
E-mail jstoneal@yahoo.com

- ❑ **Sourcebook of Phonological Awareness Activities Volume II**
  Children's Core Literature (Goldsworthy, 2001)

  Instructional Level: Preschool through Grade Three

  Instructional Tasks:
  - All levels of phonemic awareness skills

  General Comments:
  - Provides activities linked to children's literature (*Blueberries for Sal, Corduroy, Happy Birthday, Moon, Harry and the Terrible Whatzit, Harry the Dirty Dog, Stone Soup, The Hungry Thing, The Little Red Hen, The Three Little Pigs, The Snowy Day, and The Very Hungry Caterpillar*).

  Ordering Information:
  Singular Publishing Group (1-800-521-8545)

B5.2. Programs for Small Group or Individualized Training

- ❑ **Launch into Reading Success Through Phonological Awareness Training**
  (Bennett & Ottley, 1996)

  Instructional Level: Kindergarten children who are at-risk for reading failure.

  Instructional Tasks:
  - Syllabification
  - Rhyming
  - Onset and Rime
  - Segmenting
  - Blending
  - Substitution
  - Pronunciation for voiced and unvoiced consonant pairs (multisensory)
  - Matching letters to phonemes

  General Comments:
  - Moves through sequences in small steps.
  - Strong emphasis on how sounds are represented in print.
  - Includes laminated game boards.
  - Highly scripted; can be led by educational assistants or volunteers and supervised by teacher.
  - Limitation is that students are taught to segment prior to comparing words based on initial and final phonemes.

Ordering Information:
PRO-ED Publishing Company (1-800-897-3202)

- **The Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech** (LIPS) (Lindamood, & Lindamood, 1998)

  Instructional Level: Children at-risk for reading failure.

  Instructional Tasks:
  - Auditory Discrimination
  - Phoneme Articulation
  - Blending
  - Segmenting
  - Syllabification
  - Deletion
  - Substitution
  - Phonics
  - Reading and spelling multi-syllable words

  General Comments:
  - This program was formerly known as Auditory Discrimination in Depth (ADD).
  - Program for children who are severely at risk for learning phonemic awareness and phonics skills.
  - Designed to access the oral-motor, visual, and auditory feedback systems in order to assist students in developing and integrating phonemic awareness skills.
  - Speech sounds have been categorized on the basis of the shape as well as the position of the lips, teeth, and tongue.
  - Complex program that requires at least 40 hours of training in order to use it.
  - Typical length of treatment ranges between 80 and 160 hours.

  Ordering Information:
  - PRO-ED Publishing Company (1-800-897-3202)
  - Lindamood Learning (1-800-234-6224)

- **Phonological Awareness Training for Reading** (Torgesen & Bryant, 1993)

  Instructional Level: Young children who are mildly to moderately at risk for reading failure.

  Instructional Tasks:
  - Onset/rime blending
  - Phoneme blending
  - Segmentation of initial phoneme
  - Matching words on basis of first, last, and middle sounds
  - Identifying the positions of phonemes within word
  - Substitutions
  - Letter-sound correspondences
  - Phonics

General Comments:
- All materials are included in kit.
- Highly scripted text.
- Strong transition into using letters to represent sounds.
- No special training required.

Ordering Information:
- PRO-ED Publishing Company (1-800-897-3202)

❑ **Road to the Code: A Phonological Awareness Program for Young Children**
(Blachman, Ball, Black, & Tangel, 1999)

Instructional Level: Kindergarten and Grade One children who are at risk for reading failure.

Instructional Tasks:
- Rhyming
- Blending
- Segmenting
- Phonics

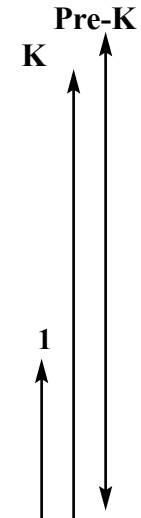
General Comments:
- Transition between oral language phonemic awareness activities and the use of letters to read and spell words.
- With some modification, activities could be adapted to use with older students who are struggling with phonics.

Ordering Information:
- Brookes Publishing Company (1-800-638-3775)

Appendix C

Phonics

C1 Suggested Instructional Sequence for Phonemic Awareness and Graphophonics



Aural/Oral and Visual Discrimination Abilities

Focus on Environmental Sounds
Example: Sound Walks

Sound/Listening Games
Example: What's My Pattern?

Focus on Shapes and Patterns in Environment

Visual Discrimination Activities
Examples: Name recognition activities, concept of letter/word activities

Games
Examples: Memory, Lotto (versions for young children)

Phonemic Awareness

Language Play Activities
Rhyming
Alliteration
Songs, chants, etc.

Segmenting and Blending Activities
Count the words
Clap the syllables
Segmenting compound words
Segmenting and blending syllables
Segmenting and blending phonemes

Initial and Final Consonant Deletion
Examples: Say *jeep*. Say it again without the *j*.
Say *jeep*. Say it again without the *p*.

Letter Recognition

Letter Discrimination/Forming Activities
Examples: Guess my Letter
ABC Centre

Graphophonic Activities

Initial Consonants related to One Sound
**** (b, f, h, j, k, d, l, m, p, r, t, n, v, w, y, z)***

Initial Consonants related to Multiple Sounds *(s, c, g, q, x)*
Y as a vowel
Final Consonants
Word Families (onsets and rimes)

Short Vowels
Consonant Blends
Consonant Digraphs
*Medial Consonants (*the *t* sound in *kitten)*
Long Vowels
r Controlled Vowels (ar, er, ir, or ,ur)
Vowel Diagraphs (oo, ew, au, aw, oi, oy, ou, ow)
Other Vowel Patterns (all, ough, augh)

Structural Analysis

s Ending

es, ing, er, ed, est Endings

Compound words
Possessives ('s)
Contractions

* Experienced teachers suggest that *b, d*, and *p*, and *m* and *n* should not be taught together.

From *Early Literacy: A Resource for Teachers* (p.75) by Saskatchewan Learning, 2000, Regina, SK: Author.

C2 Assessment of Phonics Skills

The first step in phonics instruction is the identification and naming of the alphabet. Students then need to connect the letters with particular sounds. The following assessment tool can be used to quickly identify whether students have an understanding of the alphabetic principle and if they are able to print the letters.

When administering the letter identification, naming, and sound/symbol relationship portion of the test, give the student a copy of the alphabet, which is provided. When the child is required to print individual letters, remove the copy of the alphabet. You can begin with either the upper or lower case letters. Position yourself so that the child is unable to view you scoring him or her.

Please refer to the *Early Literacy: A Resource for Teachers* and the *English Language Arts Curriculum Guide for the Elementary Level (K-5)* for assessment tools, teaching guidelines, and strategies. Both documents are available on line at http://www.sasked.gov.sk.ca/docs.

C2.1. Letter: Identification/Naming/Sound/Formation

Uppercase

Name:_____

	Date		Date		Date		Date	
	Letter Identification	Letter Naming	Letter Formation	Letter Sound	Letter Identification	Letter Naming	Letter Formation	Letter Sound
F								
Z								
U								
V								
N								
R								
S								
D								
K								
X								
T								
B								
Y								
I								
M								
O								
J								
G								
W								
P								
C								
A								
E								
L								
H								
Q								
Total								

Letter Identification: Ask the student to point to the letter you name.
Letter Naming: Ask the student to tell you the names of the letters you point to.
Letter Formation: Ask the student to print the letter you name.
Letter Sound: Ask the student to tell you the sound of the letter you name.

Adapted from Mather & Goldstein (2001) and Saskatchewan Learning (2000c).

C2.1. Letter: Identification/Naming/Sound/Formation

Lowercase

Name:_____

	Date		Date		Date		Date	
	Letter Identification	Letter Naming	Letter Formation	Letter Sound	Letter Identification	Letter Naming	Letter Formation	Letter Sound
d								
k								
u								
o								
r								
v								
q								
n								
t								
s								
x								
z								
y								
i								
m								
g								
e								
b								
j								
p								
a								
c								
w								
f								
l								
h								
Total								

Letter Identification: Ask the student to point to the letter you name.
Letter Naming: Ask the student to tell you the names of the letters you point to.
Letter Formation: Ask the student to print the letter you name.
Letter Sound: Ask the student to tell you the sound of the letter you name.

Adapted from Mather & Goldstein (2001) and Saskatchewan Learning (2000c).

F Z U V N R S D K

X T B Y I M O J G

W P C A E L H Q

d k u o r v q n t

s x z y i m g e

b **j** p a c w f l h

C2.2. Phonics Rules and Common Spelling Patterns

Name: _____ Date: _____ Grade: _____

Phonics Rules and Common Spelling Patterns
Check the student's knowledge of the spelling pattern presented both alone and then in a pseudo-word. After the consonant digraph section, only single consonant sounds are used in the pseudo-word lists in order to simplify the decoding process.

Consonant Digraphs:

1. sh_____ shim_____(as in "him")
2. th_____ thap_____(as in "rap")
3. wh_____ wheg_____(as in "beg")
4. ch_____ chot_____(as in "hot")
5. ng_____ bung_____(as in "sung")

Vowel Digraphs:

6. ee_____ leem_____(as in "seem")
7. ea_____ beal_____(as in "deal")
8. oa_____ soat_____(as in "boat")
9. ai_____ fait_____(as in "wait")
10. oo_____ jook_____(correct if produced as "book" or as "room")

R-Controlled Vowels:

11. ar_____ zark_____(as in "dark")
12. er_____ ner_____(as in "her")
13. ir_____ mird_____(as in "bird")
14. or_____ sorn_____(as in "horn")
15. ur_____ lurt_____(as in "hurt"

C2.2. Phonics Rules and Common Spelling Patterns – Continued

Vowel Diphthongs:

16. ou_____ boun_____(as in "bound")

17. oi_____ doil_____(as in "soil")

18. ow_____ fow_____(correct if produced as "cow" or as "grow")

19. oy_____ goy_____(as in "boy")

Long Vowel Silent "e":

tafe_____(as in "safe")

depe_____(as in "deep")

vide_____(as in "wide")

rome_____(as in "home")

sune_____(as in "tune")

Other Long Vowel Patterns:

25. ay_____ vay_____(as in "way")

26. y_____ ny_____(as in "my")

27. ie_____ jie_____(as in "pie")

28. igh_____ figh_____(as in "high")

29. ight_____ dight_____(as in "night")

30. aight_____ baight_____(as in "straight")

Two-Syllable Patterns:

31. –tion_____ botion_____(as in "lotion")

32. –sion_____ tansion_____(as in "mansion")

33. –gion_____ fegion_____(as in "legion")

34. –tious_____ mectious_____(as in "infectious")

35. –cious_____ ficious_____(as in "delicious")

C2.2. Phonics Rules and Common Spelling Patterns – Continued

36. –cial_____ kecial_____(as in "special")

37. –ive_____ gotive_____(as in "motive")

38. –le_____ dable_____(as in "table")

Other Patterns:

39. –ck_____ leck_____(as in "neck")

40. –aw_____ baw_____(as in "saw")

41. –ew_____ lew_____(as in "grew")

42. –ough_____ mough_____(correct if produced as "rough" or as "though")

43. –nce_____ sence_____(as in "sentence")

44. –ought_____ lought_____(as in "fought")

45. – aught_____ waught_____(as in "taught")

Consonant Doubling Rule:

For these words, note if the student recognizes that when single consonants follow a vowel in a two-syllable word, the vowel is produced as a long vowel sound. Consonant doubling requires that the word be decoded with a short vowel sound.

46. taby_____(as in "baby") 47. tabby_____(as in "crabby")

48. razy_____(as in "crazy") 49. razzy_____(as in "snazzy")

50. piny_____(as in "tiny") 51. pinny_____(as in "skinny")

52. loping_____(as in "hoping") 53. lopping_____(as in "hopping")

54. hable_____(as in "table") 55. habble_____(as in "babble")

56. jiting_____(as in "biting") 57. jitting_____(as in "hitting")

58. sater_____(as in "later") 59. satter_____(as in "matter")

From *A Resource Manual for Teaching Phonemic Awareness Skills in the Early Grades* by B. Elliott, 1996, Saskatoon, SK: Author. Reprinted with permission.

C3 Recommendations for Teaching Phonics Skills

The following suggestions are provided to assist teachers when teaching phonemic skills.

- Because phonemic awareness skills are prerequisites for phonics instruction, be sure to assess students' understanding in this area prior to beginning phonics instruction.
- To determine where to begin instruction in phonics, assess students' knowledge base.
- Teach sound-symbol links directly, systematically, explicitly, and sequentially.
- Some students will require more intervention than others. Be prepared to individualize a student's program, as not all students will acquire skills at the same rate.
- Memorizing phonics rules does not ensure students know how to apply the rules. Model and practise the skills in a variety of ways.
- Children are better able to remember the letter-sound relations if mnemonics are used. For example, draw the letters to assume the shape of a familiar object such as a snake for the letter "s" or a house for the letter "h".
- Incorporate interesting characters or hand motions into activities and games to teach letter-sound relations. Children are more motivated to learn the grapheme-phoneme relationship if it is presented in a fun and exciting manner.
- Emphasize active, vocal responses from students.
- Promote the integration of skills into context. Generalization of the rules and skills will assist students in implementing them independently.
- Begin teaching phonics to children before the end of grade one.
- Teach phonics using onsets and rimes.

  Onset refers to all the letters in a word before the vowel (e.g., "b" in "bat" or "bl" in "black").

  Rime refers to the vowel and letters that follow after the consonant or consonant blend (e.g., "at" in "bat" or "ack" in "black").

Adapted from Moats (1998); National Institute of Child Health and Human Development (2000); Reithaug (2002); Strickland (1998).

C4 Phonics Activities to Get You Started

Morning Message

Have the morning message written on the board. As you read through it with the students, have them help you fill in the missing letters.

> Goo_ orning _ _s an_ irl_.
> _ ow are you tod_ _?
>
> _oday is _ay 8, 2003.
> I_ is _unny outs_de.

C5 Resources for Teaching Phonics Skills

To support students' achievement, it is important that teachers familiarize themselves with the respective curricula for the areas of study they teach. Please refer to *Early Literacy: A Resource for Teachers* and English language arts curricula for details of teaching guidelines and strategies.

The National Institute of Child Health and Human Development (2000) evaluated many resources for their effectiveness. Findings of the meta-analysis concluded that systematic phonics instruction produced gains in reading and spelling not only in Kindergarten and Grade One but also in Grades Two to Six. Reportedly, systematic phonics approaches are significantly more effective than non-phonics approaches in promoting substantial growth in reading.

For a complete review of types of programs and their effectiveness, please refer to the *Report of the National Reading Panel: Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction*, The National Institute of Child Health and Human Development, 2000. This document is available on line at http://www.nichd.nih.gov/publications/nrp/smallbook.htm

C5.1. Other Resources

Lindamood, C. H. & Lindamood, P. C. (1998). *Phoneme sequencing program (LIPS) for reading, spelling and speech.* Austin, TX: PRO-ED.

McGuinness, C. & McGuinness, G. (1998). *Reading reflex: The fool proof phono-graphix method for teaching your child to read.* New York, NY: Fireside.

Pinnell, G. S. & Fountas, I. C. (1998). *Word matters: Teaching phonics and spelling in the reading/writing classroom.* Portsmouth, NH: Heinemann.

Reithaug, D. (2000). *Orchestrating success in reading.* West Vancouver, BC: Stirling Head Enterprises.

Appendix D

Vocabulary Development

VOCABULARY DEVELOPMENT

Oral and written vocabulary development is very important in the process of reading. Word knowledge increases a student's ability to comprehend what she/he reads. Many students in classrooms today require specific instruction in order to develop their vocabularies. If students are engaged in a wide variety of conversations, their oral vocabulary will increase, which in turn will enhance their written vocabulary. Thus, vocabulary development is directly linked to receptive and expressive language development. This is the first step in enhancing one's word knowledge. Improvement in listening and speaking skills will ultimately increase vocabulary development.

D1 Assessment of Vocabulary:

Use "quickwriting" to help determine students' knowledge of particular vocabulary.

- Prior to students reading the required material, ask them to think about certain words from the text and write a definition based on their prior knowledge, associations, and understandings of the word.
- Give them two minutes to explore the meaning of the word by writing whatever thoughts come to mind.
- Ask some of the students to share their quickwrites.
- After the students have shared their knowledge and understandings, lead the students in a pre-reading discussion on what the words mean.

D2 Recommendations for Vocabulary Instruction

The following suggestions are provided to assist teachers when teaching vocabulary skills.

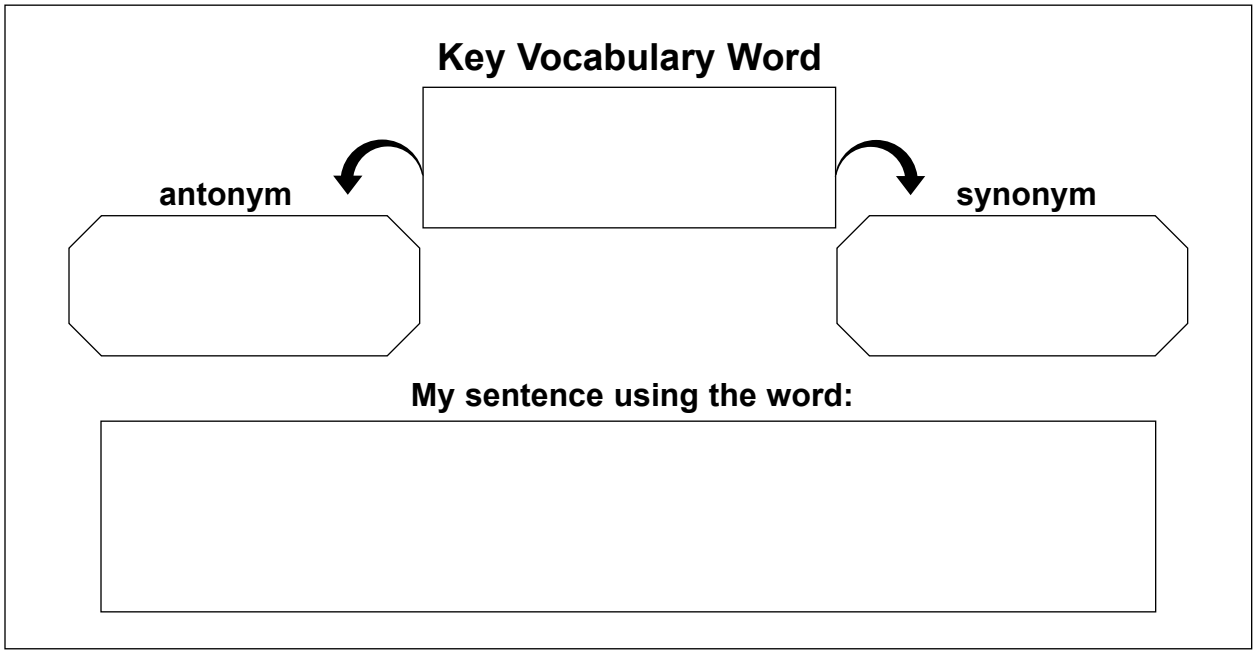
- One of the best ways to increase word knowledge is to read often to students of all ages. Students are never too old to enjoy good literature read to them. For many adults, this is a fond memory of school days. Teachers are encouraged to share literature with students on a daily basis.
- Reading to students gives teachers the opportunity to elaborate on new vocabulary to create a deeper understanding of words.
- Read aloud to students from material above their grade level to help compensate for the gap that occurs between good and poor readers.
- Engage students in oral discussions on a wide variety of topics.
- Create scenarios that allow students to practise using new vocabulary.
- Teach students the meaning of new words through semantic mapping (categorization with other known words).
- Instruction should emphasize the relationships among words.
- Provide practice comparing word meanings, categorizing, and using words actively.
- Encourage students to read a wide range of materials.
- Students need multiple exposures to words in authentic contexts. Repetition is essential.
- Pre-teach vocabulary words prior to reading.
- Teach vocabulary in content areas so students are better equipped to gain meaning in content areas.
- Teach students to highlight new vocabulary.
- Teach students how to use a dictionary as soon as they are able to read guide words.
- Teach students the meanings of prefixes and suffixes.
- Teach students common root words. Latin and Greek roots are often the basis for words in content areas such as science.

Adapted from Alberta Education (1996); Moats (1998); National Institute of Child Health and Human Development (2000); Reithaug (2002).

Making Associations Between Words

Name: _____ **Grade:** _____ **Date:** _____

Topic: _____



- ❑ ***Immediately*** **read connected text that contains the new words.**

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D3 Resources for Teaching Vocabulary

To support students' achievement, it is important that teachers familiarize themselves with the respective curricula for the areas of study they teach. In addition, the following resources may be helpful in supporting students' vocabulary development.

Fry, E. G., Kress, J. E., & Fountoukidis, D. L. (1993). *The reading teacher's book of lists* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Johns, J. L., & Lenski, S. D. (2001). *Improving reading: Strategies and resources* (3rd ed.). Dubuque, IA: Kendall/Hunt Publishing.

Reithaug, D. (2002). *Orchestrating success in reading.* West Vancouver, BC: Stirling Head Enterprises.

Appendix E

Reading Fluency

E1 Phonics Skills

E2 High Frequency Words

E3 Recommendations for Teaching Reading Fluency

E4 Reading Fluency Activities to Get You Started

Reading Fluency

Reading fluency refers to a student's ability to read words quickly, accurately, and with appropriate phrasing and expression (Beers, 2003; National Institute of Child Health and Human Development, 2000; Reithaug, 2002). Fluent reading skills are based on well-developed phonics skills. Students need to be able to decode words rapidly and accurately. The ability to recognize words without conscious decoding is often referred to as "reading automaticity" (Beers, 2003). Students also need to be able to readily recognize sight words that occur frequently in print. Sight words refer to words that do not follow regular decoding rules (e.g., goes, does, said, how). Fluency depends upon well developed word recognition skills. However, word recognition skills do not guarantee fluency (National Institute of Child Health and Human Development, 2000). Some students will still require further instruction in what is referred to as repeated oral reading practice. This component of a reading fluency instructional program gives students the opportunity to practise reading a passage that is within their independent reading level (student can recognize 95% of the words in the text and comprehend 90% or more without assistance) (Beers, 2003). Repeated oral reading practice allows the student to focus on phrasing and expression.

When a student has limited reading fluency skills, valuable cognitive energy is used for decoding and is therefore not available to construct meaning (Beers, 2003; National Institute of Child Health and Human Development, 2000; Reithaug, 2002). Students who are experiencing difficulty with fluency to read quickly, accurately, and with appropriate expression require instruction in phonics; high frequency word recognition; and repeated oral readings.

E1 Phonics Skills

If students do not automatically recognize, understand, and utilize the basic components of phonics, their ability to read fluently is compromised. An important component of assessment and instruction for reading fluency is to review all the basic phonics skills. This may include:

- naming letters rapidly;
- identifying sounds represented by letters or groups of letters;
- blending sounds into words;
- recognizing syllables and blending them into words;
- identifying inflectional endings (e.g., -s, -ed, -ing), and their effect on roots (e.g., calls, called, calling);
- identifying prefixes (un-, re-, dis-);
- recognizing syllables in multisyllabic words;
- recognizing capital letters and understanding their use; and
- recognizing punctuation and understanding its meaning.

Adapted from Mather & Goldstein (2001); Reithaug (2002).

E2 High Frequency Words

Building students' sight vocabulary is critical in terms of attempting to increase reading fluency skills. The quicker students are able to identify words that are commonly used in English the more fluent their reading will become. According to Johns and Lenski (2001) there are 13 words that account for approximately 25% of the words in school texts. Fry, Kress, and Fountoukidis (2000) and Pinnell and Fountas (1998) have identified 100 words that account for approximately 50% of words found in textbooks. If students are able to instantly recognize high frequency words they will be able to read a large percentage of all the words they encounter in books, magazines, and newspapers.

Teachers are encouraged to use the following two assessment tools to glean information on a student's ability to read words that occur frequently in school texts.

E2.1 High-Frequency Words – Recording Sheet

Name: _____ Date: _____

Grade: _____ School: _____ Evaluator: _____

	Word	Response
1.	a	
2.	and	
3.	for	
4.	he	
5.	in	
6.	is	
7.	it	
8.	of	
9.	that	
10	the	
11.	to	
12.	was	
13.	you	

Total Correct: /13

From *Orchestrating Success in Reading* (pp.72-73) by D. Reithaug, 2002, West Vancouver, BC: Stirling Head Enterprises. Reprinted with permission.

E2.2 100 High-Frequency Words – Recording Sheet

Name: _____ Date: _____ Grade: ____ Evaluator:_____

a	about	after	all
an	and	are	as
at	be	been	but
by	call	can	come
could	day	did	do
down	each	find	first
for	from	get	go
had	has	have	he
her	him	his	how
I	if	into	in
is	it	its	just
like	long	look	made
make	many	more	may
more	my	no	not
now	of	on	one
or	other	out	over
people	said	see	she
so	some	than	that
the	their	them	then
there	these	they	this
time	to	two	up
use	very	was	water
way	we	were	what
when	where	who	will
with	would	you	your

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E2.3. Running Record of Miscues

Sample Running Record of Text Reading

In this sample excerpt from a running record, the teacher noted some of the following miscues:

- Repeats Words: Teacher draws a line along the repeated words and notes R.
- Misreads Words: Teacher writes the correct word with the misread word above it.
- Omits Words: Teacher writes the omitted word and circles it.
- Self-corrects: Teacher writes the word with SC above it.
- Student Asks Word: Teacher writes A above it.
- Teacher Tells Word: Teacher writes the word with T above it.
- Reads Word Correctly: Teacher makes a check mark on paper.
- Students Insert Word: Teacher makes a ^ mark on paper.

Student 1: "Jack knew he would not be able to run."

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ (correct)

Student 2: "Jack knew he would be able to run."

✓ ✓ ✓ ✓ ✓ (omission)

Student 3: "Jack knew that he would not be able to run."

✓ ✓ ^ ✓ ✓ ✓ ✓ ✓ ✓ ✓ (insertion)

Student 4: "Jack thought he would not be able to run."

✓ thought / knew ✓ ✓ ✓ ✓ ✓ ✓ ✓ (substitution)

Student 5: "Jack knew he would ...he would ...not be able to...to...to... run."

✓ ✓ ✓ ✓ R ✓ ✓ ✓ R R ✓ (repetition)

Student 6: "Jack k...now...knew he would not be able to run."

✓ k/now / knew ✓ ✓ ✓ ✓ ✓ ✓ ✓ (attempted)

Student 7: "Jack knew he will...would not be able to run."

✓ ✓ ✓ sc / would ✓ ✓ ✓ ✓ ✓ (self-correction)

Student 8: "Jack knew he [pause, teacher pronounces "would"] not be able to run."

✓ ✓ ✓ T / would ✓ ✓ ✓ ✓ ✓ (teacher pronounced)

Note: *Teachers could also write the type of error or error word on a grid such as the one on the following page.*

From *English Language Arts: A Curriculum Guide for the Elementary Level* (K-5) (p.148) by Saskatchewan Learning, 2002, Regina, SK: Author.

Sample Miscue Summary/Analysis

Text wording	Reader's wording	Type of miscue (substitution, omission, insertion, reversal, repetition)	Uses cues? (semantic, syntactic, graphophonic)	Self-correction? Yes/No	Meaning retained? Yes/No

Analysis of Miscues

1. Do the miscues retain meaning (semantics)?
2. Are the miscues syntactically correct?
3. Does the child use beginning, middle, and/or ending sounds (graphophonic)?

Reading Strategies used by the Student

1. Chunking (little words in big words)
2. Asks for help
3. Goes back to find word somewhere else
4. Thinks of another word that is similar
5. Sounds out words
6. Skips word/reads on/rereads sentence
7. Goes back to the beginning of the sentence
8. Other:_____

Reading Fluency

1. Word by word reading .....Reads in phrases
2. Too slow or too fast .....Appropriate pacing
3. No expression .....Appropriate expression
4. Not aware of punctuation .....Aware of punctuation
5. Poor sight word recognition .....Automatic sight word recognition

Reading Accuracy Rate

words read correctly = _____ =_____ % (Independent/
total number of words Instructional/Frustrational)

(based on Burton, 2000)

From *English Language Arts: A Curriculum Guide for the Elementary Level (K-5)* (p.149), by Saskatchewan Learning, 2002. Reprinted with permission.

Sample Running Record of Text Reading

Student's Name: _____ **Date:** _____

Title: _____ **Level:** _____

Page Read: _____

Type of Error or Error Word in First One Hundred Words

Type of Error or Error Word in Second One Hundred Words

Accuracy Rate	**Error Rate**
words read correctly / total number of words = _____ = _____	number of words / number of errors = _____ = 1:_____

Self-correction Rate: errors + self-corrections / self-corrections = _____ + _____ = _____ = 1:_____

Teachers should analyze the errors and self-corrections and then determine the instructional plans for the student based on the analysis.

Analysis of Errors and Self-corrections

1. Picture clues
2. Phonic clues
3. Syntactic (arrangement of words)
4. Reads on/does not reread
5. Asks for help
6. Chunking
7. Gets mouth ready
8. Skips words/goes on/rereads
9. Self-corrects
10. Goes back to find words somewhere else

Uses: _____ meaning
_____ structure/syntax
_____ visual

Fluency:

1. Word by word ..... Reads in phrases
2. Too slow or too fast ..... Appropriate pacing
3. No expression ..... Appropriate expression
4. Not aware of punctuation ..... Aware of punctuation
5. Stumbles over sight words ..... Automatic sight word recognition

From *English Language Arts: A Curriculum Guide for the Elementary Level (K-5)* (p.149), by Saskatchewan Learning, 2002. Reprinted with permission.

E2.4 Accuracy of Word Recognition Calculation

The following method can be used to calculate the accuracy of word recognition. Have a student read a passage then count the number of words correctly decoded and recognized divided by the total words read in the passage. Multiply this number by 100. This number equals the percent of accuracy.

Examples:

- 140 (known words) divided by 156 (total words read) x 100 = 89.7% (percent accuracy) or 90% accuracy. This text is too difficult for the student to use when doing repeated oral readings.
- 166 (words known) divided by 172 (total words read) x 100% = 95% (percent accuracy). This text is at the appropriate level for the student to use when doing repeated oral readings.

From *Orchestrating Success in Reading* (p.286) by D. Reithaug, 2002, West Vancouver, BC: Stirling Head Enterprises. Reprinted with permission.

When doing repeated oral reading with students, teachers are encouraged to choose a wide variety of materials and seek input from students as to what they enjoy reading. Materials may include magazines, CD covers, driver's manual, newspaper articles (reviews of concerts and movies), and posters.

Remember, always choose material that is within the student's **independent/instructional** reading level when implementing repeated oral readings.

E3 Recommendations for Teaching Reading Fluency

The following suggestions are provided for teachers to assist students in developing reading fluency.

- Model fluent reading for your students.
- The duration of the fluency instruction should be 15 to 30 minutes per lesson.
- Provide the student with corrective feedback (immediate feedback on every single error). The corrective feedback that students receive on one reading can help them become more accurate on their next reading.
- When doing repeated oral readings, the student can go over the words that were difficult to look for any possible letters or groups of letters that were problematic.
- Students require instruction in fluency along with continued instruction of phonics skills, vocabulary development, and reading comprehension strategies.
- The amount of practice will vary with each student, depending on his/her skills. Some students only need to read a word once to recognize it again while others need many exposures.
- Have students engage in multiple readings (three to four times).
- Provide students with concrete measures of progress (recording forms) so they can see their progress.
- Students can read along with books or any materials on a computer if you have a "read" program such as WYNN Wizard or Kurzweil 3000. Please refer to Appendix J, Assistive Technology, for further information.
- Incorporate Choral Reading into your classroom.

Adapted from Mather & Goldstein (2001); National Institute of Child Health and Human Development (2000); Reithaug (2002).

E4 Reading Fluency Activities to Get You Started

Repeated Reading

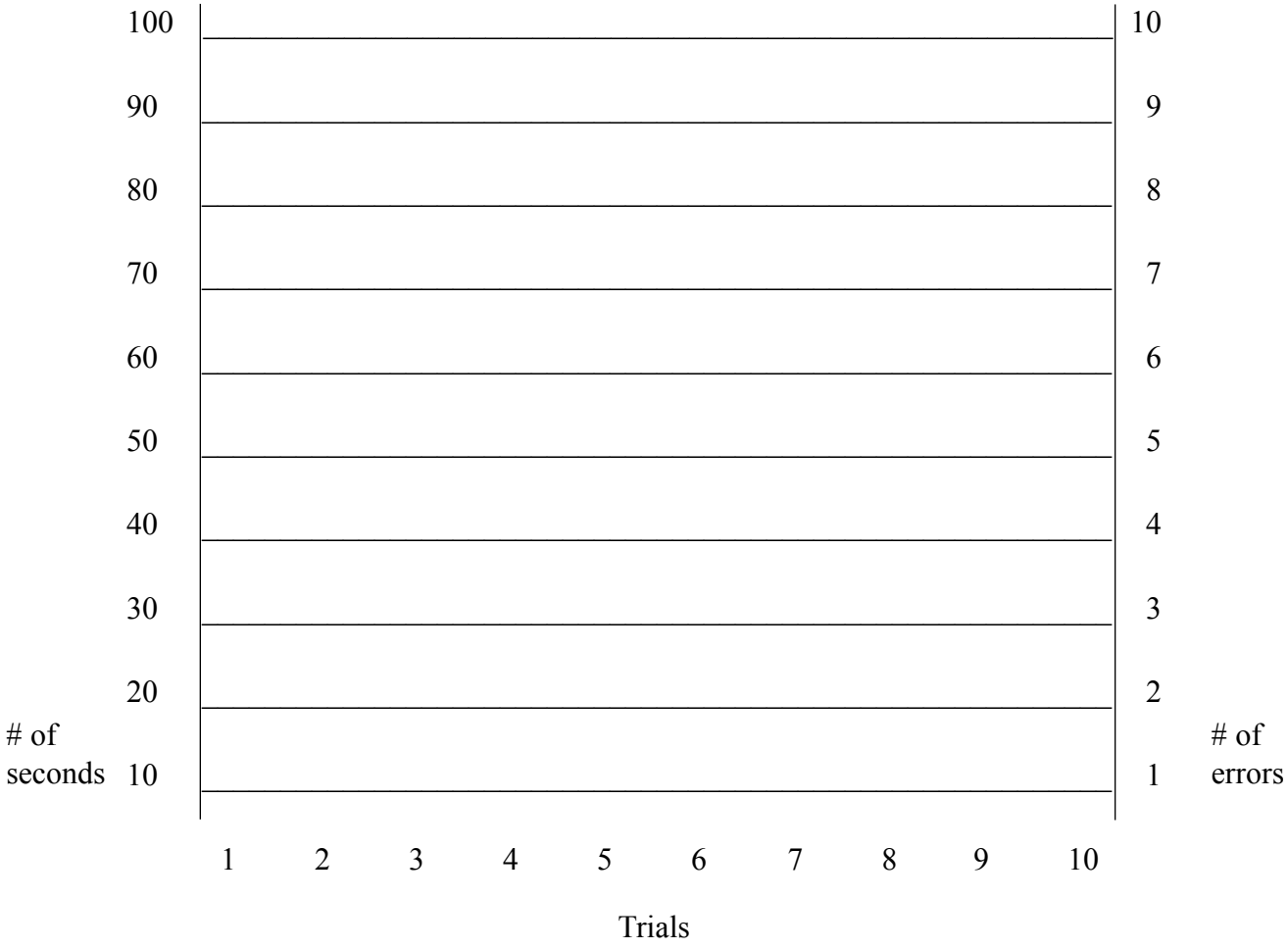
- For this procedure, the child reads the same passage repeatedly.
- Select a passage of 50 to 100 words slightly above the student's independent level of reading.
- The student reads the passage while the teacher times the reading and counts the number of words that are pronounced correctly.
- Record the reading time and the number of words correctly read.
- Graph the results.
- Between readings, ask students to review the selection, and practise words that were problematic.
- Reread the passage until the predetermined goal is reached or until the student is able to read the passage fluently with few mistakes.

From *Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management* (pp.339-340) by N. Mather & S. Goldstein, 2001, Baltimore, MD: Paul H. Brookes Publishing. Reprinted with permission.

Repeated Readings

Name: _____ Date: _____ Estimated Grade Level _____

Book: _____ Number of words in passage _____



From *Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management* (pp.339-340) by N. Mather & S. Goldstein, 2001, Baltimore, MD: Paul H. Brookes Publishing. Reprinted with permission.

Neurological Impress Method (Heckelman, 1969, 1986)

- Select a passage at an independent reading level.
- Teacher reads aloud with a student for 10 - 15 minutes.
- Teacher reads a little ahead and louder than the student to allow the student to hear the word before saying it.
- Teacher points to the words while reading.
- This procedure helps to improve phrasing and intonation.

Adapted from Mather & Goldstein (2001).

Taped Books or Books on CDs

- Have the student listen to the tape/CD as he/she follows along with the book.
- The student can read along with the tape/CD.
- Students can also follow along as they read books on computers.

Appendix F

Spelling

F1 Recommendations for Teaching Spelling

The following suggestions are provided to assist teachers when teaching students how to become independent, competent spellers.

- Words taught should represent patterns the student has encountered in reading.
- Students need to be taught why words are spelled with certain letters(s).
- Teach students meaningful parts of words so they can begin to look for the sense in word form (e.g., when do you double a consonant before adding "ing" as in "hopping" vs "hoping").
- Encourage active study of words (explore word relationships, sort words into groups).
- Practise the memorization of high-frequency irregular spelling words through a multi-sensory approach (see, say, feel, write).
- Students should have ample practice writing learned words in many contexts. (Adapted from Moats, 1998).
- Graham, Harris, MacArthur, and Schwartz (1998) suggest that effective word study should focus on the whole word, pronunciation of the word, self-evaluation, and correction of the practiced response.
- Students should be encouraged to form a visual image of the word.
- Tracing of the word is helpful to many students.
- Use games to promote spelling practice.
- Use peer tutoring and cooperative group arrangements to study spelling words.
- Encourage students to evaluate and discuss spelling patterns and rules.
- Beers (2003) suggests posting word wall lists. Lists can include "spelling demons", homonyms (principal/principle), suffixes/prefixes, school words (teachers' names, courses), and thematic words (related to topics of study).
- Posting the most common spelling rules is also helpful to students to use as a reference.
- It important to look for patterns of spelling errors in order to better assist students with their difficulties.
- Teach words that are part of students' listening and speaking vocabulary.
- Test a few words daily.
- Teach spelling words by using onsets and rimes.

  Onset is the initial consonant of blend in a word (e.g., "b" in back or "bl" in black).

  Rime refers to the vowel plus the final consonant (e.g., "ing" in bring, "own" in clown and down).

F2 Activities to Get You Started

Multisyllabic Spelling

			Write each syllable					
Write the Word	**Say the Word**	**Write the # of Syllables**	**1**	**2**	**3**	**4**	**5**	**Write and Say the Word**

From *Accommodating Students with Reading and Writing Difficulties in the General Education Classroom* (handouts) by N. Mather, 1998. Reprinted with permission.

Appendix G

Written Expression

G1 Assessment of Written Expression

G2 Recommendations for Teaching Written Expression

G1.1. Sample Writing Process Assessment Checklist

A = Always = 5 marks U = Usually = 3 marks N = Never = 0				Comments
When pre-writing, the student:				
uses a variety of pre-writing techniques				
considers the purpose of the piece				
considers the audience for the piece				
considers various possible points of view				
considers possible formats appropriate to purpose and audience				
When drafting, the student:				
produces a first rough draft				
produces subsequent drafts				
confirms point of view				
confirms format appropriate to purpose and audience				
confers with peers and teacher				
revises the draft for content and clarity of meaning				
edits the draft individually and collaboratively				
When post-writing, the student:				
prepares a final, polished draft				
decides if and how the written work will be shared or published				
shares or publishes a variety of written forms				
decides which writing pieces become part of the portfolio				
Throughout the writing process, the student:				
reflects upon the written piece and revises accordingly				
confers willingly with teacher and peers				
consults appropriate reference resources as needed				
monitors continuous progress				

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p.226) by Saskatchewan Learning, 2003, Regina, SK: Author.

G1.2. Sample Writing Assessment and Evaluation

Before	Observations
What does the student do before writing? ❑ Finds a topic or idea of personal interest or one appropriate for purpose and audience. ❑ Generates ideas for writing by using strategies such as brainstorming, questioning, quickwrite, conferencing, clustering, webbing, discussing, drawing. ❑ Accesses and gathers additional ideas and information from external sources. ❑ Selects and focuses topic. ❑ Develops a plan or approach. ❑ Chooses a writing format. ❑ Organizes ideas and ❑ Other:	
During	
What does the student do during writing to communicate meaning? ❑ Explores ways to start. ❑ Puts ideas down on paper. ❑ Drafts, shapes, connects, composes and creates. ❑ Experiments. ❑ Modifies, changes, and problem solves. ❑ Reflects and clarifies. ❑ Talks over draft with others and ❑ Other:	
After	
What does the student do after writing? ❑ Rereads during and after drafting. ❑ Rethinks what has been written. ❑ Reviews and edits content. ❑ Reviews, and edits form and organization. ❑ Checks language for clarity, precision, and appropriateness. ❑ Attends to conventions. ❑ Confers and discusses. ❑ Shows concern for overall appearance. ❑ Shares by reading aloud, reader‘s circle, displaying, “publishing”, and ❑ Other:	

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p.212) by Saskatchewan Learning, 2003, Regina, SK: Author.

G1.3. Sample Criteria for Assessing a Short Story

<table>
<tr><td colspan="2">The setting: Where and when does the story take place?</td></tr>
<tr><td colspan="2">Main characters: Who are the people in the story?</td></tr>
<tr><td colspan="2">The conflict: What are the problems?

Internal Conflicts:

External Conflicts:</td></tr>
<tr><td colspan="2">The main character’s goal: What does the main character want to do?</td></tr>
<tr><td>The plot: What happens (sequence of events)?</td><td>Language: What interesting language has been used to add to the story? (e.g., dialogue, imagery, metaphor)</td></tr>
<tr><td colspan="2">The resolution: How does it end?</td></tr>
</table>

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p. 227) by Saskatchewan Learning, 2003, Regina, SK: Author.

G1.4. Sample Written Language Checklist

Student: _____ **Grade:** _____ **Date:** _____

Language Knowledge/Abilities	Comments	Date Accomplished
• writes complete sentences		
• writes compound and complex sentences		
• uses a variety of sentence patterns		
• creates strong topic sentences		
• adds detail to support topic sentence		
• chooses effective verbs		
• uses descriptive words		
• sequences ideas and events appropriately		
• develops plot effectively		
• uses appropriate format for given/self-chosen audience and purpose		
• uses imagery and sensory appeal		
• expresses beliefs and opinions honestly		
• collects and organizes ideas effectively		
• writes in a variety of genre (list these)		
• other		

Teachers can use the above checklist as it is, or adapt it to fit their chosen objectives. It may also be adapted for student use. One checklist should not contain all writing criteria; editing/ proofreading is less overwhelming when checklists are specific and fewer items are listed.

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p.218) by Saskatchewan Learning, 2003, Regina, SK: Author.

G1.5. Sample Analytic Scoring Rubric for a Written Composition

Criteria	5 (Strong)	4 (Competent)	3 (Adequate)	2 (Developing)	1 (Not yet)
Criterion 1: Message Quality (Ideas and Development)	Message is clear, focused, and well developed. Ideas and details are relevant, fresh, and appropriate to message.		Message is communicated but the text needs a clearer focus or more development of the ideas (e.g., details).		Unclear focus; no elaboration of idea(s) (i.e., details irrelevant or inappropriate content.
Criterion 2: Coherence (Organization)	Text is sufficiently and logically developed. The central idea is clear. Transitions are effective.		The structure moves reader through text without confusion and there is a recognizable introduction and conclusion. The central idea is not sufficiently or logically developed or connections between ideas may not always be clear.		Text lacks clear sense of direction or development. Ideas may be strung together loosely, there may be an ineffective or nonexistent introduction or conclusion, and it may be hard to determine main point or method of development.
Criterion 3: Language	Register and tone are appropriate and hold reader's attention. Fresh, imaginative language is used to create an image, make a point, or capture reader's interest. Sentences are well constructed and varied for emphasis or effect. Word choices are precise, interesting, and appropriate.		Register and tone are appropriate but not consistently used. Language tends to be more business-like than engaging. Attempts are made to use language imaginatively. Sentences are generally correct with some variety in length and structure. Words are adequate and correct but lack flair and originality.		No evidence of awareness of intended reader. Flat and unimaginative language is used. Sentences are incomplete, run-on, or simple in structure. Word choices are vague and immature.
Criterion 4: Language Conventions	Text adheres to accepted standards of format, usage, spelling, punctuation, and capitalization at developmental level. Some minor errors may be present.		Text shows a reasonable control over conventions. Some errors are made in format, usage, spelling, punctuation, or capitalization but they do not interfere with meaning.		Many errors in format, usage, spelling, punctuation, or capitalization make message difficult to understand.

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p.116) by Saskatchewan Learning, 2003, Regina, SK: Author.

G2 Recommendations for Teaching Written Expression

Because the process of writing is so complex it is very important that students observe teachers working through the various stages of the writing process. Teachers are encouraged to model each stage of the writing process in order to guide the students. If students observe teachers thinking, reflecting, and revising as they write, they will be more likely to adopt these practices. Other suggestions to consider are the following:

- Give students the opportunity to write on a daily basis. The only way one can improve his or her writing is to write often with the guidance of a teacher or support personnel.
- Make the purpose of the writing meaningful. Typically, students who have difficulty with writing do not like to write. Therefore, the more meaningful the writing project is the more likely they will be willing to write. For example, rather than asking students to keep a personal journal, engage the students in a response journal whereby the student writes to a teacher, administrator, parent, teacher associate, or peer. Cross-age student partners is a good way for students to work with others who are good writing models.
- Students will require instruction in all aspects of writing: spelling, types of sentences, organizing paragraphs, writing for different purposes, and writing conventions.
- Create opportunities for students to work together to plan, draft, revise, and edit their work.
- Incorporate writing activities across the curriculum.
- Publish students' work in the school and local newspapers, newsletters, and magazines.
- Display students' writing in the school.
- Keep a portfolio of students' writing.
- Expose students to a wide variety of writing styles.
- Share your written compositions with students.
- Use reading activities to support writing development.
- Begin teaching writing skills in Kindergarten.
- Encourage students to use a portable keyboard or word processor. Many students prefer to use a computer because it is quicker to make revisions, the written product looks much neater and more professional, and typing is easier than printing or writing for students who have difficulty with fine motor tasks.
- If students do not have access to a computer or portable keyboard, encourage them to cut and paste during the editing phase.

G2.1. Some Key Teaching Strategies to Help Students Become Competent and Confident Writers

Some Strategies for Students to Use Before Writing	**Some Strategies for Students to Use During Drafting**	**Some Strategies for Students to Use After Drafting**
Do I: Consider why am I going to write (purpose, audience, point of view)? Think about what message I want to communicate? Generate and discover ideas for writing (brainstorming, webbing, interviewing, discussing, researching, reading, free writing, listening, viewing, categorizing,…)? Know what form (e.g., poem, narrative,…) I am going to use and how I am going to organize my ideas in that form?	Do I: Select and develop ideas from my pre-writing into a first draft? Focus my purpose, audience, point of view, and confirm appropriateness of format? Write subsequent drafts for clarity of meaning? Add, delete, condense, move, rearrange or expand ideas? Conference about ideas with peers and teacher?	Do I: Write a final, polished draft in legible handwriting or use a word processing program? Edit for content and organization? Edit for sentence fluency and word choice? Proofread for usage, spelling, capitalization, and punctuation? Decide if and how the work will be shared and/or published?
Some Pre-writing Strategies Discussed in Guide (pp. 132-136)	**Some During-writing Strategies Discussed in Guide (p. 136)**	**Some Post-writing Strategies Discussed in Guide (pp. 136-138)**
Presenting mini-lesson, discussing, and modelling: Gathering ideas: Brainstorming Thinking and Reflecting Talking and Remembering Jotting ideas and Drawing Reading and Researching Observing and Viewing Asking 5 W's + H Constructing Thought Webs and Graphic Organizers Interviewing, Listening to Music Reading about and Researching Free Writing, Role Playing Planning and organizing for Drafting: Outlining Mapping and Diagramming Constructing Story Frames Considering purpose, audience, point of view, and format (pp.135-136).	Presenting mini-lesson, discussing, and modelling: Writing Rough Drafts Conferring with Peers and Teachers Revising for Meaning	Presenting mini-lesson, discussing, and modelling: Revising (Editing and Proofreading) Evaluating Sharing Conferring Using Checklists Participating in an Author's Circle (pp.139-140).
Additional Writing Strategies that I would Like to Try **e.g., Writing Organizers, Guided/Layered Revision, I-Search Papers, …**		

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p. 228) by Saskatchewan Learning, 2003b, Regina, SK: Author.

G2.2. Sample Teacher Checklist to Support Writing

1. Do I model and share writing strategies, as well as my own written work?
   - ____ develop students' explicit knowledge of the writing process and its recursive nature
   - ____ have students write frequently on a variety of topics for a variety of purposes and audiences
   - ____ introduce a variety of pre-writing, drafting, and revision strategies

2. Do I use mini-lessons to help students review or acquire writing skills or strategies or learn a specific language concept?
   - ____ analyze what individuals and groups of students need to know, and build on what they already know
   - ____ provide direct instruction and model writing strategies
   - ____ provide short but focused direct instruction about a language concept, convention, format, or issue

3. Do I provide opportunities for students to write for a variety of purposes and audiences?
   - ____ encourage students to express themselves
   - ____ provide opportunities for students to describe, narrate, inform, and persuade
   - ____ provide opportunities for students to reflect, clarify, and explore ideas
   - ____ provide opportunities for students to entertain

4. Do I provide students with, and help them to use, a variety of tools to assist them during their writing?
   - ____ provide language handbooks
   - ____ provide dictionaries and thesauruses
   - ____ use literature as models
   - ____ include peer learning activities
   - ____ design activities for students to use word processors and the Internet

5. Do I encourage and instruct students about how to use writing as a means of thinking, responding, and learning?
   - ____ encourage students to collect writing ideas in their journals (e.g., key phrases from Thanksgiving dinner, a quick sketch of geese flying in formation)
   - ____ provide time for students to write about what they are thinking (e.g., write down one question you have about this topic)
   - ____ allow students to review, think, and write about a topic again (e.g., write about how your ideas regarding this topic have changed throughout the unit and why)
   - ____ model and encourage use of a variety of strategies including jotting notes, creating idea webs, researching, and designing outlines or overviews
   - ____ provide opportunities for students to experiment with words and writing formats

6. Do I encourage students to use writing folders?
   - ____ encourage students to use folders to sift, sort, and store pre-writing notes
   - ____ encourage students to collect drafts for revision in their folders
   - ____ support students in collecting exemplary and polished work

7. Do I help students balance their attention to writing content, process, and product?
   - ____ encourage students to generate ideas and say what they need to say
   - ____ encourage students to use pre-writing, planning, drafting, conferencing, revising, editing, proofreading, sharing, and publishing strategies
   - ____ encourage students to develop drafts into polished, finished compositions

8. Do I involve students in assessing writing practices and behaviours?
   - ____ identify students' strengths and needs before, during, and after writing
   - ____ consider peer, teacher, and self-assessments (e.g., peer and teacher conferences)
   - ____ use checklists, rubrics, and anecdotal notes
   - ____ use both holistic and analytical scoring
   - ____ involve students in developing assessment criteria and evaluation weighting

G2.3. Planning and Thinking Sheet

Planning and Thinking Sheet

Name: _____ **Date:** _____

Topic: _____

Who am I writing for? _____

Why am I writing this? _____

What do I know about this topic? _____

_____

_____

What do I need to find out about this topic? _____

_____

_____

What have I learned from my research about this topic? _____

_____

_____

How can I organize my main ideas and supporting details?

_____	_____
_____	_____
_____	_____
_____	_____

What is my topic sentence? _____

How will I conclude my writing? _____

G2.4. Sample Editing/Proofreading Checklist

Student: _____ Date: _____

Title of the writing piece is: _____

My purpose is: _____

My audience is: _____

The form of my writing is: _____

Things that I like about this draft are: _____

_____

Things I think need improving are: _____

_____

Editor: (circle one) Self Peer Writing Group Teacher

Item	**Comments**
Capitalization Is the first word of each sentence capitalized? Are all proper nouns capitalized?	
Overall Appearance Is the handwriting legible? Is the word process format consistent? Are formatting, spacing, and margins appropriate?	
Punctuation Is end punctuation (.?!) appropriate? Is internal punctuation (,;:“”) appropriate? Are apostrophes, hyphens, and dashes used appropriately? Are quotation marks used accurately?	
Spelling Does it look right? Does it sound right? Did you use a dictionary or ask a peer or the teacher for assistance?	

It is important to help students to focus their editing/proofreading by limiting the criteria listed on a checklist.

From *English Language Arts: A Curriculum Guide for the Middle Level (Grades 6-9)* Draft (p.217) by Saskatchewan Learning, 2003, Regina, SK: Author.

G2.5. Paragraph Guide

Topic Sentence: _____

_____

_____

Supporting Details:

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____

4. _____

_____

_____

Concluding or Transition Sentence:

_____

_____

_____

From *Woodcock-Johnson Psycho-Education Battery-Revised: Recommendations and Reports,* Brandon, VT: Clinical Psychology Publishing Company (handouts) by N. Mather, 1998. Reprinted with permission.

G2.6. Report Chart

Title: _____

Introduction:

_____

_____

_____

_____

Subtopics:

#1 _____ **#2** _____ **#3** _____

_____ _____ _____

Details:	**Details:**	**Details:**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Conclusion:

_____

_____

_____

_____

From *Accommodating Students With Reading and Writing Difficulties in the General Education Classroom* (handouts) by N. Mather, 1998. Reprinted with permission.

G2.7. POWER: Looking at How I Write

	My Comments		Teacher Comments
Plan			
I chose a good topic.	Yes	No	
I read about my topic.	Yes	No	
I thought about what the reader will want to know.	Yes	No	
I wrote down all my ideas on a "think sheet".	Yes	No	
Organize			
I put similar ideas together.	Yes	No	
I chose the best ideas for my composition.	Yes	No	
I numbered my ideas in logical order.	Yes	No	
Write			
I wrote down my ideas in sentences.	Yes	No	
When I needed help, I . . .			
___ did the best I could			
___ looked in a book			
___ asked my partner			
___ asked the teacher.			
Edit			
I read my first draft to myself.	Yes	No	
I marked the parts I like.	Yes	No	
I marked the parts I might want to change.	Yes	No	
I listened to my partner's suggestions.	Yes	No	
Rewrite			
I made changes to my composition.	Yes	No	
I edited for correctness.	Yes	No	
I wrote the final draft in my best writing.	Yes	No	

From *Instructional Methods for Secondary Students With Learning and Behavior Problems (3rd ed.)* (p.225) by P. J. Schloss, M. A. Smith, & C. N. Schloss, 2001, Boston: Allyn and Bacon. Reprinted with permission.

Appendix H

Personal Program Plans (PPP)

H1 Personal Program Planning Policy and Guidelines

H2 Sample Personal Program Plans

H3 Sample Record of Adaptations

H4 Identifying Student Strengths

H1 Personal Program Planning Policy and Guidelines

Provincial policy and guidelines for planning, implementing and evaluating personal program plans is outlined in the *Children's Services Policy Framework* (Saskatchewan Learning, 2002a).

Rationale

Students with exceptional needs require curricula, instruction, and supports appropriate to their individual strengths and needs. Curriculum and instruction can be tailored to individual needs through application of the Adaptive Dimension. However, in some situations, students may be working on objectives that are substantially different from those outlined in the Core Curriculum, and may require additional supports and services to access and benefit from the curriculum.

Effective professional practice indicates that educational objectives, instructional resources, and individualized supports are systematically planned, documented, monitored, and evaluated. For students on provincially approved programs of instruction, the objectives, instructional strategies, and resources are documented in Core Curriculum guides. For those students who are on individualized programs or who are receiving continuing special education support, the school-based team is responsible for collaboratively planning and documenting the program.

Policy

A Personal Program Plan based on the student's strengths and needs is developed for each student who:

- requires continuing special education interventions and individualized supports to participate in and benefit from the educational program; or
- has been identified for individual incremental funding recognition.

Guidelines

- The Personal Program Plan (PPP) provides an outline of the student's individualized program. It guides the day-to-day work of all the teachers and resource personnel involved with the student, but is not intended to be the daily instructional plan. The PPP provides parents with information regarding learning objectives and adaptations to support their child's learning.

- The information included in the PPP is dependent on the needs of the student. For students who are receiving ongoing special education interventions in only one or two areas of the instructional program, the PPP addresses the particular area(s). For example, a very succinct PPP may be written for mathematics or English language arts.

  For students with intensive educational needs, the PPP typically addresses several or all areas of instruction.

- The personal program planning process includes:
  - identification of student abilities, needs, and interests;
  - establishment of goals and objectives;
  - selection of appropriate strategies and activities; and
  - ongoing evaluation and revision of the plan.

- It is suggested that the written Personal Program Plan include:
  - pertinent personal and educational data, which may include baseline assessment data;
  - identification of the student's strengths and needs;
  - long-term goals and short-term objectives;
  - instructional strategies and resources including participation in classroom activities and instruction with adaptations;
  - assessment methods;
  - the process for reporting of student progress;
  - assignment of responsibility for carrying out the plan;
  - provision of appropriate support services by qualified personnel (e.g., interpreters);
  - implementation of appropriate technology and equipment;
  - transition planning; and
  - process for review, evaluation, and updating of the plan.

- School division personnel collaborate with parents in the development, implementation, evaluation, and revision of the Personal Program Plan.

- The collaborative team includes those individuals directly involved with the student. For students who require a PPP in only one or two areas of instruction, key participants may be the classroom teacher, learning assistance/resource teacher, and parents. For those students on comprehensive PPP's, key participants are parents/family, classroom teacher, school-based resource or learning assistance teacher, school-based administrator(s), educational assistant(s), and the student, where appropriate. The extended team may also include a system administrator and specialist or resource personnel from related support services at the school division or community level.

From *Children's Services Policy Framework* (V. 4.1i–V. 4.1iii) by Saskatchewan Learning, 2002, Regina, SK: Author.

H2.1. Personal Program Plan

PERSONAL PROGRAM PLAN

Year _____

FOR STUDENTS WITH LEARNING DIFFICULTIES (ELEMENTARY)

Name _____ Address _____ Birthdate_____

Parent/Guardian _____ Classroom Teacher _____ Grade _____

School _____ Learning Assistance Teacher_____ Phone No. _____

REASON FOR PROVIDING SUPPORT SERVICES		OTHER SERVICES PROVIDED			
	Academic Achievement		In-School Counselling		Speech & Language
	Previous Recipient of Learning Assistance		English as a Second Language		Other
	Behavioural/Attentional Difficulties				

ASSESSMENTS

COGNITIVE		WRMT-R		KEY MATH		CAT-3		OTHER	
DATE		DATE		DATE		DATE		DATE	
		Grade Placement		Grade Placement		Computation and Numerical Estimation		Grade Placement	
WISC-IV		Word Ident.		Basic Concepts		Language/Writing Conventions			
WJR		Word Attack		Operations		Spelling/Dictation			
Other		Passage Comp.		Application		Vocabulary			
		Full Scale		Total Test		Mathematics			
						Reading/Language (integrated)			

PROGRAM	Regular		Regular with Adaptations		Modified		Dates of Intervention		to	
In-Class Support		Pull-Out-Individual		Pull-Out-Small Group		In-Class Small Group				

A Chronology of Events

Date	Meetings, Conferences, Reviews, Interviews, Telephone Calls, Assessments	Follow-up

OBJECTIVES	STRATEGIES/MATERIALS/RESOURCES	ONGOING EVALUATION
LANGUAGE ARTS Oracy		

OBJECTIVES	STRATEGIES/MATERIALS/RESOURCES	ONGOING EVALUATION
LANGUAGE ARTS Reading		

Objectives	Strategies/Materials/Resources	Ongoing Evaluation
Language Arts Writing		

Objectives	Strategies/Materials/Resources	Ongoing Evaluation
Math		

OBJECTIVES	STRATEGIES/MATERIALS/RESOURCES	ONGOING EVALUATION
OTHER		

STRENGTHS INTERESTS LEARNING STYLE	DATES USED	ACCOMMODATIONS

COMPLETED BY		PARENT'S SIGNATURE	

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H2.2. Learning Assistance and Classroom Supports for Middle Years Students

Year ____

Name _____ Birthdate _____

Parent/Guardian _____

Address _____ Phone No._____

School_____ Teacher_____

Learning Assistance Teacher _____

Reason for Requesting Support Services

- ❑ Academic Achievement
- ❑ Previous or Current Recipient of Learning Assistance
- ❑ Behavioural Difficulties
- ❑ Attentional Difficulties

Assessments

Cognitive	WRMT-R	Key Math	Other Testing
Date Administered: __ Grade Placement: __	Date Administered: __ Grade Placement: ____	Date Administered: __ Grade Placement: ____	Date Administered:____ Grade Placement: ____
❑ WISC IV ❑ Woodcock-Johnson ❑ Other	Grade Equivalents Word ID _____ Work Attack _____ Passage Comp. ____ Full Scale_____	Grade Equivalents Basic Concepts ____ Operations _____ Application _____ Total Test_____	

Results have been shared with parents: Cognitive Y N Academic Y N

Academic Performance (✓) Check appropriate box	At Grade Level	Below Grade Level
Reading Decoding Skills		
Reading Comprehension		
Mathematical Reasoning		
Computation		
Written Work:		
Spelling		
Grammar/Mechanics		
Organization		
Language Skills		

	Possible Factors in Students Low Achievement
	Organization
	Time Management
	Test Writing
	Study Skills
	Note-Taking
	Memory
	Listening Skills
	High Stress
	Language Skills

Strengths/Interests/Learning Style

Social and Emotional Behaviours (✓)							
Self Concept	strong						weak
Behaviour	cooperative						defiant
	aggressive						passive
	attentive						easily distracted
Work Attitudes	independent						dependent

Presently Used	**Needs to be Implemented or Continued**	**Accommodations**
		Daily assignment book/Daily communications book between teacher and home
		Quality of work limited
		Word processor used for assignments
		Subject notes are photocopied
		Content reading is done orally
		Books on tape
		Calculator is used for computation (process for computation is known)
		High percentage of grade given to daily assignments
		Requires time extension for assignments or tests
		Exams are written in a separate area
		Oral exams
		Exams are scribed
❑ Adapted ❑ Modified	❑ Adapted ❑ Modified	Language arts program
❑ Adapted ❑ Modified	❑ Adapted ❑ Modified	Math program
		Technology is in place including: _____
		Counselling Support
		Other

Completed by _____ Date _____

Parent Signature _____ Principal _____

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H2.3. Learning Assistance and Classroom Supports for Secondary Students

Student _____ Grade _____

Year _____

Grade 9	Grade 10	Grade 11	Grade 12	**Accommodations for Students with Attentional Difficulties**
				Break long-term assignments into several smaller, more manageable components.
				Organize schedules for homework and assignments.
				Monitor homework and assignment completion
				Ensure that the daily planner is completed (or use a daily assignment book).
				Monitor time use; complete progress charts
				Teach student to self-monitor.
				Cue to stay on task.
				Organize notes, supply outlines.
				Check that notes are complete and accurate.
				Arrange a peer buddy so student can access a copy of the notes.
				Adjust the amount of note-taking and copying required.
				Highlight important concepts and information.
				Connect with classroom teachers when problems arise.
				Support student in preparing study schedules.
				Support student in preparing study guides.
				Teach test-taking and study skills.
				Contact parents on a regular basis.

				Accommodations for Students with Learning Difficulties
				Teach new strategies.
				Monitor to see that student applies strategies for homework and assignments.
				Pre-teach or re-teach difficult concepts.
				Help student to create webs to link information together.
				Provide lower level reading materials that deal with similar topics as regular texts.
				Provide audio tapes of difficult reading assignments and/or review notes.
				Develop outlines and study guides with the student for each chapter.
				Create a glossary of terms and develop an understanding of course vocabulary.
				Create visuals and diagrams to develop and remember concepts.
				Teach memory strategies.
				Select appropriate computer components for drill and practice of new skills or to build basic skills.
				Edit written work i) using spell checker/word processor ii) proof reader (peer) iii) proof reader (teacher)
				Provide concrete manipulatives to develop concepts.
				Arrange adaptations for tests i) type of questions ii) time extensions iii) feedback at various stages iv) v)
				Provide readers or scribes for exams.
				Arrange for oral exams.
				Teach self-advocacy.

H2.3. Learning Assistance and Classroom Supports for Secondary Students – Continued

				Accommodations for Students with Cognitive Difficulties
				Vary amount of material being learned.
				Simplify instruction.
				Reduce or substitute required assignment.
				Select test items specific to ability level.
				Provide ABC type exams.

				Recommendations for Adaptations in the Classroom

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H2.4. Moose Jaw School Division Personal Program Plan

Board of Education

Moose Jaw School Division No. 1 of Saskatchewan

1075 - 9th Avenue N.W., Moose Jaw, Saskatchewan S6H 1V7
Phone (306) 693-4631 Fax (306) 694-4686

PERSONAL PROGRAM PLAN

STUDENT INFORMATION:	**SCHOOL YEAR:** **DATE:**
Name: Sex: Date of Birth: Age: Grade: Parent/Guardian: Address: Phone: (H) (W)	School: Teacher: Special Education Teacher: Principal: Designation: ( ) Yes ( ) VI ( ) D/HH ( ) Other ( ) No

Relevant Background Information

Family	**Medical**	**Academic**	**Attendance**	**Other**

File Original: cum folder
Cc: Coordinator of Special Education
Cc: Classroom Teacher/ Special Education

Moose Jaw School Division No. 1
Name:
2003-2004

SPECIAL EDUCATION AND RELATED SERVICES

Program placement: ( ) Early Entrance (pre-school) ( ) Functionally Integrated (life skills)
( ) Alternate (level 18, 28, 38) ( ) Bridging

Special Assistant: Name(s): Time:

Resource: ( ) In-Class Support ( ) Pull-Out Individual ( ) Pull-Out Small Group
Time: Time: Time:

Technical Aids/Specialized Equipment: ( ) PC ( ) laptop ( ) FM system ( ) Other

Transportation: ( ) School Bus Route ( ) City Transit ( ) Cab ( ) School Van ( ) Other

Personnel Involvement	Yes/No	Name/Phone
Speech-Language Therapist		
Educational Psychologist		
Counsellor–Education/Mental Health/Addictions		
Occupational Therapist/Physiotherapist		
Special Education Teacher		
Social Services/Corrections and Public Safety		
Mental Health-CYS-CYAP/ICMP - Mentors		
Interagency Mentorship Program		
IMED		
Behaviour Consultant		
Family Resource Centre		
Optometrist/Audiologist/Teacher of Deaf and Hard of Hearing		

File Original: cum folder
Cc: Coordinator of Special Education
Cc: Classroom Teacher/ Special Education

Moose Jaw School Division No. 1
Name:
2003-2004

Testing and Observations			
Date Administered	**Test**	**Results**	

Student Areas of Strength	Student Area of Need	Student Interests

Parent Goals	Student Goals	School Goals

File Original: cum folder
Cc: Coordinator of Special Education
Cc: Classroom Teacher/ Special Education

Moose Jaw School Division No. 1
Name:
2003-2004

1st Review Date:	2nd Review Date:
Recommendations	**Recommendations**

Signatories	Signatories
Parent/Guardian: _____ Student (if applicable):_____ Classroom Teacher: _____ Special Education Teacher: _____ School Administrator: _____ Special Education Coordinator: _____ (Other) Position Name _____ _____ _____ _____ _____ _____ _____ _____	Parent/Guardian: _____ Student (if applicable):_____ Classroom Teacher: _____ Special Education Teacher: _____ School Administrator: _____ Special Education Coordinator: _____ (Other) Position Name _____ _____ _____ _____ _____ _____ _____ _____

File Original: cum folder
Cc: Coordinator of Special Education
Cc: Classroom Teacher/ Special Education

Moose Jaw School Division No. 1
Name:
2003-2004

H2.5. Moose Jaw School Division No. 1 Personal Program Plan

Board of Education
Moose Jaw School Division No. 1 of Saskatchewan

PERSONAL PROGRAM PLAN

Student: _____ School: _____Grade: ____
Classroom Teacher: _____ Resource Room Teacher: _____
D.O.B.: _____ Parents/Guardians: _____
Address: _____ Telephone: _____

Background Information: _____

_____

_____

_____

Testing: _____

_____

Supports: _____

_____

Strengths: _____

_____

_____

Needs: _____

_____

_____

Adaptations: _____

_____

_____

Signatures: Reporting Period 1:

_____	_____	_____	_____
Parent	Teacher(s)	Resource Teacher	Principal

Reporting Period 2:

_____	_____	_____	_____
Parent	Teacher(s)	Resource Teacher	Principal

Reporting Period 3:

_____	_____	_____	_____
Parent	Teacher(s)	Resource Teacher	Principal

H2.5. Moose Jaw School Division No. 1 Personal Program Plan – Continued

Curriculum Area: _____

Long Term Goal: _____

Short Term Objectives	Instructional Strategies	Materials	Evaluation

From Moose Jaw S. D. No. 1, Moose Jaw, SK: Author. Reprinted with permssion.

H3 Regina R.C.S.S.D. No. 81 Record of Adaptations

CLASSROOM TEACHER'S RECORD OF ADAPTATIONS

Name **Birthdate** **School** **Subject(s)**									
ENVIRONMENT	**YEAR**								
	GRADE	1	2	3	4	5	6	7	8
Considering times of day for optimum learning									
Being aware of sensitivity to sound, light, temperature, and ventilation									
Considering position in classroom									
Considering seating at desk (size, wheelchair accessible, etc.)									
Providing strategies for organization (timetable, list of items to complete, handbook, calendar, colour-coded duotangs, etc.)									
Using learning aids (computers, tape recorders, etc.)									
Varying seating during group work									
Providing additional work space (table, extra shelf, etc.)									
Providing for physical movement									
Providing for tutors									
Providing for heterogeneous cooperative learning groups									

CLASSROOM TEACHER'S RECORD OF ADAPTATIONS

Name **Birthdate** **School** **Subject(s)**									
CURRICULUM AND EVALUATION	**YEAR**								
	GRADE	1	2	3	4	5	6	7	8
Learning objectives: concepts relevant to student									
Using materials at appropriate instructional levels									
Using appropriate vocabulary									
Using untimed tests									
Revising test directions/formats									
Allowing for flexible test scheduling/settings									
Allowing test questions to be read									
Providing tests with adjusted readability levels									
Giving oral tests									
Providing the opportunity to record answers in any manner (e.g., computer)									
Allowing the use of a calculator									
Allowing the use of a tape recorder for testing									
Giving credit for effort									
Evaluating daily work so reinforcement is consistent and positive									
Giving extra credit for projects/assignments instead of formal tests									
Marking the test for content not spelling and grammatical errors									
Using various types of evaluation for the same skill									
Ongoing varied assessments that provide reinforcement to the student									
Practising test-taking									

CLASSROOM TEACHER'S RECORD OF ADAPTATIONS

Name **Birthdate** **School** **Subject(s)**									
INSTRUCTION	**YEAR**								
	GRADE	1	2	3	4	5	6	7	8
Pre-teaching new vocabulary, concepts, symbols									
Simplifying language of instruction									
Providing immediate feedback									
Using cooperative teaching									
Using cooperative learning groups									
Using peers as scribes, readers, models									
Using concept mapping to summarize key points									
Increasing opportunities for skill development and practice									
Providing repetition and review									
Simplifying instructions									
Summarizing and repeating instructions									
Writing instructions on board									
Modifying the pace of the lesson									
Speaking slowly/clearly									
Standing close to student									
Having student paraphrase instructions									
Providing task analysis (breaking information into steps)									
Using paired reading/shared reading strategies									
Emphasizing routines									
Providing for heterogeneous work group									
Providing for tutors									
Providing opportunities to verbalize information and strategies									
Providing additional guidance									
Providing manipulatives									
Providing learning aids (computers, calculators, tape recorders, charts, number lines, multiplication tables, highlighters, etc.)									
Providing date and number stamps									

H3 Regina R.C.S.S.D. No. 81 Record of Adaptations – Continued

INSTRUCTION (cont'd)	YEAR								
	GRADE	1	2	3	4	5	6	7	8
Providing demonstrations									
Drawing pictures									
Providing photocopied information									
Providing simple diagrams for information									
Completing first example with student									
Blocking items on a page									
Varying complexity of assignments and projects									
Using videos for review									
Using overheads									
Involving students in presentation of information									
Providing one-to-one instruction									
Using large group/small group instruction									
Reducing workload									
Providing additional time for assignments									
Using rewards									
Allowing for different interests									
Pre-teaching and reviewing of skills									
Using variety of print and non-print materials									
Teaching organizational strategies									
Monitoring frequently									

From Regina R.C.S.S.D. No. 81, Regina, SK: Author. Reprinted with permission.

H4 Identifying Student Strengths

H.4.1 Seven Intelligences – Seven Ways to Be Smart (Ways to prepare lessons using different intelligences)

Intelligence	Teaching Activities (Examples)	Teaching Materials (Examples)	Students Learn by (Examples)
Verbal/ Linguistic (using and responding to written and spoken words)	large and small-group discussion, choral reading, storytelling, poetry reading, lectures, writing, word games, brainstorming, reader's theatre	books, tape recorders, journals, word games, books on tape, word processors, talking books, manuals	reading, writing, telling, listening, speech making, following directions, journal writing, taping own and others' thoughts and ideas
Logical/ Mathematical (using scientific thinking and problem solving)	science experiments, mental calculation, number games, solving pattern problems, using formulas, critical thinking, logical problem-solving exercises, analytical thinking	calculators, science games, science equipment, mathematics games, logic puzzles, mathematics manipulatives	analytical thinking, categorizing, classifying, quantifying, critical thinking, conceptualizing, logical-sequential presentation of material
Visual/Spatial (using the sense of sight and the ability to make mental images)	visual presentations, mind mapping, using graphic organizers, visualization, imagination games, making connections and patterns, painting word pictures, creating metaphors, field trips	films, videos, art materials, pictures, slides, graphs, maps, charts, collages, posters, models, optical illusions, overhead projector, computer graphics and design software, CD-ROMs, cameras, telescopes, microscopes	mind mapping, colouring, seeing, drawing, visualizing, diagramming, seeking visual patterns, creating, designing, imagining
Body/Kinesthetic (learning and expressing by doing)	all types of hands-on learning, science and mathematics experiments, drama, dance, sports that teach, role-playing, charades, field trips, mime, games, body language communication, cooking, gardening, real-life activities	mathematics manipulatives, real-life materials, virtual reality software, science labs	interacting through space and with objects, tactile experiences-touching, building, fixing, manipulation materials, learning by doing
Musical/ Rhythmic (using and reacting to rhythmic and tonal patterns)	playing music, using live music, group rapping, chanting, using tonal patterns, singing, humming, sound appreciation activities, using rhythms, listening to and identifying environmental sounds	musical instruments, tapes, music software	hearing music in the environment, responding to and associating sounds, creating music and rhythmic patterns, singing
Interpersonal (interacting with and learning about others)	peer tutoring, collaborative learning, conflict mediation, group brainstorming, community involvement, club activities, social construction of knowledge	board games, simulation games, interactive software	interacting with and learning about others, interviewing, sharing, observing others, teaching, debating, discussing
Intrapersonal (understanding self)	individualized instruction, independent study, providing options in course study	journals, individualized work materials	reflecting, making connections to personal life and feelings, having own space

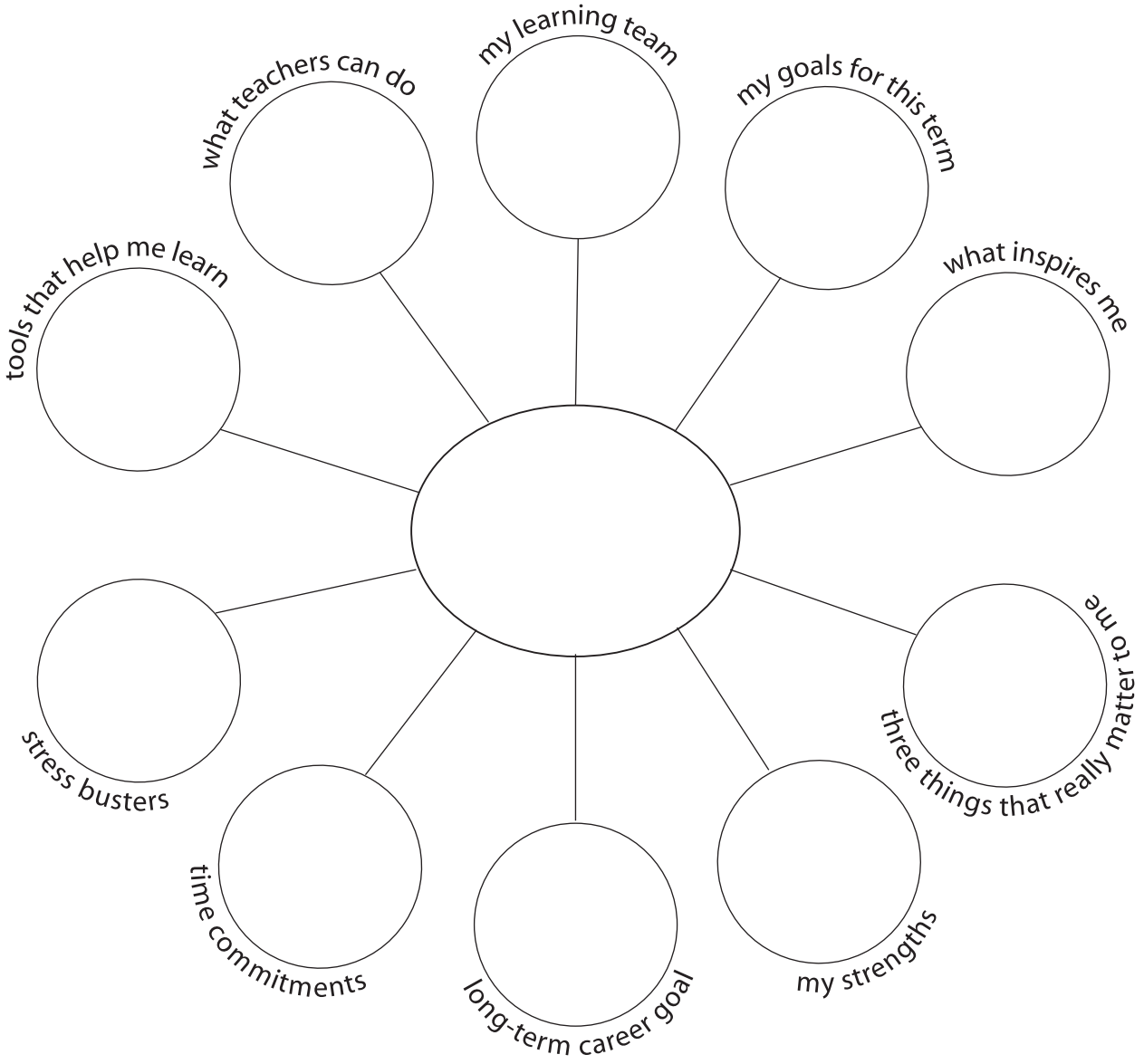
From *Success for All Learners: A Handbook on Differentiating Instruction* (p.4.14) by Manitoba. Education and Training, 1996, Winnipeg MB: Author. Reprinted with permission.

H4.2. Personal Inventory

Student name: _____ Date: _____

Personal Inventory

- Complete the following web with key words and phrases that describe your personal learning styles and preferences.



Reproduced with permission from Alberta Learning, *Make School Work for You*: *Teacher Implementation Guide* (Edmonton, AB: Alberta Learning, 2001), p..35.

H4.3. Know Your Own Strengths Inventory

Date: _____

Name: _____

A. List four successful experiences you have had in the last 12 months:

- _____
- _____
- _____
- _____

B. List four everyday things you do well:

- _____
- _____
- _____
- _____

C. List two things you could teach someone else:

- _____
- _____

D. List ten positive words to describe yourself:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

E. List two things that really matter to you:

- _____
- _____

F. List two things you can do for yourself that will always make you feel good:

- _____
- _____

G. List two people who you can count on for help and support:

- _____
- _____

Reproduced with permission from Alberta Learning, *Make School Work for You*: *Teacher Implementation Guide* (Edmonton, AB: Alberta Learning, 2001), p.46.

H4.4. Student Information/Interest Sheet

Student Name: _____
Last First Middle

Homeroom:_____ Date of Birth: _____
(Day /Month /Year)

Home Address: _____

_____

City: _____ Province: _____ Postal Code: _____

Home Telephone Number: _____

Mother's Full Name: _____ Business Phone # _____

Father's Full Name: _____ Business Phone # _____

Siblings: Name: _____ Age: _____

Name: _____ Age _____

Name: _____ Age _____

• The school I attended last year: _____

• The subjects I like most in school are: _____

• The subjects I like least in school are: _____

• In my spare time, I like to:_____

_____

_____

• My favourite TV shows are: _____

• My favourite movie is: _____

• I believe… _____

_____

• Other important information (health concerns, family situations): _____

_____

• I am a bussed student: ❑ yes ❑ No

Appendix I

Transition Planning

I1 Transition Planning Policy and Guidelines

Policy and guidelines outlined in the *Children's Services Policy Framework* (Saskatchewan Learning, 2002) are provided to assist school and school division personnel in planning for transitions.

Rationale

All students go through a number of transitions in their school careers. This includes minor transitions such as moving between activities, settings, and grade levels; and major transitions such as the transition from preschool to elementary school, from elementary to high school, and from high school to adult life.

Students with exceptional learning and behavioural needs may need assistance to adjust to and benefit from change and new experiences. Advanced planning is necessary to ensure that the student has access to, and is able to participate in future environments.

Policy

Transition planning is an integral part of the personal program planning process for students with diverse needs. Personal Program Plans for students with exceptional needs include documentation of transition planning.

Guidelines

- Transition planning is student and family-centred.
- A collaborative team approach is used throughout the planning process. The team members vary depending on the nature of the transition. At a minimum, key members are the student, parents/family, and personnel from the sending and receiving programs. For example, transition planning from one educational setting to another should include personnel from both the sending and receiving classrooms.
- Other transitions may require a more extensive transition planning team. For example, the transition team for a student entering Kindergarten would include those who have been involved with the student and family (e.g., an early childhood interventionist, preschool teacher, speech/language pathologist, or physical therapist). The extended planning team for transition from school to adult life might include representatives from community services, a social worker, advocate, and potential employer.
- The school program is comprehensive and flexible and provides the student with the opportunities to develop skills needed in the future environment.
- Planning for transition is student-directed to the maximum extent possible and includes exploration of a range of options.
- Planning for transition is documented as part of the Personal Program Plan.
- Policies and procedures are in place to facilitate the sharing of information. Upon the consent of the family or student of legal age to provide consent, information is shared with future educational or vocational environments.

- Detailed guidelines for transition planning for students with a range of exceptional needs are included in the document *Creating Opportunities for Students with Intellectual or Multiple Disabilities* (Saskatchewan Education, 2001) and *School to Life Transition Handbook: Five Steps to Successful Planning* (McLeod, 1999).

I2 Transition Checklist

This transition checklist is not only intended to be completed at the finish of high school, but to serve as a guide to the types of activities that the student should be engaged in during high school.

- ❑ I have an updated copy of my last psycho-educational assessment.
- ❑ I have a copy of my most recent Personal Program Plan.
- ❑ I have copies of my transcripts.
- ❑ I have pertinent medical information I need to share.
- ❑ I have contacted the special needs offices of the institutions I am considering.
- ❑ I have prepared a set of questions to ask regarding accommodations for my specific needs at these institutions.
- ❑ I have the addresses and phone numbers of the people who have provided assessment of my specific needs.
- ❑ I have a record of the assistive technology that has been previously provided.
- ❑ I have checked the accommodation policies of the institutions I am considering.
- ❑ I have prepared a list/inventory of my successes and accomplishments at school and in the community.
- ❑ I have a summary of career searches/exploration I have completed.
- ❑ I have visited the campuses (electronically or in person) of the institutions I am considering.
- ❑ I have researched funding sources and financial assistance opportunities.
- ❑ I have completed the goals of my transition plan.

From Transitions to High School: Self-Advocacy Handbook for Students With Learning Disabilities and/or Attention Deficit Hyperactivity Disorder by H. Eaton, & L. Coull, (2000), Vancouver, BC: Eaton and Coull Learning Group. Reprinted with permission.

I3 Post-Secondary Institutions and Community-Based Services for Students with Learning Disabilities

I3.1. Learning Disabilities Association Saskatchewan (LDAS)

The Learning Disabilities Association has existed in Saskatchewan since 1971. LDAS is a non-profit organization that works at local, provincial, and national levels to promote understanding and improved services for people with Learning Disabilities. Chapter Offices are located in Regina and Saskatoon. From time to time there have been various Chapter Offices throughout Saskatchewan. Please contact the Provincial Office for further information on Chapter locations.

The provincial office in Saskatoon offers the following services:
- ABSee Reading Program;
- Destination Employment Program/Screening for Success;
- Support for Parents;
- Quarterly Newsletter;
- Lending Library;
- Workshops and Conferences;
- Vocational counseling, referral, and job placements;
- Programming for adults with learning disabilities; and
- Summer Sunshine Day Camp.

Contact Information:

LDAS
609 - 25th Street East
Saskatoon, SK S7K 0L7
Phone: 306-652-4114
Fax: 306-652-3220
Email: reception@ldas.org
Website: www.ldas.org

LDAS – Regina Branch Office
805 Victoria Avenue
Regina, SK S4N 0R5
Phone: 306-352-5327
Fax: 306-352-2260
Email: ldas.reginabranch@sasktel.net
Website: www.geocities.com/regina_lda

I3.2. University Services

Each University has an office that provides support to students with disabilities. Please call the office or contact the website for more information on the specific services available.

Contact Information:

Disability Services for Students – University of Saskatchewan
Room 60 – Lower Place Riel
1 Campus Drive
Saskatoon, SK S7N 5A3
Phone: 306-966-7273
Fax: 306-966-5081
Email: dss@usask.ca
Website: www.usask.ca/students/dss

Disability Resource Centre – University of Regina
251.15 Dr. William Riddell Centre
3737 Wascana Parkway
Regina, SK S4S 0A2
Phone: 306-585-4631
Fax: 306-585-5172
Email: dianne.mader@uregina.ca
Website: www.uregina.ca/studserv/disability/guide

I3.3. Saskatchewan Institute of Applied Science and Technology (SIAST) Transition to Post-Secondary Education and Employment Program

The Transition to Post-Secondary Education and Employment Program serves adults with a diagnosis of LD, and/or ADD/ADHD. This ten month bridging program assists adults to develop independence in a post-secondary or employment setting by providing them with the necessary skills and strategies needed to be successful.

The course offers skills and strategies in the areas of reading, oral and written language development, interpersonal communication, time management, organization, memory, study and test taking, computers, interpersonal communication, assistive technology, advocacy and self knowledge, as well as career planning. The program recognizes that not all skills and strategies can be taught in isolation. Therefore, students have an opportunity to audit classes or take a class for credit at one of the post-secondary institutions, upgrade Grade Twelve credits, or apply the skills and strategies in an employment placement setting. Students collaborate with instructors to design personal development, learning, and career planning activities that will support their individual goals and allow them to experience a post-secondary or employment environment.

Tuition and materials may be provided by Employability Assistance for People with Disabilities (EAPD). Living costs are the student's responsibility. Students may be eligible for the Provincial Training Allowance (PTA).

Contact Information:

SIAST Kelsey Campus
P.O. Box 1520
Saskatoon, SK S7K 3R5
Phone: 306-933-7549
Fax: 306-933-5867

SIAST also offers a variety of adaptations in a number of areas for all programs for students with learning disabilities who qualify. Further information can be obtained by contacting an Education Equity Coordinator at the following campuses:

Kelsey – (306) 933-6445
Palliser – (306) 694-3014
Wascana – (306) 798-4274
Woodland – (306) 953-7083.

I3.4. Government of Saskatchewan – Employability Assistance for People with Disabilities (EAPD)

The EAPD Program provides funding to assist adults with disabilities to prepare for, secure, and maintain employment. Various supports are offered, including training on the job, vocational and work assessments, psycho-educational assessments, job coaching, support for employers, and disability-related costs in a wide variety of post-secondary education and training programs. In order to be considered for funding, one must be a resident of Saskatchewan between the ages of 18 and 64, and complete the written application. The EAPD program will provide the appropriate level of funding based on the needs of the individual identified in each application. Funds are limited and not all applications are approved.

Contact Information:

Saskatchewan Learning
EAPD Program Manager
1945 Hamilton Street, 12th Floor
Regina, SK S4P 3V7
Phone: 306-787-5602

I3.5. Saskatchewan Learning Provincial Training Allowance (PTA)

The Provincial Training Allowance (PTA) is grant funding to assist with the costs of living for low income adult students enrolled in basic education and related studies, bridging programs, or quick skills training which are not approved for student loan funding. Clients with permanent disabilities can apply for PTA to assist with living costs as long as they are enrolled in a PTA approved program. EAPD funding may be provided to assist with the disability related costs. Application forms and further information is available through the PTA Coordinators at SIAST campuses and Regional Colleges.

Contact Information:

Saskatchewan Learning
Provincial Training Allowance
4635 Wascana Parkway
Regina, SK S4P 3V7
Phone: 306-787-0923

I3.6. Government of Canada - Human Resources Development

The Government offers a Canada Study Grant Program for Canadian students with disabilities. This grant directly offsets the cost of services or equipment that students with disabilities need in order to participate in post-secondary education.

Contact information:

Media Relations Office
Human Resources Development Canada
Phone: 819-994-5559
Website: www.canlearn.ca

Appendix J

Assistive Technology

Numerous software programs and assistive devices are available for students who have difficulty reading and writing.

J1 Reading and Writing Software Programs:

1. What You Need Now (WYNN)

WYNN Reader provides a variety of functions for students who struggle with reading and writing. This software was designed with the assistance of students and adults with specific learning disabilities. It can be used with a standard PC. WYNN Reader assists students with reading, writing, and studying.

Ordering Information:

Freedom Scientific
Learning Systems Group
1-888-223-3344

Web site www.FreedomScientific.com/lsg
Prices available at www.infotaxi.ca/current_price_list.htm

WYNN is also available through Aroga at http://www.aroga.com/learning/learning.asp

2. Kurzweil 3000

The Kurzweil 3000 software is very similar to the WYNN program as it also supports reading, writing, and study skills. Kurzweil 3000 has the capability to incorporate many options when reading text to a student. When students type text into the computer it can be voiced back to them. It has e-mail options and reads the web. Worksheets and examinations can be scanned into the program and students can complete the questions by either typing in the answers or with speech feedback.

Ordering Information:

Betacom Bridges is the Canadian representative (1-800-353-1107)
Winnipeg (204-668-6811)
Vancouver (1-866-655-3855)
http://www.betacom.com

3. Academy of Reading – AutoSkills

This software program supports instruction in the area of phonemic awareness, phonics, oral and silent reading comprehension. The program is appropriate for school aged children (Kindergarten to Grade 12) and adults.

Ordering Information:

AutoSkill (1-800-288-6754)
Representative in Edmonton is Edu-Skills
(Eric MacInnis 1-403-844-8490)

4. Co:Writer 4000

Co:Writer is a software program that assists students with writing. It adds word prediction, grammar, and vocabulary support to any word processor or email program. It is able to generate possibilities for the word a student may use by combining knowledge of spelling, grammar rules, context clues, student history, and letter cues. It includes topic dictionaries for curriculum specific vocabulary. Teachers can add their own topic dictionaries; however, many have already been created including one for Harry Potter.

5. Write:Outloud

Write:Outloud is another software program to assist with the writing process. It gives students immediate speech feedback as they type. Students are able to get feedback to check for proper word usage, tense inflections, omitted words, and misspellings (cues students if they misspell a word). Students are able to see and hear if their writing makes sense.

A teacher's guide is included with the program along with 50 sample files to demonstrate application ideas.

Ordering Information:

Don Johnston Incorporated
1-800-999-4660
http://www.donjohnston.com

Betacom Bridges is the Canadian representative (1-800-353-1107)
Winnipeg (204-668-6811)
Vancouver (1-866-655-3855)

6. Kidspiration

Kidspiration is a visual learning tool that helps students read, write, and express themselves. The software program is an integrated picture and writing system that provides maps, webs, and diagrams to help students organize their thoughts. The program helps students develop visual concepts and expand those ideas into written expression. Kidspiration has an audio feature to allow students to record their words and have their work read aloud.

7. Inspiration

Inspiration is a writing tool to assist students in organizing and linking their ideas. It is a visual tool that helps students diagram and outline their thoughts and facts. The program can be used across the curriculum for whole group discussions and for independent work. Inspiration has internet capabilities to allow the student to set up live hyperlinks to web pages.

Ordering Information:

Betacom Bridges is the Canadian representative (1-800-353-1107)
Winnipeg (204-668-6811)
Vancouver (1-866-655-3855)

J2 Reading Materials:

Start-to-Finish Books is a high interest/controlled vocabulary reading series. Three formats of the book are available–narrated computer book on CD, paperback book, and audiocassette. Students can follow along with the narrator on the computer book and see words highlighted on the screen. After every chapter, there are comprehension questions (cloze procedure or multiple choice). Questions are automatically graded and an accumulated record of each student's performance is available. Classic adventures, history, sports, science and nature, and mystery series are available. The literature series includes some of Shakespeare's plays.

Ordering Information:

Don Johnston Incorporated
1-800-999-4660
http://www.donjohnston.com

J3 Phonological Awareness and Phonics Software:

1. Earobics

Instructional Level: Preschool to adults

General Comments:

- Earobics Level I (ages 4 to 7).
- Earobics Level II (ages 7 to 10).
- Two versions available:
  - Specialist/Clinician/Home (allows 2 children to register)
  - Pro Plus (allows 25 children to register) includes data collection and report writing features.
- Earobics 1 for Adolescents & Adults.
- Suitable for older children and adolescents experiencing delays in phonological development.
- Based on principles for instruction of phonemic awareness.
- Provides **supplemental** instruction to children.

Ordering Information:

Betacom Bridges is the Canadian representative (1-800-353-1107)
Winnipeg (204-668-6811)
Vancouver (1-866-655-3855)

J4 Voice Recognition Software:

1. Dragon Naturally Speaking Preferred 7.0 and Professional 7.0

- Speech recognition technology.
- Offers text to speech features.
- Dictation playback features that assist with editing.
- Provides support for approved hand-held recording devices to enable you to create text when you are away from your PC.
- Fully integrated with Microsoft Word, Excel, Internet Explorer, Corel, and WordPerfect.

Ordering Information:

Advanced Speech and Imaging
A Division of Assistive Technologies
1-888-634-8200
http://www.dragonsys.com/naturallyspeaking/preferred

J5 Mathematics Software:

Academy of Math

- Program is targeted for any student who needs to develop basic math skills.
- Student support resource that includes from basic skills to high school.
- Program offers a combination of task breakdown, sequencing, and mastery criteria to achieve math fluency.

Ordering Information:

AutoSkill (1-800-288-6754)
Representative in Edmonton is Edu-Skills
(Eric MacInnis 1-403-844-8490)

J6 Hardware:

1. AlphaSmart 3000

AlphaSmart is a lightweight, portable keyboard that can be connected to any computer to transfer written material so that it can edited and revised using a word processor.

2. QuickLink Pen

The QuickLink Pen is a handheld scanner. Students can scan printed text from books, newspapers, journals, and magazines. The information can then be transferred to a computer to use in writing assignments and papers. The QuickLink Pen has the capability to scan text directly into a word processor.

3. Reading Pen II

The Reading Pen II is a handheld tool that allows students to scan a word, hear the word read aloud, and get the definition.

4. Speaking Homework Wiz

This tool helps students to look up words they cannot spell. Speaking Homework Wiz allows students to type in words phonetically and the correct spelling and pronunciation of the word is produced. Word definitions are concrete and easy to understand.

5. Homework Wiz Plus

Homework Wiz Plus is a non-speaking speller and dictionary that also includes a calculator. It is silent so students can use it during regular class without disturbing others.

Ordering Information:

Betacom Bridges is the Canadian representative (1-800-353-1107).
Winnipeg (204-668-6811)
Vancouver (1-866-655-3855)

References

References

Adelizzi J. U., & Goss, D. (2001). *Parenting children with learning disabilities*. Westport, CT: Bergin and Garvey.

Alberta Education. (1996). *Teaching students with learning disabilities*. Edmonton, AB: Author.

Alberta Learning. (2002). U*nlocking potential: Key components of programming for students with learning disabilities*. Edmonton, AB: Author.

Alberta Learning. (2003a). *Make school work for you: Teacher implementation guide*. Edmonton, AB: Author.

Alberta Learning. (2003b). *Working together for safe and caring schools*. Edmonton, AB: Author.

Alexander, D. (1999). *Keys to successful learning: A national summit on research in learning disabilities*. Retrieved June 11, 2003, from http://www.ldonline.org/ld_indepth/reading/ncld_summit99.html

Almasi, J. F. (2003). *Teaching strategic processes in Reading*. New York: Guilford Press.

American Psychiatric Association, DSM-IV-TR. (2000). *Diagnostic and statistical manual of mental disorders (*4th ed.). Washington, DC: Author.

Balajthy, E., & Lipa-Wade, S. (2003). *Struggling readers: Assessment and instruction in Grades K-6*. New York: Guilford Press.

Banikowski, A., & Mehring, T. (1999). Strategies to enhance memory based on brain research. *Caucus on Exceptional Children, 32*(2), 1-6.

Beers, K. (2003). *When kids can't read. What teachers can do.* Portsmouth, NH: Heinemann.

Berninger, V., & Graham, S. (1998). Language by hand: A synthesis of a decade of research in handwriting. *Handwriting Review, 12,* 11-25.

Berninger, V., Abbott, R., Whitaker, D., Sylvester, L., & Nolen, S. (1995). Integrating low-level skills in treatment protocols for writing disabilities. *Learning Disability Quarterly, 18,* 293-309.

Berninger, V. W., Vaughan, K., Abbott, R., Abbott, S., Rogan, L., Brooks, A., et al. (1997). Treatment of handwriting problems in beginning writers: Transfer from handwriting to composition. *Journal of Educational Psychology, 89,* 652-666.

Berninger, V. W., Vaughan, K., Abbott, R., Abbott, S., Rogan, L., Brooks, A., et al. (1998). Teaching spelling to children with specific learning disabilities: The mind's ear and eye beat the computer or pencil. *Learning Disability Quarterly, 21,* 1-17.

Berninger, V. W. (1999). Coordinating transcription and text generation in working memory during composing: Automatic and constructive processes. *Learning Disability Quarterly, 22*(2), 99-112.

Blischak, D., Boose, M., Finch, A., Sack, S., & Schmertz, J. (2002). *Focus group: Phonological processes and rapid naming*. Retrieved May 28, 2003, from http://www.fhsu.edu/commdis/aacphonologicalproc.html

Bloom, B. (1987). *The closing of the American mind*. New York: Simon & Schuster.

Bond, G. L., & Tinker, M. A. (1994). *Reading difficulties: Their diagnosis and correction*. Boston: Allyn & Bacon.

Bos, C., & Vaugh, S. (2002). *Strategies for teaching students with learning and behaviour problems* (5th ed.). Boston, MA: Allyn and Bacon.

Brooks, A., Vaughan, K., & Berninger, V. (1999). Tutorial interventions for writing disabilities: Comparisons of transcription and text generation processes. *Learning Disability Quarterly, 22,* 113-128.

Campione, J. C., Brown, A. L., & Ferrara, R. A. (1982). Mental retardation and intelligence. In R. J. Sternberg (Ed.), *Handbook of human intelligence* (pp. 392-490). New York: Cambridge University Press.

Chard, D. J., & Dickson, S. V. (1999). Phonological awareness: Instructional and assessment guidelines. *Intervention in School and Clinic, 34*(5), 261-270.

Collins Block, C., & Pressley, M. (2001). *Comprehension instruction: Research-based best practices.* New York: Guilford Press.

Connor, S., & McIntrye, L. (2002). The effects of smoking and drinking during pregnancy. In J. D. Willms (Ed.), *Vulnerable children* (pp. 131-145). Edmonton: University of Alberta Press.

Conte, R. (1998). Attention disorders. In B. Wong (Ed.), *Learning about learning disabilities* (2nd ed.) (pp. 67-105). San Diego, CA: Academic Press.

Council for Exceptional Children. (1994). Statistical profile of special education in the United States. *Teaching Exceptional Children, 26*(Suppl.), 1-4.

D'Angiulli, A., & Siegel, L. (2003). Cognitive functioning as measured by the WISC-R: Do children with learning disabilities have distinctive patterns of performance? *Journal of Learning Disabilities, 36*(1), 48-58.

Eaton, H., & Coull, L. (2000). *Transitions to high school: Self-advocacy handbook for students with learning disabilities and/or attention deficit hyperactivity disorder*. Vancouver, BC: Eaton Coull Learning Group.

Edwards, L. (2003). Writing instruction in kindergarten: Examining an emerging area of research for children with writing and reading difficulties. *Journal of Learning Disabilities, 36*(2), 136-148.

Ehri, L. C. (2000). Learning to read and learning to spell: Two sides of a coin. *Topics in Language Disorders, 20*(3), 19-36.

Ehri, L. C., & Wilce, L. S. (1987). Does learning to spell help beginners learn to read words? *Reading Research Quarterly, 22*(1), 37-65.

Elliott, B. (1996). *A resource manual for teaching phonemic awareness skills in the early grades*. Saskatoon, SK: Author.

Ellis, E. S., & Larkin, M. J. (1998). Strategic instruction for adolescents with learning disabilities. In B. Wong (Ed.), L*earning about learning disabilities* (2nd ed.) (p.606). San Diego, CA: Academic Press.

Ericson, L., & Juliebö, M. (1998). *The phonological awareness handbook for Kindergarten and primary teachers*. Newark, DE: International Reading Association.

Feifer, S. G., & De Fina, P. (2000). *The neuropsychology of reading disorders*. Middletown, MD: School Neuropsych Press.

Fiedorowicz, C. (1999). *Neurobiological basis of learning disabilities: An overview*. Retrieved January 16, 2003, from http://www.ldac- laac.ca/english/research/neurobio.html.

Fry, E. B., Kress, J. E., & Fountoukidis, D. L. (1993). *The reading teacher's book of lists* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Fulk, B., & Stormont-Spurgin, M. (1995). Fourteen spelling strategies for students with learning disabilities. *Intervention in School and Clinic, 31*, 16-20.

Gersten, R., & Baker, S. (1999). *Reading comprehension instruction for students with learning disabilities: A research synthesis.* Retrieved January 17, 2003, from http://www.ld.org/research/ncld_reading_comp.cfm

Gersten, R., & Geva, E. (2003). Teaching reading to early language learners. *Educational Leadership, 60*(7), 44-49.

Goldsworthy, C. L. (2001). *Sourcebook of phonological awareness activities: Vol 2. Children's core literature*. San Diego, CA: Singular Publishing.

Graham, S., & Freeman, S. (1986). Strategy training and teacher-vs. student-controlled study conditions: Effects on LD students' performance. *Learning Disability Quarterly, 9*, 15-22.

Graham, S., & Harris, K. (2002). The road less traveled: Prevention and intervention in written language. In K. G. Butler & E. R. Silliman (Eds.), *Speaking, reading, and writing in children with language learning disabilities* (pp. 199-217). Mahwah, NJ: Lawrence Erlbaum Associates.

Graham, S., Harris, K. R., & Fink, B. (2000). Is handwriting causally related to learning to write? Treatment of handwriting problems in beginning writers. *Journal of Educational Psychology*, *92*, 620-633.

Graham, S., Harris, H., MacArthur, C., & Schwartz, S. (1998). Writing instruction. In B. Wong (Ed.), *Learning about learning disabilities* (2nd ed.) (pp. 391-423). San Diego, CA: Academic Press.

Graham, S., & Voth, V. (1990). Spelling instruction: Making modifications for students with learning disabilities. *Academic Therapy, 25,* 447-457.

Gresham, F. M. (1986). Conceptual and definitional issues in the assessment of children's social skills: Implications for classification and training. *Journal of Clinical Child Psychology, 15,* 3-15.

Hagemann, J. (2003). *Teaching grammar*. Boston, MA: Allyn and Bacon.

Hasbrouck, J. E., & Tindal, G. (1992). Curriculum-based oral reading fluency norms for Grade 2 through 5. *Teaching Exceptional Children, 24*(3), 41-44.

Heaton, P., & Mitchell, G. (2001). *Dyslexia students in need*. London: Whurr Publishers.

Heckelman R. G. (1986). N.I.M. revisited. *Academic Therapy*, *21,* 411-420.

Heiervang, E., & Hugdahl, K. (2003). Impaired visual attention in children with dyslexia. *Journal of Learning Disabilities, 36*(10), 68-73.

Henteleff, Y. (2002). *Full inclusion is not in the best interests of children with learning disabilities.* Retrieved January 16, 2003, from http://www.ldac-taac.ca/english/whatsnew/include/discuss.htm

Hock, M. F., Deshler, D. D., & Schumaker, J. B. (2000). *Strategic tutoring.* Lawrence, KS: Edge Enterprises.

Hulme, C., & Malatesha Joshi, R. (1998). *Reading and spelling development and disorders*. Mahwah, NJ: Lawrence Erlbaum Associates.

Idol L. (1987). Group story mapping: A comprehension strategy for both skilled and unskilled readers. *Journal of Learning Disabilities, 20,* 197-199.

Japel, C., Normand, C., Tremblay, R., & Willms, J. D. (2002). Identifying vulnerable children at an early age. In J. D. Willms (Ed.), *Vulnerable children* (pp. 105-119). University of New Brunswick: Author.

Jimenez, J., Ortiz, M., Rodrigo, M., Hernandez-Valle, I., Ramirez, G., Estevez, A., et al. (2003). Do the effects of computer-assisted practice differ for children with reading disabilities with and without IQ-achievement discrepancy*? Journal of Learning Disabilities, 36*(1), 34-47.

Jimenez, J., Siegel, L., & Lopez, M. (2003). The relationship between IQ and reading disabilities in English-speaking Canadian and Spanish children. *Journal of Learning Disabilities, 36*(1), 15-23.

Johns, J. L., & Lenski, S. D. (2001). *Improving reading: Strategies and resources* (3rd ed.) Dubuque, IA: Kendall/Hunt Publishing.

Juel, C., Biancarosa, G., Coker, D., & Deffes, R. (2003). Walking with Rosie: A cautionary tale of reading instruction. *Educational Leadership, 60*(7), 12-18.

Kibby M. Y., & Hynd, G. W. (2001). Neurobiological basis of learning disabilities. In D. P. Hallahan & B. K. Keogh (Eds.), *Research and global perspectives in learning disabilities* (pp.25-42). Mahwah, NJ: Lawrence Erlbaum Associates.

Kirby, J., Martinussen, R., & Beggs, P. (1996). *Causal path analysis of processes affecting early reading*. Toronto, ON: American Psychological Association.

Kosky, R., Silburn, S., & Zubrick, S. R. (1990). Are children and adolescents who have suicidal thoughts different from those who attempt suicide? *The Journal of Nervous and Mental Disease, 178,* 38-43.

Kosnik, C., & Duplak, D. (1997). *Nelson spelling: Teacher's resource*. Toronto, ON: ITP Nelson Canada.

Kotkin, R. A., Forness, S. R., & Kavale, K. A. (2001). Comorbid ADHD and learning disabilities: Diagnosis, special education, and intervention. In D. P. Hallahan & B. K. Keogh (Eds.), *Research and global perspectives in learning disabilities* (pp. 43-63). Mahwah, NJ: Lawrence Erlbaum Associates.

Learning Disabilities Association of Canada/Troubles d'apprentissage – Association canadienne. (1999). *Destination literacy: Identifying and teaching adults with learning disabilities*. Ottawa, ON: Author.

Learning Disabilities Association of Canada/Troubles d'apprentissage – Association canadienne. *Official definition of learning disabilities*. Retrieved January 16, 2003, from http://www.ldac-taac.ca/english/defined/.html.

Lennox, C., & Siegel, L. (1998). Phonological and orthographic processes in good and poor spellers. In C. Hulme & R. M. Malatesh Joshi (Eds.), *Reading and spelling: Development and disorders* (pp. 395-404). Mahwah NJ: Lawrence Erlbaum Associates.

Leong, C. K. (1998). Strategies used by 9 to 12 year-old children in written spelling. In C. Hulme & R. M. Malatesh Joshi (Eds.), *Reading and spelling: Development and disorders* (pp. 421-432). Mahwah NJ: Lawrence Erlbaum Associates.

Lindamood, C. H., & Lindamood, P. C. (1984). *Auditory discrimination in depth*. Austin, TX: PRO-ED.

Lindamood, C. H., & Lindamood, P. C. (1998). *Phoneme sequencing program (LIPS) for reading, spelling and speech*. Austin, TX: PRO-ED.

Lipson, M., & Wixson, K. (2003). *Assessment & instruction of reading and writing difficulty: An interactive approach*. Boston: Allyn & Bacon.

Lloyd, S. (1993). *The phonics handbook*. Chigwell, Essex, UK: Jolly Learning.

Lovett, M., & Steinbach, K. (1997). The effectiveness of remedial programs for reading disabled children of different ages: Does the benefit decrease for older children? *Learning Disability Quarterly, 20,* 189-210.

Lundberg, I. (2002). Twenty-five years of reading research as a basis for prediction of future development. In E. Hjelmquist & C. von Eurler (Eds.), *Dyslexia & literacy* (pp. 206-219). London: Whurr Publishers.

Lundberg, I., & Hoien, T. (2001). Dyslexia and phonolgy. In A. J. Fawcett (Ed.), *Dyslexia: Theory and good practice*. Philadelphia: Whurr Publishers.

Lyon, G. R. (1996a). The future of children: Special education for children with learning disabilities. *Learning Disabilities, 6*(1), 54-73.

Lyon, G. R. (1996b). Why Johnny can't read. Retrieved March 12, 2003, from http://www.ldonline.org/ld_indepth/reading/why_cant_decode.html.

Lyon, G. R. (1997). *Congressional testimony of G. Reid Lyon, Ph.D. on children's literacy*. Retrieved March 12, 2003, from: http//mirror.apa.org/ppo-OLD/lyon.html.

Lyon, G. R. (1998). *Overview of reading and literacy initiatives.* Retrieved March 7, 2003, from http://www.readbygrade3.com/lyon.htm/.

Lyon, G. R. (2001). *Measuring success: Using assessments and accountability to raise student achievement.* Retrieved March 12, 2003, from http://www.nrrf.org/lyon_statement3-01.htm.

Lyon, G. R., & Fletcher, J. M. (2001). *Early warning system*. Retrieved March 12, 2003, from http://www.educationext.org/20012/22.html.

Lyon, G. R., Fletcher, J. M., Shaywitz, S., Shaywitz, B., Torgesen, J. K., Wood, F. B., et al. (2001). Rethinking learning disabilities. In C. E. Finn Rotherham, A. J. Nokamson, & C. R. Nokamson (Eds.), *Rethinking special education for a new century* (pp. 259-287). Washington, DC: Progressive Policy Institute, Thomas B. Fordham Foundation.

Manitoba Education and Training. (1996). *Success for all learners: A handbook on differentiating instruction*. Winnipeg, MN: Author.

Mann, V. (1998). Language problems: A key to early reading problems. In B. Wong (Ed.), *Learning about learning disabilities* (2nd ed.) (pp.163-201). San Diego, CA: Academic Press.

Mather, N. (1998). *Accommodating students with reading and writing difficulties in the general education classroom.* Handouts.

Mather, N., & Goldstein, S. (2001). *Learning disabilties and challenging behaviors: A guide to intervention and classroom management*. Baltimore, MD: Paul H. Brookes Publishing.

McCarthy, R., & Warrington, E. (1990). *Cognitive neuropsychology: A clinical introduction*. San Diego, CA: Academic Press.

McCracken, G., & Walcutt, C. (1963, 1965, 1966, 1975). *Basic reading*. Philadelphia: Lippincott.

McCutcheon, D. (1988). "Functional automaticity" in children's writing: A problem of metacognitive control. *Written Communication, 5,* 306-324.

McGuinness, C., & McGuinness, G. (1998). *Reading reflex. The foolproof phono-graphix method for teaching your child to read*. New York: Fireside.

Miles, T. R. (1991). On determining the prevalence of dyslexia. In M. Snowling & M. Thomson (Eds.), *Dyslexia integrating theory and practice*. London: Whurr Publishers.

Moats, L. (1995). *Spelling development, disability, and instruction.* Baltimore: York Press.

Moats, L. (1998). Reading, spelling, and writing disabilities in the middle grades. In B. Wong (Ed.), *Learning about learning disabilities* (2nd ed.) (pp. 367-389). San Diego, CA: Academic Press.

Molfese, V., Modglin, A., & Molfese, D. (2003). The role of environment in the development of reading skills: A longitudinal study of preschool and school-age measures. *Journal of Learning Disabilities, 36*(1), 59-67.

Morrow, L. M., Gambrell, L. B., & Pressley, M. (2003). *Best practices in literacy instruction* (2nd ed.) New York: Guilford Press.

Murray, B. *Developing reading fluency: The reading genie.* Retrieved May 8, 2003, from http://www.auburn.edu/~murraba/spelling.html.

Murray, B. *How to study spelling words: The reading genie.* Retrieved May 8, 2003, from http://www.auburn.edu/~murraba/spelling.html.

National Association of School Psychologists. (2003). NASP r*ecommendations: LD eligibility and identification for IDEA reauthorization*. Bethesda, MD: Author.

National Institute of Child Health and Human Development. (1999). *Keys to successful learning: A national summit on research in learning disabilities*. Retrieved June 11, 2003, from http://www.ldonline.org/ld_indepth/reading/ncld_summit99.html.

National Institue of Child Health and Human Development. (2000). *Report of the national reading panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups.* (NIH Publication No. 00-4754). Retrieved January 21, 2003, from www.nichd.nih.gov/publications/nrppubskey.cfm.

New Brunswick Department of Education. (1999). *Resource for the identification and teaching of students with specific learning disability*. Fredericton, NB: Author.

Nopola-Hemmmi, J., Myllyluoma, B., & Voutilainen, A. (2002). Familia dyslexia: Neurocognitive and genetic correlation in a large Finnish family. *Developmental Medicine & Child Neurology*, *44,* 580-586.

O'Connor, R. (2000). Increasing the intensity of intervention in Kindergarten and First Grade. *Learning Disabilities Research & Practice, 15*(1), 43-54.

Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 2,* 117-175.

Palombo, J. (2001). *Learning disorders and disorders of the self in children and adolescents*. New York: W.W. Norton.

Payne, T., & Turner, E. (1999). *Dyslexia: A parents' and teachers' guide*. Clevedon, North Somerset, UK: Multilingual Matters.

Pavri, S., & Monda-Amaya, L. (2000). Loneliness and students with learning disabilities in inclusive classrooms: Self-perceptions, coping strategies, and preferred interventions. *Learning Disabilities Research and Practice, 15*(1), 22-33.

Pinnell G. S., & Fountas, I. C. (1998). *Word matters: Teaching phonics and spelling in the reading/writing classroom*. Portsmouth, NH: Heinemann.

Polloway, E., Patton, J., & Serna, L. (2001). *Strategies for teaching learners with special needs*. Upper Saddle River, NJ: Merrill.

Pressley, M. (2000). What should comprehension instruction be the instruction of? In M. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research, Volume 3* (pp.545-560).

Reithaug, D. (2002). *Orchestrating success in reading*. West Vancouver, BC: Stirling Head Enterprises.

Rosner, J. (1975). *Helping children overcome learning difficulties*. New York: Walker & Co.

Rourke, B. (1989). *Nonverbal learning disabilities. The syndrome and the model*. New York: Guilford Press.

Rourke, B. (2001). Learning disabilities: A neuropsychological perspective. In C. E. Walker & M. C. Roberts (Eds.), *Handbook of clinical child psychology*. New York: Wiley.

Rourke, B. & Del Dotto, J. (2001). *Learning disabilities: A neuropsychological perspective*. New York: Sage Publications.

Salinger, R. (2003). Helping older, struggling readers. *Preventing School Failure, 47*(2), 79-85.

Samuels, S. J. (1979). The method of repeated readings. *Reading Teacher, 32,* 403-408.

Saskatchewan Education. (1992). *The adaptive dimension in core curriculum*. Regina, SK: Author.

Saskatchewan Education. (1997). *English language arts: A curriculum guide for the middle level (Grades 6-9)*. Regina, SK: Author.

Saskatchewan Education. (1998). *English language arts 20: A curriculum guide for the secondary level.* Regina, SK: Author.

Saskatchewan Learning. (2000a). *Early literacy: A resource for teachers*. Regina, SK: Author.

Saskatchewan Learning. (2000b). *Creating opportunities for students with intellectual or multiple disabilities*. Regina, SK: Author.

Saskatchewan Learning. (2002a). *Children's services policy framework*. Regina, SK: Author.

Saskatchewan Learning. (2002b). *English language arts. A curriculum guide for the elementary level (K-5)*. Regina, SK: Author.

Saskatchewan Learning. (2003a). *Core curriculum components and initiatives: Important understandings*. Regina, SK: Author.

Saskatchewan Learning. (2003b). *English language arts: A curriculum guide for the middle level (Grades 6-9).* Draft. Regina, SK: Author.

Saskatchewan Learning. (2003c). *The adaptive dimension: Important understandings.* Draft. Regina, SK: Author.

Saskatchewan Professional Development Unit. (1996). *Creating an inclusive classroom: Integrating students with special needs*. Saskatoon, SK: Author.

Saskatoon Catholic Schools. (2001). *Learning assistance teacher handbook. Draft*. Saskatoon, SK: Author.

Schloss, P. J., Smith, M. A., & Schloss, C. N. (2001). *Instructional methods for secondary students with learning and behavior problems (*3rd ed.). Boston: Allyn and Bacon.

Scott, C. M. (2000). Principles and methods of spelling instruction: Applications for poor spellers. *Topics in Language Disorders, 20*(3), 66-82.

Share, D., & Silva, P. (2003). Gender bias in IQ-discrepancy and post-discrepancy definitions of reading disability. *Journal of Learning Disabilities, 36(*1), 4-11.

Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level*. New York: Random House.

Siegel, L. (2003). IQ-discrepancy definitions and the diagnosis of LD: Introduction to the special issue. *Journal of Learning Disabilities, 36*(1), 2-3.

Simpson, J., Everatt, J., & Cheney, K. (2001). *Phonological skills and naming speed as predictors of future literacy deficits.* Retrieved May 28, 2003, from http://www.bdainternationalconference.org/presentations/fri_s5_b_4.htm.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.

Snowling, M., & Stackhouse, J. (1996). *Dyslexia, speech, and language: A practitioner's handbook*. London, ON: Whurr.

Sousa, D. (2001). *How the special needs brain learns*. Thousand Oaks, CA: Corwin Press.

Sridhar, D., & Vaughn, S. (2001). Social functioning of students with learning disabilities. In D. P. Hallahan & B. K. Keogh (Eds.), *Research and global perspectives in learning disabilities* (pp. 65-91). Mahwah, NJ: Lawrence Erlbaum Associates.

Stage, S., Abbott. R., Jenkins, J., & Berninger, V. (2003). Predicting response to early reading intervention from verbal IQ, reading-related language abilities, attention ratings, and verbal IQ-word reading discrepancy: Failure to validate discrepancy method. *Journal of Learning Disabilities, 36*(1), 24-33.

Stanovich, K. E. (1993). Romance and reality. *Reading Teacher, 47*(4), 280-91.

Stanovich, K. E. (1999). The sociopsychometrics of learning disabilities. *Journal of Learning Disabilities, 32*(4), 350-372.

Stanovich, K. E., (2000*). Progress in understanding reading: Scientific foundations and new frontiers*. New York: Guilford Press.

Sternberg, R., & Spear-Swerling, L. (1999). *Perspectives on learning disabilities: Biological, cognitive, contextual*. Boulder, CO: Westview Press.

Stevens, L. M., & Werkhoven, W. V. (2001). Learning disabilities in the Netherlands. In D. P. Hallahan & B. K. Keogh (Eds*.), Research and global perspectives in learning disabilities* (pp. 273-291). Mahwah, NJ: Lawrence Erlabaum Associates.

Stone, J. (2002). *Animated literacy*. La Mesa, CA: J. Stone Creations.

Strichart, S., & Mangrum, C. (2002). *Teaching learning strategies and study skills to students with learning disabilities, attention deficit disorders, or special needs*. Boston: Allyn and Bacon.

Strickland, D. S. (1998). *Teaching phonics today: A primer for educators*. Newark, DE: International Reading Association.

Swanson, L. (1999). *Intervention research for students with learning disabilities: A meta-analysis of treatment outcomes.* Retrieved January 17, 2003, from http://www.ld.org/research/ncld_reading_comp.cfm.

Swanson, L., Cooney. J., & O'Shaughnessy, T. (1998). Learning disabilities and memory. In B. Wong, *Learning about learning disabilities* (2nd ed.) (pp. 107-162). San Diego, CA: Academic Press.

Tankersley, K. (2003). *The threads of reading: Strategies for literacy development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Temple, E., Deutsch, G., Poldrack, R., Miller, S., Talla, P., Merzenich, M., et al. (2003). *Neural deficits in children with dyslexia ameliorated by behavioral remediation: Evidence from functional MRI*. Retrieved February 26, 2003, from http://www.pnas,org/cgi/content/abstract/0030098100v1.

Thompson, S. (1996). *Nonverbal learning disorders*. Retrieved October 16, 2000, from http://www.ldonline.org/ld_indepth/general_info/nld,html.

Thompson, S. (1997). *The source for nonverbal learning disorders.* Moline, IL: LinguiSystems.

Torgesen, J., Wagner, R., Rashotte, C. Alexander, Conway, T. (1997). Prevention and remediaton of severe reading disabilities: Keeping the end in mind. *Scientific Studies of Reading*, *1*(3), 217-234.

Torgesen, J. K. (1998). *Catch them before they fall: Identification and assessment to prevent reading failure in young children*. Retrieved April 3, 2003, from http:///www.ldonline.org/ld_indepth/reading/torgeson_catchthem.html.

Toregsen, J. (2000). Individual differenences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice, 15*(1), 55-64.

Torgesen, J., & Mathes, P. G. (2000). *A basic guide to understanding, assessing, and teaching phonological awareness*. Austin, TX: PRO-ED.

Treiman, R. (1997). Can children and adults focus on sound as opposed to spelling in a phoneme counting task? *Developmental Psychology, 33*(5), 771-780.

Treiman, R. (1998). Why spelling? The benefits of incorporating spelling into beginning reading instruction. In J. L. Metsals & L. C. Ehri (Eds.), *Word recognition in beginning literacy* (pp. 289-313). Mahwah, NJ: Lawrence Erlbaum Associates.

Viholainen, H., Ahonen, T., Cantell, M., Lyytinen, P., & Lyytinen, H. (2002). Development of early motorskills and language in children at risk for familial dyslexia. *Developmental Medicine & Child Neurology, 44,* 761-769.

Wanzek, J., Bursuch, B., & Dickson, S. (2003). Evaluating the suitability of phonological awareness programs for children who are at risk. *Teaching Exceptional Children, 5*(4), 28-34.

Weinstein, L. (2003). *Reading David: A mother and son journey through the labyrinth of dyslexia*. New York: Berkley Publishing.

Whitney, R. V. (2002). *Bridging the gap: Raising a child with nonverbal learning disorder*. New York: Berkley Publishing.

Wilkinson, A., Stratta, L., & Dudley, P. (1974). *The quality of listening*. London, UK: Macmillan.

Willms, J. D. *The level of literacy in a society is a key social and economic indicator*. Retrieved March 12, 2003, from http://www.statcan.ca/english/freepub/89F0116XIE/high016.htm.

Willows, D. (1998). Visual processes in learning disabilities. In B. Wong (Ed*.), Learning about learning disabilities* (2nd ed.) (pp. 203-236). San Diego, CA: Academic Press.

Wimmer, H., & Mayringer, H. (2002). The reading rate deficit of German dyslexic children and surface dyslexia. In E. Hjelmquist & C. von Eurler (Eds.), *Dyslexia & literacy* (pp. 117-125). London: Whurr Publishers.

Winzer, M. (1996). *Children with exceptionalities in Canadian classrooms*. Scarborough, ON: Allyn and Bacon Canada.

Wong, B. (1998). *Learning about learning disabilities* (2nd ed.). Toronto: Academic Press.

Wong B., & Hutchinson, N. (2001). Learning disabilities in Canada. In D. P. Hallahan & B. K. Keogh (Eds.), *Research and global perspectives in learning disabilities* (pp. 197-215). Mahwah, NJ: Lawrence Erlbaum Associates.

Wood, J. (1996). *Teaching the hard to reach*. Virginia: Commonwealth University.

Yopp. (1995). *Yopp-Singer test of phoneme segmentation*. http://www.selu.edu/academics/education/tec/yopp.html.

Internet Resources

The International Dyslexia Association

http://www.interdys.org/serlet/compose?section_id=5

This site provides information about dyslexia for students, parents, and educators. Also available are research based articles, information on assistive technology, and a list of international conferences.

LDOnline: The Interactive Guide to Learning Disabilities – Giving Your Child A Better Chance to Succeed

http://www.ldonline.org

This site features research articles on learning disabilities.

The Learning Disabilities Association of Canada/Troubles d'apprentissage – Association canadienne

http://www.ldac-taac.ca

This national site provides general and professional information. Links to scholarships, research projects, and other resources are available.

Information and Inspiration for Parents and Teachers of Children with Learning Disabilities by Richard Lavoie

http://www.ricklavoie.com

This web site provides research articles, list of upcoming workshops, videos, and books. Includes recommended links.

Suggestions de ressources pour l'immersion

Adams, M. J., Foorman, B. R., Lundberg, I., & Beeler, T. (2000). *Conscience phonologique* (B. Stanké, adaptation française). Montréal-Toronto: Chenelière/Mcgraw-Hill.

Alberta Education. (1996). Coli: Annexes. Edmonton, AB: Author.

Alberta Education. (1996). *Coli: Ensemble d'outils d'observation et d'intervention en lecture.* Edmonton, AB: Author.

Armstrong, T. (2002). *Déficit d'attention et hyperactivité: Stratégies pour intervenir autrement en classe* (G. Sirois, traduction et adaptation). Montréal-Toronto: Chenelière/Mcgraw-Hill.

Attfield, P. (1989). *French immersion and special education: Issues and implications for school administrators.* Unpublished Master's project, University of Saskatchewan, Saskatoon, SK.

Burnett, Wendy J. (1990). *The hidden handicap: French immersion and children with learning disabilities: So you want your child to learn French!* (2nd ed.). Alberta: Canadian Parents for French.

Centre franco-ontarien de ressources pédagogiques. (1998). *Intervention précoce en lecture – Module 1*. Vanier, ON: Author.

Centre franco-ontarien de ressources pédagogiques. (1998). *Intervention précoce en lecture – Module 2.* Vanier, ON: Author.

Centre franco-ontarien de ressources pédagogiques. (1998). *Intervention précoce en lecture – Module 3.* Vanier, ON: Author.

Clay, M. M. (2003). *Le sondage d'observation en lecture-écriture* (G. Bourque, et al., adaptation et traduction). Montréal-Toronto: Chenelière/Mcgraw-Hill.

Cole, Y., & Zampese, I. (1987). *Trousse pour l'orthopédagogue.* Regina, SK: Saskatchewan Education.

Daigneault, G. & Leblanc, J. (2003). *Des idées plein la tête: Exercices axés sur le développement cognitif et moteur*. Montréal: Chenelière/McGraw-Hill.

Demers, Daniel (2000). *A changing perspective: Meeting the needs of all students, French immersion in Alberta* (Building the Future: Leading The Way, May 2000, Conference Report). Alberta: Canadian Parents for French.

Freeman, S., & Dake, L. (2000). *Apprends-moi le langage: Manuel d'apprentissage du langage pour les enfants atteints d'autisme, du syndrome d'Asperger et d'autres troubles du développement* (M. Miginiac, traduction). Langley, BC: SKF Books.

Giroux, Luc. (1993). La préparation socio-affective pour l'intégration des élèves ayant des difficutés d'apprentissage. *Vie Pédagogique, 86*, 47-48.

Koechlin, C. & Zwaan, S. (2002). *Chercher, analyser, évaluer: Activités de recherche méthodologique* (L. Dore & S. Rosenberg, adaptation française). Montréal: Chenelière/McGraw-Hill.

Kondziela, A. (1988). Is immersion for everyone? *Le Journal de L'immersion, 11*(3), 7-8.

Leblanc, J. (2000). *Le plan de rééducation individualisé (PRI): Une approche prometteuse pour prévenir le redoublement.* Montréal-Toronto: Chenelière/Mcgraw-Hill.

Manitoba Education, Training and Youth (Éducation, Formation professionnelle et Jeunesse Manitoba). (1997). *Le succès à la portée de tous les apprenants: Manuel concernant l'enseignement différentiel*. Winnipeg: MB: Author.

Nadon, Y. (2002). *Lire et écrire – en première année et pour le reste de sa* vie. Montréal: Chenelière/McGraw-Hill.

Robillard, C., Gravel, A., & Robitaille, S. (2002). *Complètement métho: Trucs et astuces pour apprendre à apprendre.* Laval, PQ: Groupe Beauchemin.

Rossier, M.J. (1998). *Rééducation des troubles de l'écriture (Éd. rév.).* Vanier, ON: Centre francophone-ontarien des ressource spédagogique.

Rousseau, N. (1999). A French immersion learning disabilities program: Perspectives of students, their parents and their teachers. *Mosaic, l.6*(3), 16-26.

Saskatchewan Teachers' Federation. (1996). *Honoring diversity in the classroom: Challenges and reflections.* Saskatoon, SK: Author.

Sousa, D. A. (2002). *Un cerveau pour apprendre: Comment rendre le processus enseignement-apprentissage plus efficace* (G. Sirois, adaptation et traduction). Montréal: Chenelière/McGraw-Hill.

Stanké, B. (2001). *L'apprenti lecteur: Activités de conscience phonologique.* Montréal-Toronto: Chenelière/Mcgraw-Hill.

Thériault, C., & Jacques, S. (1992). L'orthopédagogie sous toutes ses formes. *Contact, 11*(3), 11-17.

Therriault, S. (1997). Trousse de référence des interventions pédagogiques. *Le Bulletin de Service, APFS, 26*(2), 16-17.

Touzin, C., Anctil, M., Giroul, F., & La Belle, S. (2001). *Clac-sons: A*. Montréal-Toronto: Guérin.

Wiss, C. A. (1991). Are you having problems? An invitation to dialogue with a panel of experts. *Le Journal de L'immersion, 14*(2), 31-32.

Wormeli, C. T. & Ardanaz, N. (1987). *Canada F.I.A.T. (Canada French Immersion Achievement Test)*. Vancouver: University of British Columbia, Faculty of Education, Education Clinic.

Plusieurs articles et outils dans *Vivre le primaire, 16(2).* (2003).

Technologie

Kidspiration et Inspiration

Logiciels pour aider les élèves à écrire, à développer les idées et à organiser leurs idées … beaucoup de schémas. Peuvent-être personnalisés par l'enseignant selon le besoin des élèves et même pour mettre les directives et questions en français – il n'y a pas encore une version française.

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