Province of British Columbia

Supporting Students with Learning Disabilities

A Guide for Teachers

September 2011

ABOUT THIS BOOK

Supporting Students with Learning Disabilities: A Guide for Teachers was created through a partnership between the Ministry of Education and the British Columbia School Superintendent's Association in collaboration with educators who have expertise in special education, particularly in the area of learning disabilities. It builds upon the document *Special Education Services: A Manual of Policies, Procedures and Guidelines*, which is posted on the Ministry of Education website at: www.bced.gov.bc.ca/specialed/ppandg.htm

The *Guide* is founded on the principles of early intervention (identifying challenges early, intervening robustly, and using evidence-based practices) and response to intervention (an ongoing cycle of assessment, planning, intervening, and monitoring within a continuum of supports, from school-wide to small group to individual interventions) to help learners who are struggling.

This guide is intended as a starting point for teachers exploring what they might do to support students with learning disabilities.

This guide

- identifies characteristics of students with learning disabilities
- provides information about effective teaching and assessment strategies for students with learning disabilities
- provides support for the collaborative planning process
- includes tools to help teachers.

The appendices at the end of the document contain planning tools, quick references to strategies, resource lists, and a glossary of useful terminology.

Orange-highlighted text throughout the guide provides direct links to the terminology in the glossary.

ACKNOWLEDGEMENTS

A number of people contributed to creating this resource. The Ministry of Education is especially appreciative of the partnership with the British Columbia School Superintendents Association in creating this resource. We would also like to acknowledge the following organizations for sharing their expertise and insight to ensure *Supporting Students with Learning Disabilities: A Guide for Teachers* provides meaningful suggestions for supporting students with learning disabilities in BC.

BC Council of Administrators of Special Education

BC Principals' & Vice-Principals' Association

BC Teachers' Federation

Learning Assistance Teachers' Association

Learning Disabilities Association of British Columbia

Special Education Association of British Columbia

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SECTION 1 | WHAT IS A LEARNING DISABILITY?

The definition of learning disability has varied over time, across jurisdictions and among disciplines. In 2002, the Ministry of Education adopted the following definition of learning disabilities, consistent with the definition adopted by the Learning Disabilities Association of Canada and the BC Association of School Psychologists.

> *Learning Disabilities refer to a number of conditions that might 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 disabilities.*
>
> *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, attention and executive functions (e.g. planning and decision making).*
>
> *Learning disabilities vary 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)*
>
> *mathematics (e.g., computation, problem solving)*
>
> *Learning disabilities may also involve difficulties with organizational skills, social perception, social interaction and perspective taking.*
>
> *Learning disabilities are life-long. 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 that is maintained only by unusually high levels of effort and support.*

Learning disabilities are due to genetic and/or neurological factors or injury that alters brain function in a manner that affects one or more processes relate to learning. These disorders are not due primarily to hearing and/or vision problems, social-economic factors, cultural or linguistic differences, lack of motivation, inadequate or insufficient instruction, although these factors may further complicate the challenges faced by individuals with learning disabilities. Learning disabilities may co-exist with other disorders such as attention, behavioural or emotional disorders, sensory impairments, or other medical conditions.

Learning disabilities can interfere with a student meeting his or her intellectual and life potential. Learning disabilities result in unexpected academic underachievement. Learning disabilities may impact the acquisition, organization, understanding, retention and/or use of information.

Learning disabilities are complex and go beyond the stereotypical perceptions of the disorder as simply reading difficulties, or letter reversals. They vary considerably, both in terms of the functions they impact and the severity of the impact experienced. The appropriate accommodations depend upon the individual's strengths as well as his/her specific difficulties.

Frequently, learning disabilities are not detected before children start school. Many students with learning disabilities display no signs of difficulty, except when they attempt the specific academic tasks that challenge their particular area of cognitive processing difficulty.

Unlike many other disabilities, identifying a learning disability poses some particular challenges since processing disorders are assessed through inference based on student responses. It might not be obvious that a student's learning difficulties are due to a learning disability.

The specific needs of individuals with learning disabilities change and evolve throughout their lifetime. This does not mean the disability no longer exists, but by varying the activities they undertake and the strategies they develop to address their particular learning disabilities, students may experience different challenges at different times.

Prevalence of Learning Disabilities

Although estimates of their prevalence vary according to the definition and diagnostic criteria used in to identify them, learning disabilities are relatively common.

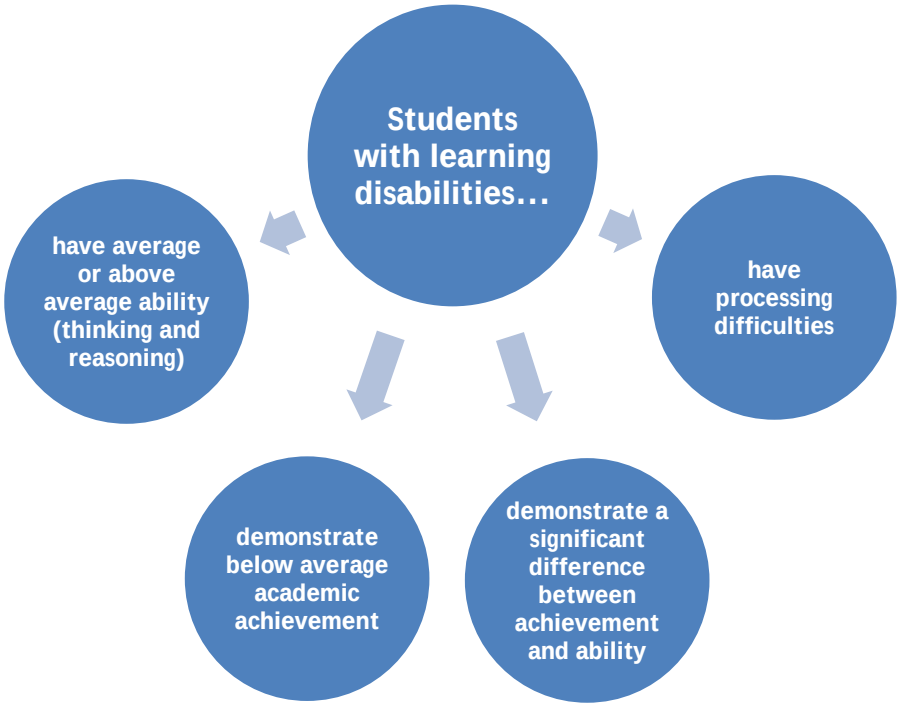
In BC, the number of students identified as receiving services for learning disabilities is reported to be about three percent of the student population across school districts. In this province, boards of education only report students as having a learning disability when they are receiving services.

Students with mild to moderate learning disabilities will often have their learning needs met within regular learning environments without supplementary special education services, particularly where learning environments and instructional strategies are in place that accommodate a range of learning differences, or when students have developed strategies that enable them to independently compensate for their learning disabilities. If students do not receive special services, they are not reported to the Ministry of Education by boards or reflected in BC's provincial learning disability statistics.

Common Features

Although there is considerable diversity among individuals with learning disabilities, the literature consistently identifies some common characteristics of learning disabilities.

Recognizing a Student with a Learning Disability



Relative to their peers, students with learning disabilities are often

- less engaged in learning tasks
- less confident in their ability to learn
- less willing to take risks in learning situations
- unable to cope with multiple instructions
- poorly organized in both thoughts and work habits
- frustrated with difficult work tasks
- discouraged by their lack of success

Adapted from *Teachers Make the Difference: Teaching Students with Learning Disabilities at Middle School and Secondary School Levels.* Ministry of Education Saskatchewan. *(2009)*

Due to individual differences, no single description or profile can represent all individuals with learning disabilities. Since learning disabilities occur along a spectrum of severity, people can experience mild to significant impacts.

Students with learning disabilities have average to above average intelligence and potential, and while they may demonstrate unexpected underachievement compared to their abilities, they can experience academic success and lead happy, successful lives.

Self-advocacy helps students gain higher self-perceptions, stronger self-esteem and independence. Students are most likely to experience success in secondary and post-secondary studies if they understand and know how to explain their disabilities, can describe the accommodations that support their learning and engage with an adult to support them in navigating their school experience.

Early identification and intervention, appropriate adaptations and supports are keys to success. If a student's performance is assessed in the absence of appropriate adaptations, the assessment may not accurately measure the student's knowledge.

Success for a student with learning disabilities does not mean the disorder disappears. It means that the student makes effective use of strengths and compensatory strategies to accomplish personal and educational goals.

Learning Disability and Behaviour

Teachers should explore the possible existence of a learning disability when a student who appears to be capable has a history of struggling with specific components of school and/or begins to demonstrate behavioural difficulties.

Students with undetected learning disabilities might demonstrate undesirable behaviour for a variety of reasons. They might feel angry, sad, lonely, frustrated, or hopeless as a result of focusing on their difficulties. Frustration might arise out of the students' level of performance compared to their level of actual ability, lack of understanding of why they struggle to perform the task or sometimes the inability to communicate in an appropriate way.

A student might also exhibit inappropriate behaviour in order to avoid the frustrating task itself. At other times behaviour might result from poor self-esteem, connected to the student's focus on what he/she can't do; or a student might quit trying, believing that no matter how hard they try they will never attain success. Other behaviour might be the result of an emotional disturbance.

However the learning difficulty presents itself, students with learning disabilities can experience success in school if appropriate supports are provided. It is important to focus on early identification and remediation and utilize research-based, effective strategies to assist students before behavioural or emotional issues emerge.

See Emotions and Learning (page 50) and Self Regulation (page 92) for strategies to assist with behaviour.

Also see:

Web

BC Positive Behaviour Support Website	www.bcpbs.wordpress.com
Teaching Students with Learning and Behavioural Differences	www.bced.gov.bc.ca/specialed/landbdif/toc.htm
FRL: Family Resource Library at BC Children's Hospital	www.bcchildrens.ca/frl
BC Children's Hospital Mood Disorders Clinic	www.bcchildrens.ca/Services/ChildYouthMentalHlth/ProgramsAndServices/MoodAnxietyDisorderClinic/default.htm
Caring for Kids. Canadian Paediatric Society	www.caringforkids.cps.ca
Anxiety BC	www.anxietybc.com
Collaborative Mental Health Care in Canada	www.shared-care.ca/toolkits

Attention Difficulty

Some students with learning disabilities have difficulties focusing, sustaining and shifting attention. These difficulties might result from physical discomfort, emotional issues, interest and motivational factors or from challenges with self-regulation. Persistent patterns of difficulties such as inattention, hyperactivity, or impulsivity, or any combination of these, might be the result of a biologically based condition known as Attention Deficit Hyperactivity Disorder. ADHD is a regulatory problem of attention, activity level and impulse control, and it can have a significant impact on a student's ability to learn.

A student with self regulation or attention challenges might exhibit difficulties

- organizing supplies, managing time or categorizing and/or classifying information
- managing social interactions, taking turns, refraining from calling answers out, controlling emotions, attaining, maintaining and changing levels of arousal
- developing and using strategies to address academic challenges, and making and following through with a plan or task
- understanding personal strengths and weaknesses
- maintaining thought patterns and managing sensory stimulation, e.g. fidgeting, making noises (tapping etc.) or touching people/things.

See Organization (page 90), Self Regulation (page 92), Learning Strategies (page 83), and Emotions and Learning (page 50) for strategies to assist students with attention difficulties.

Speech and Language Impairment

The American Speech-Language-Hearing Association states that learning disabilities can be a cause of speech-language difficulties. A language disorder is defined as "impaired comprehension and/or use of spoken, written, and/or other symbol systems. The impairment might involve; the form of language, the content of language and the function of language in communication in any combination." (American Speech-Language-Hearing Association (2005)

Language development has a profound impact on communication, both expressive (the ability to send messages) and receptive (the ability to understand messages), in both verbal and written form.

Some of the speech and language related disorders commonly referred to in educational circles include: phonological processing disorder (see page 60), central auditory processing disorder (see page 17), expressive language disorder (see page 71), receptive language processing disorder (see page 65) and language delay.

Strategies for students with these disorders will include not only those that address a learning disability but also the consultation and/or services of a speech/language pathologist.

For more information about speech and language disorders and their relationship to learning problems, see Chapter Two of Pierangelo, R. & Giuliani, G. *The educator's diagnostic manual of disabilities and disorders.* Jossey-Bass. San Francisco, CA. (2007).

Memory Difficulty

Students with learning disabilities might demonstrate problems with one or more types of memory.

Working memory is a component of memory in which information is stored and/or manipulated for brief periods of time in order to perform another activity. It enables learners to hold on to pieces of information until the pieces blend into a full thought or concept. Working memory is important for a range of activities, such as controlling attention, problem-solving, and listening and reading comprehension. A student with working memory difficulties might have forgotten the first part of an instruction by the time the full instruction has been given. Or the student might be unable to recall the beginning of a sentence by the time he/she has read to the end. Some students will be unable to hold material in working memory in order to complete a task or understand a concept.

Short term Memory is a component of memory where information is stored briefly until it is either forgotten or integrated into long term memory. It is similar to working memory, however more passive as information is not manipulated. A student with short term memory challenges might not be able to remember information long enough to copy it down from one place to another.

Long-term memory refers to information that has been stored and is available over a long period of time. Effective short-term memory is critical to move information into long-term memory. A student with long-term memory difficulties might find it necessary to review and study information over a longer period of time in order for it to become part of his or her general body of knowledge. Rehearsal, repetition and association are well-known paths to improving long-term memory.

See Learning Strategies (page 83) and Comprehension (page 62) for strategies to address memory difficulties.

Types of Learning Disabilities

Although students with learning disabilities may share some common attributes, there are many different types of learning disabilities. Some of the most common learning disabilities are outlined below. It should be pointed out that, in many cases, a student will demonstrate qualities which indicate a disability in a number of different areas, not just one.

Important note: *The material here is descriptive only, not to be used for diagnostic purposes.*

Arithmetic Disorder

Arithmetic Disorder (Dyscalculia) is generally characterized by difficulty in learning or comprehending mathematics. It affects a person's ability to understand and manipulate numbers or understand numbers themselves.

A student with arithmetic disorder might have difficulty with

- organizing problems on the page, keeping numbers lined up
- following through on multiple step calculations, such as long division
- transposing numbers accurately on paper or on to a calculator, such as turning 56 into 65
- distinguishing right from left
- using the mathematical calculation signs, confusing basic operations and facts

- applying logic but not accurately completing calculations
- understanding and solving word problems
- being hesitant, refusing or experiencing anxiety when asked to engage with mathematical concepts
- remembering and applying mathematical functions in various ways
  - recalling math rules, formulas or sequences
  - being able to perform an operation one day but not the next
  - understanding abstract concepts like time and direction
  - checking change, reading analog clocks, keeping score during games, budgeting, estimating
  - remembering dance step sequences or rules for playing sports
  - visualizing the face of a clock or places on a map
  - recalling dates, addresses, schedules and sequences of past or future events.

See Numeracy and Mathematics (page 86) for strategies to address Arithmetic Disorder.

Writing Disorder

Writing Disorder (Dysgraphia) is generally characterized by distorted writing in spite of thorough instruction.

A student with writing disorder might experience some of the following difficulties:

- inconsistent and sometimes illegible writing; e.g., mixing print and cursive, upper and lower case, irregular sizes, shapes or slant of letters
- inconsistent positioning on the page, with respect to lines and margins
- unfinished words or letters, omitted words and many spelling mistakes
- fine motor difficulty, such as inability to reproduce letters or remembering motor patterns
- inconsistent speed in writing, either extremely laboured or quick
- writing that doesn't communicate at the same level as the student's other language skills

- odd grip, unusual wrist, body or paper position
- pain or muscle spasms while writing
- talking to self while writing, or carefully watching the hand while writing
- refusal, reluctance or extreme stress when asked to complete a written task.

See Expressive Language Processing (page 71) and Writing (page 69) for strategies to address Writing Disorder (spelling, motor control, planning, drafting and editing).

Reading Disorder

Reading Disorder (Dyslexia) is generally characterized by difficulties with the alphabet, word recognition, decoding, spelling, and comprehension.

A student with reading disorder might have difficulty with the following:

- naming, learning the sequence of or printing the alphabet
- memorizing non-phonetic words
- reading words that cannot be translated into a mental picture (and, a, the, etc.)
- sound/symbol correspondence, or sequencing of letters to create a word
- reading aloud without repeated mistakes and pauses
- comprehending reading material, grasp of vocabulary
- reading numbers and confusing math symbols
- organizing what he or she wants to say verbally, or not being able to think of the word needed
- retelling a story in sequence of events
- finding a word in the dictionary, naming the days of the week and months of the year
- understanding inferences, jokes or sarcasm.

See Receptive Language Processing (page 65), Phonological Processing (page 60) and Learning to Read (page 54) for strategies to address Reading Disorder (decoding, fluency and comprehension).

Spelling Disorder

Spelling disorders (Dysorthographia) are generally characterized by difficulties with spelling. They stem from weak awareness or memory of language structures and letters in words.

A student with a spelling disorder might present some of the following difficulties, often in conjunction with poor skills in reading and/or arithmetic:

- arbitrary misspellings, such as addition, omission and/or substitution of letters in words
- reversal of vowels and/or syllables
- slow, hesitant or poor written expression
- errors in conjugation and grammar
- phonetic spelling of non-phonetic words
- misunderstanding the correspondence between sounds and letters.

See Spelling (page 73) for strategies to address Spelling Disorder.

Auditory Processing Disorder

Auditory processing disorder describes a variety of disorders that affect the way the brain processes or interprets what it hears even though the student might have adequate hearing.

A student with an auditory processing disorder might have difficulty with the following:

- listening, particularly where there is background noise or when attention is divided
- processing information if the speaker is speaking quickly
- understanding what is said
- recalling what they have heard or following a sequence of directions
- recognizing and interpreting distinct sounds or attributing meaning to sounds in words
- using phonemes incorrectly when speaking
- applying phonics, encoding (spelling) and decoding (sounding out) words
- reading comprehension, vocabulary and basic literacy.

See Decoding (page 54), Spelling (page 73), Organization (page 90), Learning to Read (page 54), and self regulation (page 92) for strategies associated with addressing aspects of Auditory Processing Disorder.

Visual Processing Disorder

A visual perception disorder involves difficulty making sense of what is seen, even though vision is intact.

A student with visual processing disorder might find the following tasks challenging:

- recalling and using visual information, e.g. remembering the order or meaning of symbols, words or pictures
- differentiating colours, letters or numbers that are similar
- recognizing objects or parts of an object
- noting and comparing features of different items
- distinguishing a particular shape from its background and/or understanding how objects are positioned in relation to one another
- attending when there is competing visual information
- perceiving distances, depth or movement
- accurately identifying information from books, pictures, charts, graphs and maps
- organizing essays with information from different sources into one cohesive document, or solving math problems
- writing within margins or on lines, or aligning numbers in math problems
- fine motor tasks, such as writing or copying
- tracking and/or reading with speed and precision.

See Decoding (page 54), Fluency (page 57), Phonological Processing (page 60), Comprehension (page 62) Receptive Language Processing (page 65), Motor Control (page 75) and Organization (page 90) for strategies to assist students with Visual Processing Disorder.

Sensory Integration (or Processing) Disorder

Sensory Integration Disorder is associated with the ability to integrate information from the body's sensory systems (visual input, auditory input, olfactory input, taste, tactile input, vestibular input (balance/movement), and proprioceptive input (position). Information from the senses are not interpreted in ways that it can be used efficiently by the brain.

A student with a sensory integration disorder might present some of the following difficulties:

- extremely over- or under-reactive to senses, such as touch, sound, light, smells or anything put into the mouth
- strong over- or under-responsiveness to movement: e.g. avoids movement or craves it, startles easily, seems clumsy, careless or very physical
- having a strong attraction to or dislike for getting messy
- knowing where one's body is in space
- knowing how much physical pressure to apply to something
- unusually high or low activity level, or rapidly moving from one to the other
- calming oneself or unwinding
- social emotional problems, e.g. easily frustrated, tantrums, acting out, poor self concept,
- making smooth transitions
- being easily distracted
- carrying out small or large motor tasks
- determining physical characteristics of objects
- putting ideas into words, delays in speech/language development, articulation .

See Self Regulation (page 92), Emotions and Learning (page 50), Receptive Language Processing (page 65), Motor Control (page 75) and Organization (page 90) for strategies to assist students with Sensory Integration (or Processing) Disorder.

Organizational Learning Disorder

An organizational learning disorder is a type of learning disability related to challenges with executive functions and frequently accompanies other learning disabilities. Organizational learning disorder might include difficulties in handling too much stimuli or information at one time, thinking in an orderly and logical way, distinguishing direction, or organizing materials and time.

A student with an organizational learning disorder might present some of the following difficulties:

- allocating or organizing time
- arranging, or locating the beginning, middle and end
- setting priorities, time management, estimating time
- following schedules and meeting deadlines
- solving problems in stages
- organizing desks or notebooks, finding materials
- settling down and functioning effectively when settings or expectations change
- remembering what they are required to do
- drafting an outline or assembling materials for presentations.

See Organization (page 90) and Learning Strategies (page 83) for strategies to assist Organizational Learning Disorder.

Social Cue Disorder

Individuals with social cue disorder have difficulty behaving in an automatic way. Picking up on spoken and unspoken cues is a complex process. Information must be detected, processed, have meaning extracted; then a response must be formulated.

A student with social cue disorder might present some of the following difficulties:

- poor impulse control and/or needs immediate gratification
- illogical reasons for actions and/or little thought about logical consequences
- inappropriate conclusions or goals, due to deficient reasoning ability
- inability to interpret environmental and social cues: e.g. body language, pitch of voice, personal space and/or facial expressions
- trying too hard or inappropriately to be accepted socially
- being disruptive due to low tolerance for frustration
- not understanding social conventions such as standing too close or turn taking.

See Self Regulation (page 92) and Emotions and Learning (page 50) for strategies to assist Social Cue Disorder.

SECTION 2 | SETTING THE STAGE

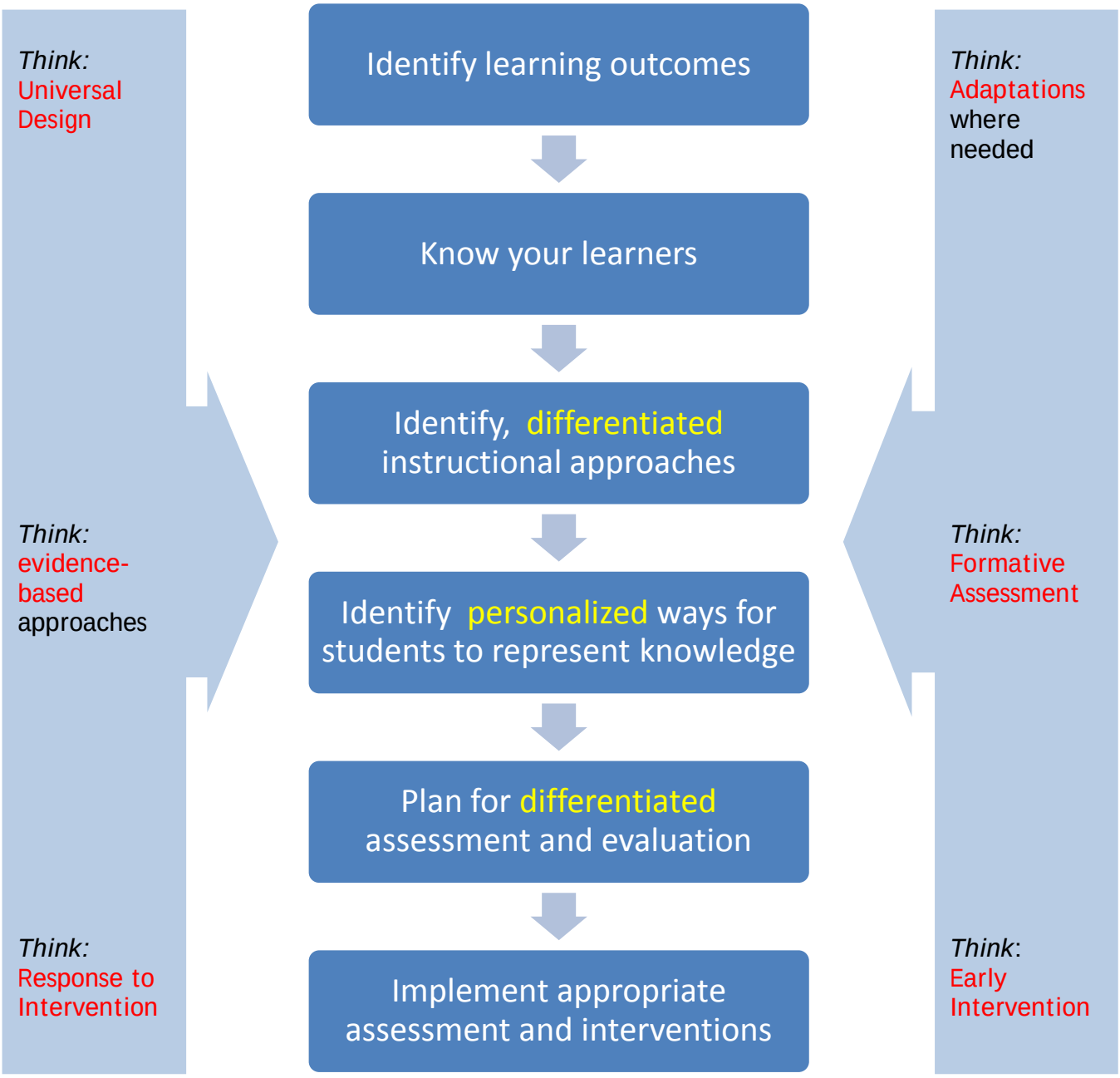
Differentiated Instruction

Differentiated instruction is a flexible approach to teaching in which a teacher plans and carries out varied approaches to address content, learning processes, learning style, practical procedures, presentation strategies, and assessment tools. It results in a more personal, proactive learning environment, inclusive of a wide variety of learners. The graphic on the right, outlines various aspects of differentiated instruction that are described in this chapter of the guide.

When teachers differentiate instruction, they provide students with the structures to maximize strengths, work around weaknesses, and experience timely remediation. This enables students to take advantage of effective learning strategies as they begin to understand their own personal learning styles, interests, needs, and engage with their learning. As a result, student motivation increases.

The various aspects of differentiated instruction mentioned here should be seen as complementary to one another and not mutually exclusive or competing. The following chart outlines one way that aspects of differentiation can be used together to provide effective, well planned instruction and intervention for all students. Various aspects of differentiation can be used together to plan for diversity and provide robust interventions for students with learning disabilities.

Combining Aspects of Good Practice to Plan for Students



Universal Design for Learning (UDL)

Universal design for learning (UDL) is a framework of instructional approaches that recognizes and accommodates varied learning styles. It provides learning activities that expand students' opportunities for acquiring information and demonstrating learning, as well as for enhancing social participation and inclusion.

The driver for universal design is the philosophy of proactively addressing needs. Universal design for learning is integrated into regular instructional planning as a mechanism to make diversity the norm. It provides support for all students and motivates through the element of choice.

The following assumptions underpin universal design:

- Teachers make adjustments to personalize learning for all students, not just those with disabilities.
- Flexibility is the key to providing a curriculum that does not stigmatize or penalize students for having learning differences.
- Curriculum materials are as varied and diverse as the learning style and needs of students.
- Groups of student include a continuum of learner differences with evolving strengths and needs.

The principles of universal design are clearly illustrated in the world of architecture and building. The automatic door at the local grocery store provides access for patrons with disabilities. There is a subtle presence of the feature – it is not labelled "for persons with disabilities" – and it provides a benefit to all patrons, those with temporary disabilities such as a sore arm, or those who appreciate making the management of a heavily-laden cart easier. The automatic door is a simple and common-sense solution.

In an educational context, UDL emphasizes

- multiple means of presentation, to provide various ways of acquiring information and knowledge (e.g. buddy activities, use of concrete manipulatives, video, computer technology, audio texts)
- multiple means of expression to provide students with alternatives for representing learning beyond written work (e.g. video, teaching a peer, information booth, presentation, drawing, sculpture and drama)
- multiple means of engagement to tap into students' interests, offer appropriate challenges and/or increase motivation
- respect for students' learning styles and personal attributes, while still focusing on the required learning outcomes.

UDL is strongly linked to technology because digital formats can be so flexible. Once a text is in digital format, it is transformable – i.e. easily translated from text to speech or expanded with insertions of pictures or video. It is transportable – i.e. easily stored and used again or made available to other students. It is also recordable – i.e. easily stored and played again at will and as necessary for the student. Software applications (advanced organizers and/or graphic organizers for planning, word-prediction software, and spell checkers) provide access to information and the means to respond, so students' work reflects their learning. When students know how to use these software applications, they can be more self-reliant and independent in completing their work.

UDL is not technology for the sake of technology, an add-on at the end of unit planning, or specific only to students with learning disabilities or other special needs.

Resources – Universal Design for Learning

Print

Rose, D., Meyer, A. & Hitchcock, C. *The universally designed classroom – Accessible curriculum and digital technologies*. Harvard Education Press. Cambridge, MA: (2005).

Web

Information about UDL lessons including downloadable lessons	www.SETBC.org
Non-technology / Low Technology Solutions To Support Networks of Learning	http://www.setbc.org/Download/LearningCentre/Access/Networks_of_Learning_2010.pdf

Adaptations

Adaptations are teaching and assessment strategies especially designed to accommodate a student's needs so he or she can achieve the learning outcomes of the curriculum and demonstrate mastery of concepts. Accommodations in the form of adaptations occur when teachers differentiate instruction, assessment and materials in order to create a flexible, personalized learning experience for a student or group of students. Adaptations can be made available to all students, both with and without a learning disability.

Adaptations do not represent unfair advantages to students. In fact, if appropriate adaptations are not used, students could be unfairly penalized for having learning differences, creating serious negative impacts to their achievement and self-concept.

Adaptations might be thought of as adjustments to how students:

- take in information (input)
- participate in learning activities (engagement/process)
- demonstrate their learning (output)

Adaptations might include alternate formats, strategies or settings, and may involve changes to:

- the social and/or physical learning environment
- instruction methods
- learning materials, resources and topics
- response formats and assessment procedures
- time frames for learning

Creating and Implementing Adaptations

In a learning environment where differentiated instruction and assessment has already been implemented, the diverse needs of learners are often already met. In non-differentiated learning environments, adaptations should be provided on an individual basis. In both kinds of settings, the accommodations, whether universal or individual, should endeavour to meet students' needs while focusing on personal learning and active engagement.

The process of creating and implementing adaptations includes finding an appropriate, personalized student-strategy fit. The teacher should consider the individual student's strengths and needs, as well as the learning environment, and look for ways to improve performance in areas of weakness and bypass student challenges, to minimize their impact on overall progress.

To decide the types of adaptations that might help students succeed, the following questions might be posed:

What do students say about

- their interests
- their learning
- what they need/want to learn
- what they feel good about
- what frustrates them
- their preferred learning strategies?

Based on assessment results and student records, as well as parent and teacher knowledge of a student, **what are a student's**

- learning needs
- processing weaknesses
- skill deficits
- social or emotional issues
- environmental needs?

What are a student's strengths in various areas such as

- processing
- skills
- strategies
- learning style and preference
- areas of interest
- attitude and dispositions?

To what degree does the learning environment accommodate the student's needs without requiring individualized adaptations?

What adaptations have the potential to address the needs of this student's learning disabilities?

Of the adaptations that would meet the student's needs, which would best suit the learning environment?

In many circumstances a range of adaptations could accommodate the needs of a student with learning disabilities. In deciding which ones to adopt, teachers should opt for those that encourage independence.

Potential Adaptations

Some typical types of adaptations might be

- audio tapes, electronic texts, or a peer helper to assist with assigned readings
- access to a computer for written assignments (e.g. use of word-prediction software, spell checker, idea generator)
- alternatives to written assignments for demonstrating knowledge and understanding
- advance organizers/graphic organizers to assist with following directions
- extended time to complete assignments or tests
- direct instruction and practice of study skills
- use of computer software which provides text-to-speech/speech-to-text capabilities
- pre-teaching key vocabulary or concepts; multiple exposure to materials
- working on the learning outcomes for a lower grade level.

This chart provides examples of adaptations that personalize teaching and learning. As adaptations are introduced, the student's performance should be carefully monitored to ensure the adaptation is effective.

Chart of Potential Adaptations

Learning Environment	Instructional Methods	Response Formats/ Assessment Procedures
Alternate space within classroom Alternative setting (e.g. resource room) Reduced distractions (study station) Adapted desk/table Cushions to sit on Acoustic equipment (FM system)	Visual aids to supplement verbal presentations Verbal explanations of visual aids Break tasks into small steps Advanced organizers Peer tutors Cooperative learning Maintain consistent routines	Oral, dramatic or video presentations Visual formats (pictures, charts, graphs, diagrams) Word processing Spell check Voice-to-text technology

Time Frames and Organizational Support	Learning Materials/Resources	
Additional time Reduced length of assignments Regular breaks Chunking assignments into modules Daily schedules Agenda books	Manipulatives Text readers Graph paper for math calculations Erasable markers Calculators Duplicate notes	Large Print Books on tape Raised-line paper Headsets Talking calculators Computer

Adaptations can be envisioned as scaffolding. The scaffold provides a step up to the task, and the student does the work with the scaffold's support. By providing a scaffold, teachers foster students' willingness to take risks, make sustained efforts and take personal responsibility for their learning. For example, a student might lack the task-approach strategies and memory of routines required to begin a task. The teacher can make organization and routines explicit by providing a graphic organizer, such as a reading guide or a visual schedule of steps to follow. The graphic organizer provides a scaffold to help the student complete the task with greater success. The same graphic organizer might be used during tests or across a variety of other subject areas.

Adaptations that introduce an element of student dependency should be used only as short-term measures, while the student acquires the skills necessary to function independently. For example, the adaptation of providing peer or adult readers or scribes should be temporary, until the student learns to access readers and scribes using technology.

In some circumstances, providing adaptations might require staged implementation. For example, a fine motor deficit and illegible handwriting might lead the teacher to conclude that the student should use a laptop to complete assignments. However, if the student does not yet have adequate keyboarding skills, the development of necessary keyboarding skills becomes a goal and other optional response formats are employed in the interim.

Adaptations that minimize the impact of skill deficits sometimes reduce students' opportunities to apply and practice skills. Students with learning disabilities can experience an increasing gap in performance compared to their peers, who continue to progress. Remediation of those missing skills might be necessary. For example, a student who is provided the adaptation of using a calculator when completing complex math problems is not likely to improve basic calculation skills, so the teacher still needs to provide remediation.

Some adaptations might be required on a long-term basis while others might be necessary only until the student acquires effective strategies to compensate for his/her learning disabilities. For example, students with deficits in organizational skills might be provided with a model or step-by-step directions until they learn the necessary organizational strategies to enable them to perform without that tool.

A record of successful adaptations for any student should be kept in a student's file to both document current practice and support future instructional planning.

For Ministry of Education guidelines and clarification about adaptations see, *A Guide to Adaptations and Modifications* at:
www.bced.gov.bc.ca/specialed/docs/adaptations_and_modifications_guide.pdf

For examples of non-technology based adaptations, see *Non-Technology/Low-Technology Solutions to Support Networks of Learning* at:
www.setbc.org/Download/LearningCentre/Access/Networks_of_Learning_2010.pdf

Early Intervention

In general, early intervention employs highly systematic approaches that involve monitoring student response to instruction and documenting difficulties to inform prompt, appropriate intervention decisions. Early intervention often takes the form of literacy and numeracy instruction tailored to a student's current functional level, paired with accommodations to prevent the literacy and numeracy difficulties from impeding progress in the other areas.

Because intervening early is so critical, schools use various means to assess students to identify those who might need early intervention in Kindergarten and Grade 1. It is often from within this group of students identified through early assessment that learning disabilities are eventually identified. Robust early intervention can reduce the impact of processing difficulties for some students with learning disabilities, moderating the long-term impacts.

A University of British Columbia research study has shown that strategic literacy instruction paired with supplemental small group instruction for the lowest-performing 20 percent of Kindergarten and Grade 1 students can reduce the percentage of students reading below grade level in Grade 4 to between two and three percent. This is compelling evidence to justify the investment of time and effort involved in early intervention. For more information about this research, see *Firm Foundations: Early Literacy Teaching and Learning* at www.nvsd44.bc.ca/FirmFoundations/main.html

Direct Instruction

Direct instruction is an approach to teaching where the particular skill or content to be learned is presented explicitly.

For some students with a learning disability, exploration or discovery methods of teaching might be ineffective for acquiring core content and developing foundational academic skills. This could be due to a students' inability to make connections from existing knowledge to new learning, learn new vocabulary, develop fluency with a particular skill, create mental frameworks for organizing and remembering content, and/or develop strategies for learning. Direct instruction does not assume students will implicitly, intuitively or indirectly acquire a particular skill or set of facts.

Research has shown that direct instruction can be an effective strategy for teaching mathematical procedures and computations, reading (decoding), explicit reading comprehension strategies, science facts, concepts and rules, foreign language vocabulary and grammar.

Direct instruction involves explaining a concept, skill or strategy, modeling how to perform a task or approach a problem, providing feedback, guiding practice, reinforcing success, shaping understanding, providing a scaffold to the next steps, fostering mastery through practice and positive reinforcement and promoting generalization of skills.

Direct instruction can be employed as seven steps in a teaching and learning sequence. Together, the steps make the skills to be learned explicit and provide feedback during the acquisition phase. It is an effective approach in promoting student success and confidence.

Steps of Direct Instruction

1. Anticipatory set

The teacher ensures students are aware of the learning goal and explains the work to be done; e.g. "Let's remember some of the strategies we are using to read new words. Today we are reading a new book."

2. Statement of the objective

The teacher clearly explains the objective for the work for today; e.g. "Today we are reading the first 10 pages of our new book and we will chart how many words have suffixes."

3. Input

The teacher explains the skill.

4. Modeling

The teacher models the skill and guides practice in development of the skill; e.g. "Remember the strategies we've practiced for creating a question based on what we have read. Today everyone will ask a question for the group to answer."

The teacher gives examples and non-examples of the skill; e.g. "Watch me solve this math problem and tell me if my steps and conclusions are correct."

Steps of Direct Instruction (continued)

5. Checking for understanding

The teacher provides students with criteria for self-evaluation; e.g. "Look at your writing and be prepared to tell me why it is or isn't a paragraph. Use your paragraph checklist to make your decisions."

6. Guided/monitored practice and feedback

The teacher is available to students as they practice and provides on-the-spot feedback; e.g. "I will listen as you read aloud. Tell me when you need to stop and use a word-solving strategy. I will tell you when I hear that you need a strategy." (It is essential that students do not practice errors).

7. Independent practice

Teachers provide activities for students to consolidate skills and develop confidence and independence; e.g. "Invent a math problem for me to solve and be prepared to tell me if I use correct logic and counting skills."

(Adapted from: Hunter, M. *Enhancing Teaching*. Prentice Hall. Engelwood Cliffs, NJ. (1993)

Teachers can use direct instruction with small groups within their classrooms. To implement this practice, some preparation and planning of classroom routines may be required:

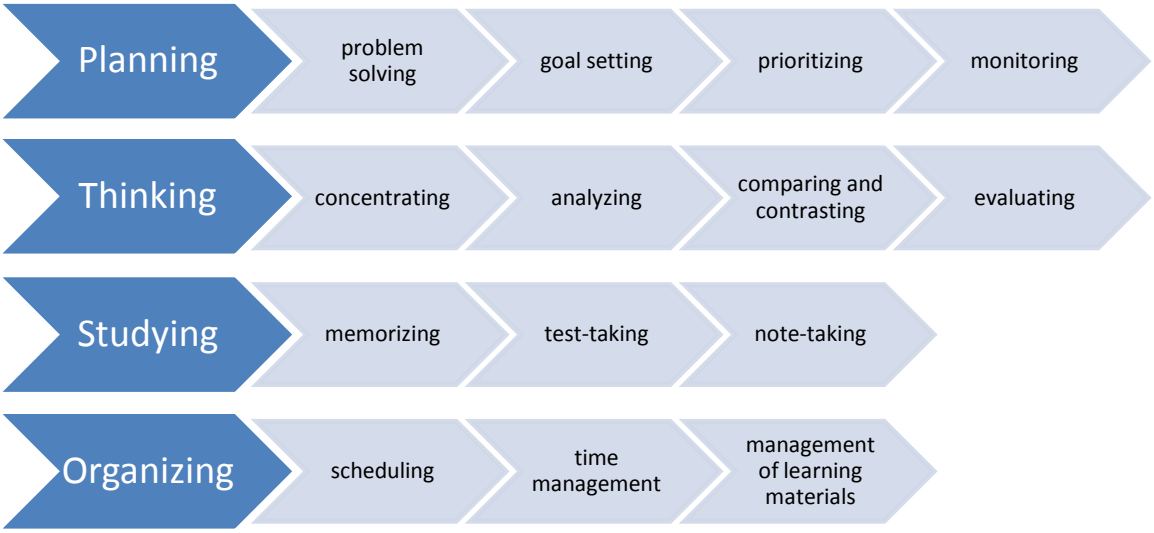
1. Introduce whole class or group activities that can be used to engage students in practice or applying their learning with little teacher support
2. Teach the whole class to engage productively in that activity for 20 minutes of a sustained, uninterrupted period. (This might take some time, but it is worth the investment).
3. Next, when the class is able to follow a routine of independent activity, the teacher can use direct instruction with small groups of students.

Learning Strategies

Learning strategies are techniques that maximize student strengths and provide structures that enable students to learn more effectively. Some examples of learning strategies include use of graphic or advance organizers, assistive software, mental rehearsal and visualization techniques.

Many students with learning disabilities demonstrate a tendency to compartmentalize their learning; therefore, they often require guidance in integrating strategies broadly across a variety of situations.

This graphic suggests some key facets of learning that can improve by applying effective learning strategies.



Resources – Learning Strategies

Print

Unlocking Potential: Key Components of Programming for Students with Learning Disabilities. The Crown in Right of Alberta, Edmonton, Alta. (2002)

Web

Learning Strategies Resource Guide	http://www.ets.org/Media/About_ETS/pdf/lsrg.pdf
Adolescent Literacy: Resources for Parents and Educators of Kids in Grades 4-12	www.adlit.org/strategy_library

Information and Communications Technologies

Information and Communications Technologies can enable teachers to personalize the learning experience by delivering instruction in a variety of modes. A wide array of technology has been specifically designed to support students' active engagement in learning tasks, skill development and ability to demonstrate learning.

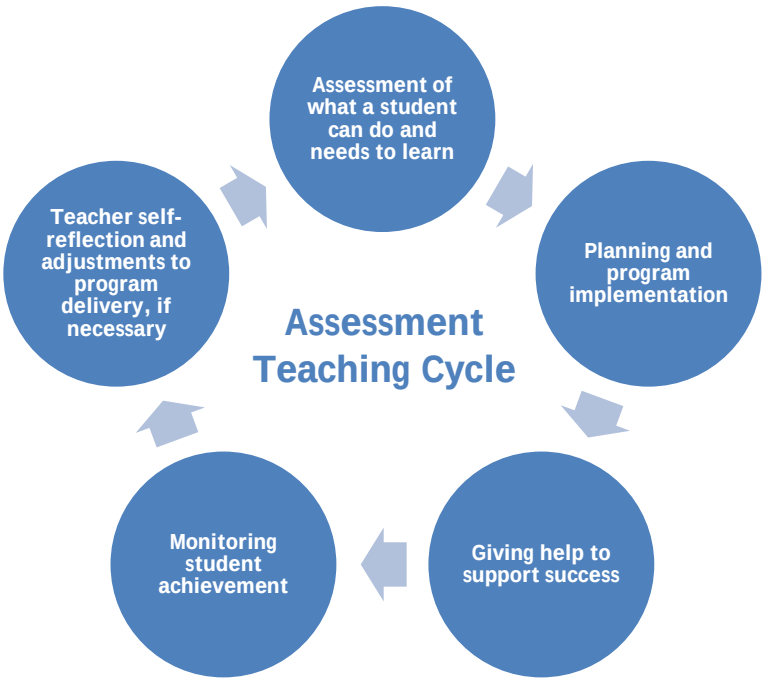
Technology is not a strategy in and of itself; rather, it is an adaptable and powerful tool for providing appropriate personalized learning activities and adaptations. Technology can enhance student independence and self-reliance with reading and writing tasks and provide valuable opportunities to practice skills specifically tailored to a student's instructional level. Technology can provide the opportunity for students to explore reading materials that match their individual interest rather than limit them to their ability – thus helping them learn new vocabulary, make connections with new knowledge and maintain enjoyment, curiosity and motivation.

***SET-BC* is a Ministry of Education Provincial Resource Program established to provide assistive technologies (reading, writing and communication tools) where required to ensure students with print disability access to educational programs, and assist school districts in providing the necessary training for students and educators in the use of these technologies. The SET-BC website includes an extensive list of teacher training resources.** www.SETBC.org

Formative Assessment

Formative assessment is a model that uses feedback from the continuous monitoring of student progress to identify learning strengths and weaknesses and to guide instruction, enabling teachers to recognize the needs of their students and plan accordingly. The assessment/teaching cycle is continuous and involves

- assessing what a student can do and needs to learn
- considering student needs, learning styles and interests when planning appropriate instructional techniques and resources
- providing instructional support
- monitoring progress and using small group or personalized instruction as required
- reflecting and identifying areas where adjustment in strategy is necessary
- continuously monitoring one's instructional techniques and student response.



An application of this process used in a reading program is a continuous cycle of running records (assessing and monitoring progress) paired with guided-reading lessons (direct teaching of academic skills, task-approach strategies, modeling and constructive feedback).

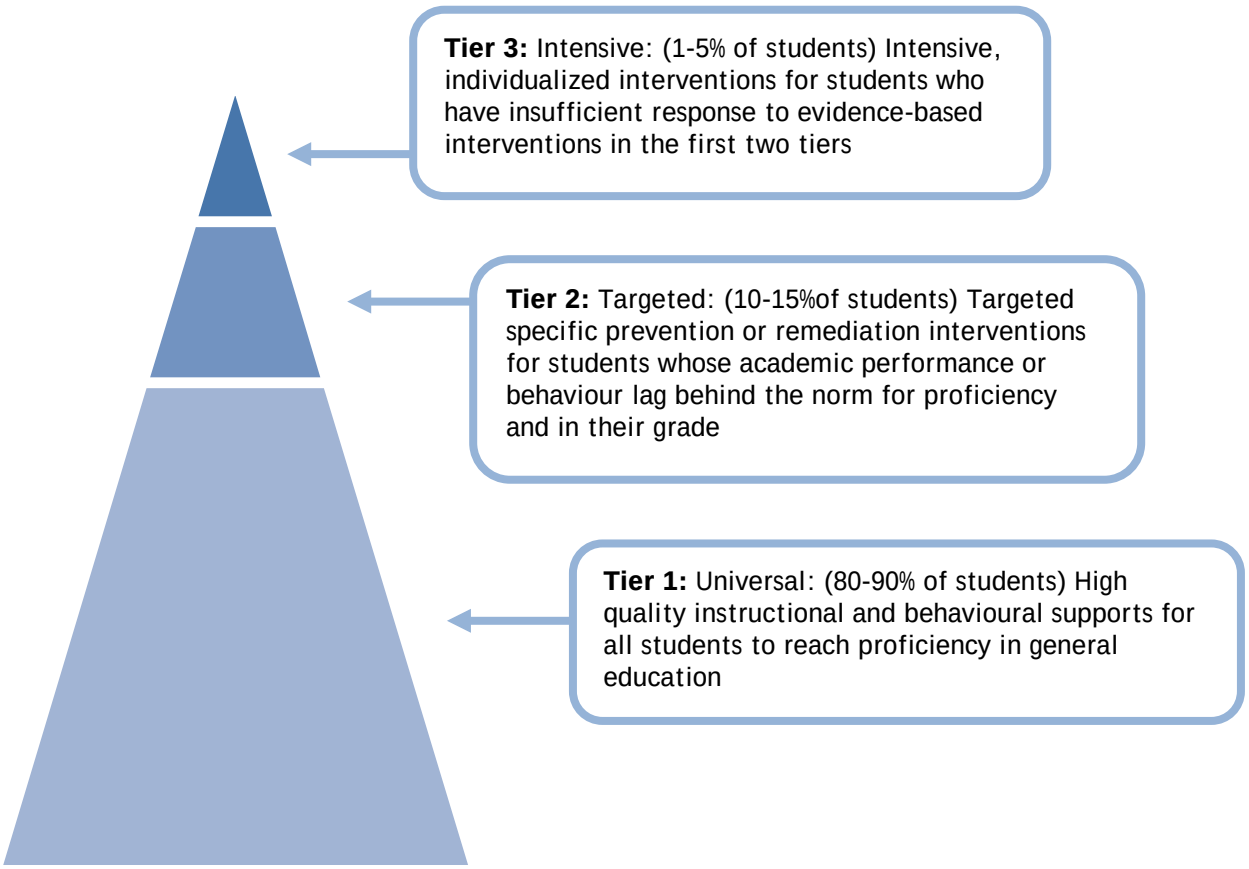
Response to Intervention (RTI)

Response to Intervention (RTI) is a framework for formative assessment that involves collecting data on a regular basis to make instructional decisions in a multi-tier model. RTI is based on the principle of prevention and early intervention. By using ongoing assessment to inform teaching practice and allocate instructional resources, teachers are able to provide appropriate, evidence-based interventions.

RTI research and practice set a high standard for documenting the extent of students' learning difficulties, and focuses attention on data about each student's progress and use of research and evidence-based practices.

Central elements of all RTI models include early screening of all students to identify those at risk for academic difficulties, implementing research-based interventions matched to student need and increasing intensity of intervention when needed. RTI also involves continuous monitoring and recording of student progress during interventions to guide decisions for both the student (e.g. further assessment, individualized planning) and the teacher (e.g. using small group or one-to-one learning contexts, topics for professional development).

Although RTI originates from special education, it is intended for use with all students in general education. The three tiers of RTI could be described as a triangle divided horizontally into three unequal sections.



In the Response to Intervention model, students who do not demonstrate success in Tier 1 are provided additional differentiated instruction at the Tier 2 level. This instruction is delivered with greater frequency, duration and intensity in the areas of difficulty and is usually given within the class setting. Students who continue to demonstrate lack of success in Tier 2 then receive intensive interventions at the Tier 3 level, usually within individualized or small-group situations.

Thorough recording of students' response to intervention helps identify learning strengths and challenges. It also provides a clear representation of the persistence of learning difficulty even though teachers use various teaching strategies, accommodations and interventions. This persistent difficulty may be an indication that further formal assessment is needed.

Resources – Response to Intervention

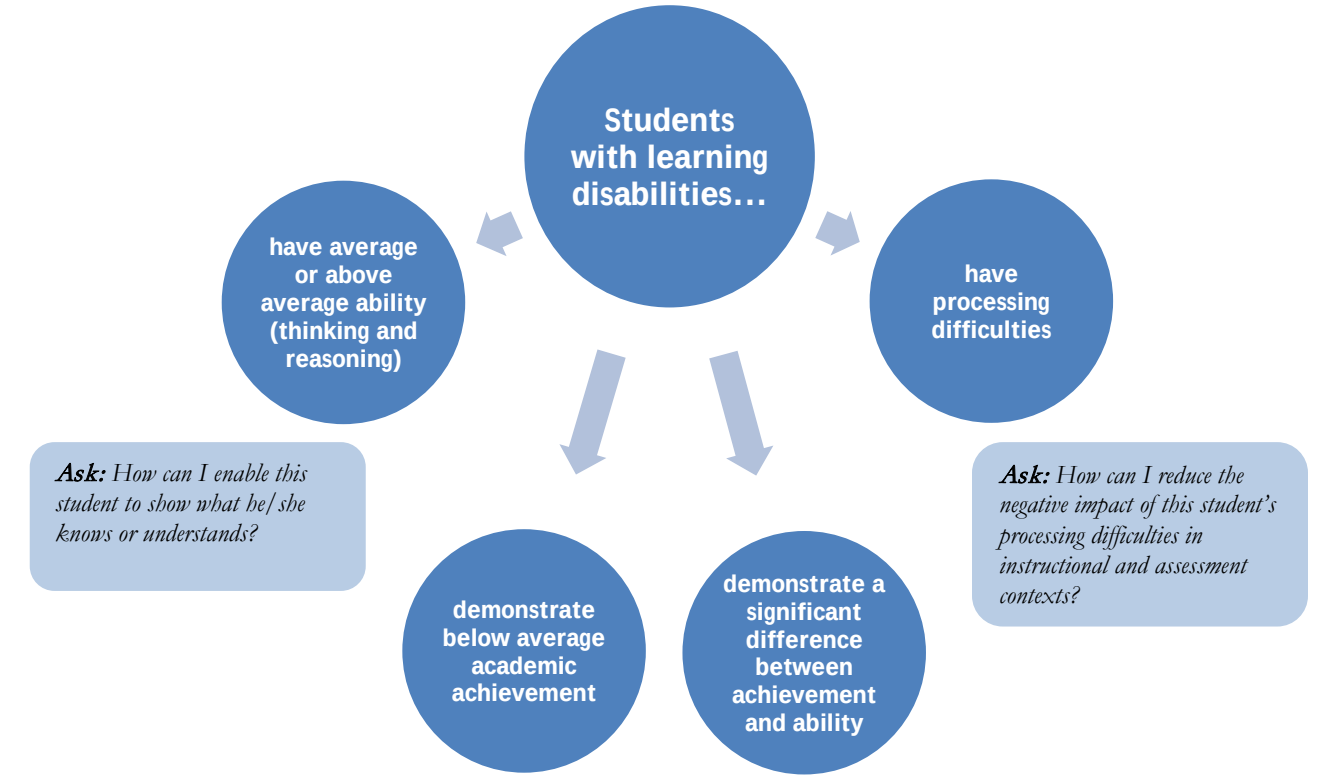
Print

Fisher, D. & Frey, N. *Enhancing RTI: How to ensure success with effective classroom instruction and intervention.* Association for Supervision and Curriculum Development. Alexandria, VA. (2010)

Howell, R., Patton, S., Deiotte, M. *Understanding response to intervention: A practical guide to systematic implementation.* Solution Tree. Bloomington, IN. (2008)

SECTION 3 | PLANNING

Teachers can plan for students with learning disabilities by asking themselves key questions about how to best to support them based on their personal learning profiles.



Adapted from *Teachers Make the Difference: Teaching Students with Learning Disabilities at Middle School and Secondary School Levels.* Ministry of Education, Saskatchewan. *(2009)*

The following list of questions may be helpful in considering the needs of a student to help with planning teaching strategies and other interventions:

1) What are the key concerns about the student's learning? (It helps to record concrete examples of situations and gather work samples to focus this consideration.)

    a) Which curricular areas are affected?

    b) What do we know about impacts in previous years?

    c) Are these same concerns also evident in other settings besides the current classroom?

2) What insights can the parents provide that is helpful in understanding the student's interests, strengths, and difficulties?

3) Based on discussions with the student and parents, what are the student's learning strengths and interests?

4) What adaptations/strategies have worked well in the past? Have been tried but not worked in the past?

5) What can be learned from school and classroom assessments that have already been done?

6) Are there any special factors in the student's background which should be considered?

    a) Does the student have an ESL or immigrant background?

    b) Is the student in a language immersion program?

    c) Has the student been previously homeschooled?

7) Have patterns of attendance that have impacted the student's opportunity to acquire skills?

8) Are there any health factors that might contribute to learning problems?

    a) Have the student's vision and hearing been checked?

    b) Does the student seem alert and well-rested?

    c) Does the student appear to be hungry or malnourished?

Teachers should consult with parents when children experience educational difficulties. Parents know a great deal about their children and play a vital role in their education. Parents will be able to provide pertinent information about the student's unique strengths and learning needs.

In addition to considering the information associated with such questions and from parent input, teachers might also want to consult with colleagues and other professionals to find out more about the learner and some new ideas about how to best support him or her. Consultation might begin with a support /learning assistance teacher or with the school-based team, depending on the local school or district processes.

Consultation with colleagues and school-based team members can provide teachers with valuable insight into strategies and supports that might be more effective and alert the teacher to other considerations that might impact learning. If the student's parents were not directly involved in the consultation, it is a good idea to talk with them about new strategies being tried and perhaps how they might be applied to homework.

As part of planning, teachers try a range of strategies and monitor student responses to these interventions to see how useful they are. Frequently, strategies and interventions generated through a consultation process are very helpful in supporting student success. When a student's difficulties persist despite intervention efforts, a more comprehensive assessment involving district-level and/or community-based personnel might be warranted.

The Learning Disabilities Instructional Support Planning Process (LDISPP) **assists support teams in identifying needs and appropriate levels of supports for students suspected of learning disability.**

See the Learning Disabilities Instructional Support Planning Process in Appendix 2 or go online to: www.bced.gov.bc.ca/specialed/docs/ld_instructional_support_tool.pdf

Assessing Learning Disabilities in BC

Teachers, schools and boards of education are responsible for assessing students for the purposes of planning instruction, providing support services and identifying students with special needs. Even if a student is suspected of having a learning disability, teachers should provide a variety of personalized interventions and accommodations prior to being considering a referral for a formal psycho-educational assessment.

Informal assessment--such as classroom assessments, systematic observation, file review and interviews--are as important as administering formal instruments to determine levels of academic skill development and identify strengths and weaknesses in learning processes. Because it is so important to intervene as early as possible, teachers should not wait for formal assessment to occur before they put strategies in place.

Referrals for psycho-educational assessment by a school psychologist follow district guidelines. *Special Education Services: A Manual of Policies, Procedures and Guidelines* (online at www.bced.gov.bc.ca/specialed/ppandg.htm) provides Ministry guidelines for district processes regarding identification of a student as having a learning disability. Assessment to identify a learning disability should integrate information from a number of sources, including the family, teachers, counsellors (if involved), learning assistance or other records, and any relevant medical reports (such as speech and language pathology). Once a student has been referred for a formal assessment, a teacher or principal will need to obtain parent permission and assist the student and their parents in understanding what will occur during the formal assessment process.

School psychologists usually select assessment instruments that they will use for the formal assessment based on the referral information received and the questions posed in the referral. For students with learning disabilities, psycho-educational assessments reveal difficulties in the areas of perceptual and information processing, language and auditory processing, attention and other areas of executive function, motor abilities and/or social skills as well as reading, written language, or mathematics, This technical information augments that gathered by teachers at the school level and can help school-based teams in understanding a students' difficulties and strengths in order to plan appropriate accommodations and remediation strategies. The findings should be shared with the student, parents and teachers, who may need assistance translating the information into practical strategies.

Based on the psycho-educational assessment, a decision is usually made about whether or not a student is formally identified as having a learning disability. In many cases, the assessment does not indicate the presence of a learning disability. In this case, teachers and the school-based team would still develop a

personalized approach that addresses the student's assessed needs, strengths, talents and interests.

If results from a psycho-educational assessment indicate the existence of a learning disability, the board of education is responsible for identifying that student as a student with special needs. If the student is reported to the Ministry as having a learning disability then the district is responsible for developing an Individual Education Plan (IEP) and for delivering educational programs and related services in accordance with that plan.

Resources – Assessing Learning Disabilities in BC

Web

For more information see the *Individual Education Plan* Order online at	http://www.bced.gov.bc.ca/legislation/schoollaw/e/m638-95.pdf

See Also

Appendix 4: Assessment Tools (page 168)

What is an IEP?

An IEP is a documented plan developed for a student with special needs that describes individualized goals, adaptations, modifications, services to be provided, and measures for tracking achievement. It must include the goals or outcomes set for that student for the school year, if they are different from the learning outcomes set out in an applicable educational program or guide. An IEP usually list supports required to achieve goals established for the student and significant adaptations to educational materials, instructional strategies or assessment methods. It documents the special education services being provided as they relate to the student's identified needs and how those services will be delivered.

An IEP assists with:

Planning

- formalizing the decision making process
- providing a collaborative tool for all people involved, including parents and students, to provide input into the plan
- linking formal and informal assessment results with programming strategies
- providing guidance about transitions

Tracking

- serving as a tool for monitoring individual student learning
- providing an ongoing record to assist with continuity in programming, and

Recording

- providing a record for the student's file and all involved about the student's special education program, and
- serving as the basis for reporting the student's progress on goals and objectives.

IEPs do not describe every aspect of students' education programs, but they should describe those aspects that require individualization. IEPs reflect the complexity of students' learning profiles; they might be brief or more detailed. For example, the IEP for a student who needs adaptations only for taking tests might be relatively simple. In contrast, a student with a complex array of accommodations and interventions requires a more extensive IEP.

Because students with learning disabilities by definition have average or better ability, IEP goals should be set at a high but attainable level. Individualized learning outcomes (goals and objectives) typically focus on the acquisition of basic skills (e.g. literacy or numeracy skills) and the development of compensatory and learning strategies. Socio-emotional goals focusing on such things as self-esteem and friendship skills might also be included. IEPs might also identify strategies for minimizing the impact of learning disabilities and skill deficits.

IEP planning should carefully consider significant transitions that students will experience during their school career – from home to Kindergarten, grade to grade, elementary to secondary, program to program, one school to another and from graduation to adulthood.

Resources – Individual Education Plans

Web

Career/Life Transitions for Students with Diverse Needs	www.bced.gov.bc.ca/specialed/sped_res_docs.htm
Individual Education Planning for Students with Special Needs: A Guide for Teachers	www.bced.gov.bc.ca/specialed/docs/iepssn.pdf
Special Education Services: A Manual of Policies, Procedures and Guidelines	http://www.bced.gov.bc.ca/specialed/ppandg.htm

SECTION 4 | STRATEGIES

Selecting the most appropriate accommodations, interventions, or remedial approaches to assist a struggling learner requires consideration of the student's learning profile, educational history and the resources available. Based on all the available information, teachers try out strategies and carefully monitor their effectiveness. Students with learning disabilities respond differently, as no two are affected in exactly the same way.

The lists of strategies and resources in this document are not meant to be comprehensive, but rather serve as a starting point for ideas about how to support students with learning disabilities.

The lists of strategies and resources in this section are intended to serve as a starting point for selecting ways to support the learning of students with learning disabilities. No one strategy can be assumed to address the needs of all students with learning disabilities. Resources and strategies chosen for this section have been suggested from the literature on learning disabilities or by teachers in BC who are commonly using them for both as universal, small-group and as targeted interventions. School-based learning assistance/support teachers as well as district administrators, speech and language pathologists or reading and mathematics specialists may recommend additional effective assessment tools, strategies, resources and assessment tools for addressing the needs of students with learning disabilities.

It may be possible to determine which instructional approaches did not work for a student in the past by reviewing school records or talking with previous teachers. However, previous instructional strategies and interventions might have occurred at a time when the child was not developmentally ready to benefit from the approach being used. If developmental factors contributed to learning difficulty in the past, it could mean that the same or similar approach might be successful now. Therefore, it is not always a good idea to discount strategies that have not worked in the past.

Direct instruction for specific skill development is important for most students with learning disabilities, but they should not be restricted to working on skills in isolation. A balanced approach provides a focus on reading, writing, thinking, speaking and listening within a rich context. Teaching skills, practicing strategies in context, and building in opportunities to transfer, apply and practice is particularly important for many students with learning disabilities who do not generalize knowledge without specific instruction.

Initial interventions could take the form of an adaptation that is made available for all students and be very informal. Meanwhile, a teacher might use error analysis, conduct a learning interview, and/or ask the student about the difficulties being experienced. Based

on this, more individualized instruction, practice and monitoring should occur. Teachers will often find that no one intervention strategy will address the needs of all learners. To personalize learning for students with various learning profiles, various types of differentiation and variety of approaches and resources may be needed.

In general, teachers should address challenges arising from the student's learning disability by employing the student's strengths whenever possible:

- remediating basic skills through direct instruction, multi-sensory instruction, and specific training designed to help the learner generalize the skill to multiple applications
- bypassing the processing deficit by providing adapted teaching and learning strategies, supplementary learning materials, alternate instructional and/or evaluation strategies, and use of technology
- teaching compensatory strategies to minimize the degree to which future learning is impeded
- addressing the affective domain

Emotions and Learning

The term affective domain refers to the way people react emotionally. Some students who have learning disabilities are particularly vulnerable to emotions that interfere with learning. These emotions arise for a variety of reasons such as frustration due to their difficulties, feeling left out or left behind when compared with their peers, anger and self-doubt when their progress is slow, confusion or embarrassment when they give wrong answers or get a low mark, shame and anxiety resulting from focusing on their difficulties while de-emphasizing or negating their strengths, and lack of self-regulation skills.

The potential benefits of adaptations, interventions and remediation might have little effect unless the affective domain is also addressed. Support from caring adults helps develop the personal attributes of motivation, self-advocacy and self-regulation over time. Students can develop insight into their strengths, learning needs, talents, interests and challenges. They can also develop strategies to advocate for themselves and address their needs. These strategies have a direct link to students' motivation, optimism about learning and how they see themselves as learners.

Strategies

Provide classroom structures that accommodate a variety of learning strengths and needs:

- modeling and providing practice in asking for clarification and asking for help, to enable students to get beyond being "stuck"
- beginning with strengths when evaluating, and debriefing with students after assessments
- recognizing progress explicitly, by graphing or charting progress, setting goals, or planning and tracking achievement
- celebrating success
- providing positive role models and experiences with trusting, and respectful, adults
- modeling problem solving and discussing productive and unproductive strategies
- encouraging self-evaluation as part of the process
- providing consistent routines, clear rules and understandable, logical consequences.

Help students with learning disabilities develop insight about their strengths and challenges:

- modeling the practice of viewing mistakes as a normal part of learning that provide opportunities to self-correct and improve (Comparing struggles and mistakes practicing a sport is a helpful strategy.)
- digging deeper when negative statements are made (Find out what "I'm bored" really means. It could mean the task is too difficult or that a different strategy is necessary.)
- orchestrating opportunities for students to explain their learning strengths and needs to others
- structuring opportunities for the student to relate subsequent learning tasks to what they know about their strengths and needs, building the awareness of any need for accommodation
- promoting self-advocacy and facilitating opportunities for the student to practice
- discourage comparisons to others and reinforce that everyone has personal strengths and weaknesses.

Personalize students' education programs:

- implementing universal design for learning in the learning environment, providing choice for all learners by reducing the stigma of the "special" learner
- focusing on passions, strengths and talents as a way to highlight different types of talent and intelligence
- providing individual choices, skill-appropriate responsibilities, and support for individual effort.

Resources – Emotions and Learning

Print

Lavoie, R. *The Motivation Breakthrough: 6 secrets to turning on the tuned-out child*. Simon and Schuster. New York, NY: (2007).

Web

Anxiety BC	www.anxietybc.com
BC Children's Hospital Mood Disorders Clinic	www.bcchildrens.ca/Services/ChildYouthMentalHlth/ProgramsAndServices/MoodAnxietyDisorderClinic/default.htm
Caring for Kids. Canadian Paediatric Society	www.caringforkids.cps.ca
Collaborative Mental Health Care in Canada	www.shared-care.ca/toolkits
Family Resource Library at BC Children's Hospital	www.bcchildrens.ca/frl
FRIENDS, FunFriends and *Friends for Youth*	www.mcf.gov.bc.ca/mental_health/friends.htm
Levine, M. Developing Minds Series	www.allkindsofminds.org
LDOnline	http://www.ldonline.org/educators
Ministry of Children Family Development	www.mcf.gov.bc.ca/mental_health

See Also

Appendix 3: Quick References — Affective Domain (page 141)

Learning to Read

Many students with learning disabilities experience considerable difficulty with reading. Proficient reading is a highly complex task that requires extensive knowledge and a broad range of skills:

- rapid, sequential processing of visual symbols to recognize letters and word forms
- forming virtually instantaneous associations between visual word forms and oral word forms
- understanding vocabulary
- drawing upon linguistic knowledge to attain meaning from the word order
- mastery of writing conventions to know the significance of punctuation
- gathering and holding sufficient basic material in working memory to access the ideas being expressed
- collecting and holding the ideas to facilitate comprehension.

Teachers' should focus on enabling the students to acquire skills, such as encoding and decoding, increasing fluency and improving comprehension. To meet with success in school and in the world, students need assistance in "learning to read" and in acquiring skills to actively engage in "reading to learn".

Decoding

Decoding is the process of using one's knowledge of letters, sounds and word patterns to determine an unknown word. Effective decoding depends on knowledge of letter/sound relationships, the meanings of roots, prefixes and suffixes, and word patterns.

Strategies

- Use phonemic games.
  - Teach students to move a token for each sound segment in a word.
  - Reverse-a-Word (Say "cat", then say it with the first sound last and the last sound first – e.g. "tac").
  - Remove-a-part (Say "cat", then say it without the beginning sound – e.g. "at").
- Teach the tapping technique, where students identify speech sounds before they spell words by touching the thumb to successive fingers as they segment and pronounce the speech sounds.
- Use mnemonic devices to help students remember tricky spellings of word families.
- Emphasize prefixes, roots and suffixes, beginning with inflections that change the spelling of a base word (fine, finest; begin, beginning; study, studied).
- Link meaning and spelling. The words designate, signal and assignment, for example, share a root. Students then identify spelling patterns and learn to use them as a tool to read and write new words.

Resources – Learning to Read

Print

Jurenka, A. *Teaching phonemic awareness through children's literature and experiences*. Libraries Unlimited.Westport, CT: (2005).

Web

LD Online	www.ldonline.org/ldresources
The Tech Matrix	http://techmatrix.org/Home
National Centre for Accessible Media	http://neam.wgbh.org/ebooks
Teaching Students with Reading Difficulties and Disabilities	www.sasked.gov.sk.ca/branches/curr/special_ed/docs/teachreaddiffanddis.pdf

Resources – Learning to Read (continued)

Web (continued)

Texas Assistive Technology Network	www.texasat.net/default.aspx?name=trainmod.reading
Recording for the Blind and Dyslexic	www.learningthroughlistening.org
Wilson Reading Program	www.wilsonlanguage.com
Earobics (Cognitive Concepts Inc.)	www.earobics.com
Fast ForWord (Scientific Learning Corp.)	www.scilearn.com
WiggleWorks	http://teacher.scholastic.com/products/wiggleworks/index.htm
Lexia Learning Systems	www.Lexialearning.com
What Works Clearinghouse: Institute of Education Sciences, US Department of Education	http://ies.ed.gov/ncee/wwc/

Schacter, J., *Reading programs that work: A review of programs for pre-kindergarten to 4th Grade.* Milken Family Foundation. Santa Monica, CA. Retrieved December 2010 from: www.mff.org/pubs/ME279.pdf

See Also

Appendix 3: Quick References Decoding (page 147)

Fluency

Reading fluency includes the ability to read with expression, while accessing meaning, at an appropriate speed or rate of reading. It involves reading text smoothly, effortlessly and automatically with little conscious attention to the mechanics of reading, at a pace appropriate to the reading purpose. Fluency requires automatic accurate decoding with appropriate phrasing and expression to convey meaning.

Students who have limited fluency read less text than their peers and are less likely to remember, review and comprehend the text or to integrate information with their own prior knowledge.

A lack of fluency could be the result of slow processing speed and/or inadequate sight vocabulary.

Strategies

- Provide practice in reading lists of high-frequency words. Many lists are available in printed resources and online. Ask the student to read continuously from the list for one minute and record the number of correctly read words. Repeat the activity every day. An acceptable rate, established by Fischer (1999), is:
  - Grades 1 and 2 – 30 words per minute
  - Grades 3 – 40 words per minute
  - Grade 4 and up – 60 words per minute
- Extend this practice to include recognition of words with irregular spelling patterns, such as ”physical” and ”know”, or ”said” and ”one”. A simple way to do this is to create a matrix of five rows. Each row contains lists of the same words in different order. Students review the words and are then timed for 1 minute as they read the words in each list. After each session, record the number of words read correctly.
- Help identify one-letter, two-letter and other small words that cannot be visualized mentally. Assist the student with understanding the definitions and functions in a sentence or phrase, until the student knows the word and is comfortable with the way the word is used.
- Read aloud together – or choral reading. The teacher or peer reads aloud with the student for 10 to 15 minutes daily. The helper takes a position beside and slightly behind the student and points to each word, reading at a slightly faster pace than the student. This can help the student practice phrasing and intonation. Choral reading can be done with a large copy of text and the whole class or with a peer or older student mentor/buddy.

- Provide an opportunity for repeated readings. Choose a text of between 50 and 100 words in length. The text should be slightly above the student's present independent reading level. The student reads the selection orally while the teacher times the reading and tallies the number of correct or incorrect words.

  Together, the teacher and student set a realistic goal for improvement. Students can look over the passage and practice reading difficult words at any time. The re-reading occurs daily for a week. Then a new passage is selected.

  Teachers can choose readings from a collection of levelled reading texts. This strategy is useful to focus on reading skills and to introduce text relevant to subjects such as science, math and social studies.

- Provide an opportunity for students to listen to recordings of books while reading along. Use text reading programs, such as Kurzweil or WordQ. Students can read along with the text on the computer monitor while hearing the text read aloud by a computer generated voice.

Resources - Fluency

Web

Precision Reading	www.ijdcr.ca/VOL01_01_CAN/articles/updike.shtml
Essential Skills Reading Software™	www.essentialskills.net
Wilson Reading Program	www.wilsonlanguage.com
Fast ForWord (Scientific Learning Corp.)	www.scilearn.com
WiggleWorks	http://teacher.scholastic.com/products/wiggleworks/index.htm
Kurzweil 3000	www.kurzweiledu.com
Great Leaps Reading Program	www.greatleaps.com/index.php
The Read Naturally Program	http://www.readnaturally.com/approach/steps.htm
Reading Rockets	www.readingrockets.org

See Also

Appendix 3: Quick References Fluency (page 151)

Phonological Processing

Phonological processing consists of the analysis and synthesis of phonemes (the smallest unit of recognized sounds). A student with a phonological processing disorder might demonstrate errors in speech production (omitting a sound in a word, mispronunciation of words, difficulty rhyming words), misperception of spoken words (confusing words that sound similar), or challenges with reading and writing (sounding out, learning conventional spelling, omitting vowel sounds when spelling).

Strategies

Provide direct instruction involving:

- rhyming words
- breaking compound words into individual words and words into syllables
- identifying beginning, middle and end sounds on words:
  - teach the tapping technique, where students identify speech sounds before they spell words by touching the thumb to successive fingers as they segment and pronounce the speech sounds
- phonemic games:
  - teach students to move a token for each sound segment in a word
  - reverse-a-word (Say ”cat”, then say it with the first sound last and the last sound first – e.g. “tac”)
  - remove-a-part (Say ”cat”, then say it without the beginning sound – e.g. ”at”)
  - add a beginning sound to make phoneme blends. (Say “cat”, then say it again, adding the “s” sound at the beginning – e.g. “scat”)
- charts and visuals of phonics skills throughout the class
- word-walls to illustrate a phonetic component.

Resources – Phonological Processing

Print

Jurenka, A. *Teaching phonemic awareness through children's literature and experiences*. Libraries Unlimited.Westport, CT: (2005).

Web

Earobics (Cognitive Concepts Inc.)	www.earobics.com
Essential Skills Reading Software™	www.essentialskills.net
Fast ForWord (Scientific Learning Corp.)	www.scilearn.com

See Also

Appendix 3: Quick References	Phonological Processing (page 165)

Comprehension

Comprehension is the process of constructing meaning from text. It involves a range of executive functions and requires knowledge of word meanings, formation of conceptual relationships, understanding factual and/or literal content, and making inferences. A variety of factors can interfere with reading comprehension, including:

- insufficient processing speed, resulting in reading that is so slow the reader is unable to recall the initial portions of the reading
- inadequate:
  - sight vocabulary, resulting in the need to decode each word thus slowing reading and interfering with constructing meaning
  - receptive vocabulary, resulting in failure to recognize words even when accurately decoded
  - oral language skills, and/or
  - connections to prior knowledge
- failure to recognize printed words learned in isolation or in other contexts, resulting from poor visual perception skills or a lack of generalization
- poor fluency, resulting in word-by-word reading rather than the recognition of phrases essential to accessing meaning
- poor working memory resulting in the inability to construct meaning

Strategies

Develop vocabulary by:

- pre-teaching vocabulary using analogies, synonyms or visual aids
- having students create sentences and then look up the key words in the dictionary to confirm they have used correctly
- teaching meanings of prefixes, suffixes and roots of words, or providing illustrations to help students define and learn a word
- having students explain word meanings to one another in a" walk-and-talk" format (students walk side-by-side and discuss what they are learning, connecting ideas to previously learned ideas and information.)

Help students understand text by:

- teaching students how to generate questions about a text. Students can generate questions before they read, such as in a K-W-L (Know–Wonder–Learn) chart
- helping students relate a passage to an experience, another book, or other facts
- teaching "Think-Pair-Share" strategy (after students spend a minute thinking about a particular topic, they pair with another student to discuss their ideas, and then share their ideas with the larger group)
- teaching and modeling how to visualize and construct images to represent ideas in the text
- helping students make connections to personal experience, knowledge and previous reading

Help students see the connections within the text and understand how different parts of the story or text relate to one another by:

- explicitly teaching and modeling how to summarize important parts of a passage
- providing a cut up version of the text for them to organize as a re-telling of the main points
- teaching and modeling how to predict upcoming content by relating prior knowledge to what has already been read in the text or by using illustrations to identify themes and content

Help students learn to stop and analyze their understanding by:

- teaching them to summarize periodically as they read
- modeling how to notice when they are lost, how to re-read for clarification, speak to another reader about the text, read more slowly or more quickly as appropriate

Resources - Comprehension

Print

Jurenka, A. *Teaching phonemic awareness through children's literature and experiences*. Libraries Unlimited.Westport, CT: (2005).

Web

Soar to Success	http://languagearts.nelson.com/reading/soarsuccess.html
Reading Power by Adrianne Gear (also available in French under the title Lecteurs Engages, Cerveaux Branches)	www.stenhouse.com
Revaluing Reading Instruction	www.jstor.org/pss/20201677
Thinking Reader	www.tomsnyder.com/products/product.asp?sku=THITHI#
Planting a Literacy Garden Comprehension Strategies	http://olc.spsd.sk.ca/de/resources/litgarden/index.html
ACCOMPLISH Reading Program	www.accomplishonline.com
Lindamood-Bell for Reading and Comprehension	www.lindamoodbell.com
Readinglady.com	www.readinglady.com (see Comprehension)

See Also

Appendix 3: Quick References	Comprehension (page 143)

Receptive Language Processing

Individuals with receptive language processing disorders have difficult in understanding oral, visual and/or written information.

Strategies

Use graphic organizers to assist in organizing information, making connections between concepts and providing different ways of looking at information.

- Provide opportunities to make predictions about outcomes
- Chunk information and teach about headings and text structures
- Have the students retell or restate instructions to a peer
- Provide information visually, orally, and graphically where possible

Resources – Receptive Language Processing

Web

Learning Strategies Resource Guide. Region XIV Comprehensive Center. Educational Testing Service. Tucker, Georgia.	www.ets.org/Media/About_ETS/pdf/lsrg.pdf
Thinking Reader	www.tomsnyder.com/products/product.asp?sku=THITHI#
Planting a Literacy Garden Comprehension Strategies	http://olc.spsd.sk.ca/de/resources/litgarden/index.html
Soar to Success	http://languagearts.nelson.com/reading/soarsuccess.html
Revaluing Reading Instruction	www.jstor.org/pss/20201677

See Also

Comprehension (page 62)

Appendix 3: Quick References Receptive Language Processing (page 167)

Reading to Learn

As students move through grade levels, the task of learning to read changes to reading for pleasure and information or reading to learn. The challenge for many students with learning disabilities is that the process of reading might not become automated.

Transferring Skills

Students with learning disabilities might demonstrate significant growth in their reading skills as a result of direct instruction provided in an individualized setting but fail to transfer the skills they have acquired to other learning situations. They might require specific instruction in ways to adapt their reading skills to fit a variety of applications.

For all students, but particularly for students with learning disabilities, teachers should teach specific reading strategies in the context of content learning, and across a variety of content areas, so students learn to apply strategies in more than one circumstance. For example use the same graphic organizers for making sense of a social studies text as well as for developing an outline for a report.

Reading in the Content Areas

A major challenge in reading in the content areas is that words become less patterned, and less familiar. There are often fewer pictures and unfamiliar context, or textual structures.

Strategies

- Pre-teach vocabulary relevant to the content areas
- Deliberately use new words as often as possible in conversation and in context of relevant subject matter
- Model use of context to derive meanings, finding root morphemes, mapping word derivations, understanding word origins, and paraphrasing idiomatic or special uses for words
- Teach explicitly about structure of text such as headings and subheadings, paragraphing, starting sentences and supporting ideas Use questioning techniques as a framework for reading for information

- Use graphic organizers before during and after reading to organize ideas
- Use concept definition mapping-describe a concept and provide examples and non-examples of it to develop understanding
- Have students read and summarize longer materials in chunks, then put the summaries together to create a whole

Resources – Reading to Learn

Print

Beers, S. & Howell, L. *Reading strategies for the content areas (Vol. 1)*. Association for Supervision and Curriculum Development. Alexandria, VA. (2003).

Osborn, P. *Reading smarter (Grades 7-12)*. Center for Applied Research in Education. New York, NY. (1995).

Web

Learning Tools for All	http://learningtools4all.pbworks.com
The Accessible Resource Centre – British Columbia	www.arc-bc.org/help/general_info.aspx
Reading to Learn	www.readingtolearn.com.au
All about Adolescent Literacy	www.adlit.org/strategy_library

See Also

Appendix 3: Quick References	Transferring Skills (page 164) Reading in the Content Areas (page 162)

Writing and Expression

Proficient writing involves

- vocabulary and expressive language skills
- mastery of the mechanics of written language
- a store of background information to use in formulating ideas
- planning and organizational skills

Supports for student with writing difficulties should incorporate both compensatory strategies and intervention strategies, so students can manage requirements for written work while still developing their writing skills. This section discusses various aspects of writing such as spelling, motor control, planning, drafting, editing, publishing, and note taking.

Remember that because written work is meant to be seen, a student with a learning disability might feel particularly vulnerable working on such tasks.

Resources – Writing and Expression

Print

Graham, S. & Hebert, M.A. *Writing to read: Evidence of how writing can improve reading.* Carnegie Foundation. New York, NY. (2010).

Johns, J.L. & Lenski, S.D. *Improving writing: Resources strategies and assessments.* Kendall Hunt Publishing Company. Dubuque, Iowa. (2000).

Web

BC Performance Standards for Writing	www.bced.gov.bc.ca/perf_stands/writing.htm
Six-Trait Writing Assessment Rubric	http://educationnorthwest.org/event/951
Learning Tools for All	http://learningtools4all.pbworks.com
Adapted/Modified Materials for Writing Output Series. (Davies and Johnson Associates)	www.daviesandjohnson.com
Graphic and Advanced Organizers	http://en.wikipedia.org/wiki/Graphic_organizer
Inspiration	www.inspiration.com
Kidspiration	www.inspiration.com/productinfo/kidspiration/index.cfm

Expressive Language Processing

Individuals with expressive language disorders have difficulty in language production or formulating and using spoken or written language. (Hunt & Marshall as cited in Educator's Diagnostic Manual of Disabilities and Disorders, 2007). A person with an expressive language disorder may understand what is being said, or what they read but have difficulty making the connection between their ideas and the words used to express them.

Strategies

Provide a framework for language and idea development by:

- thinking aloud as you problem solve or work through a process
- using visual with oral instructions
- using learning strategies such as:
  - KWL
  - Think-Pair- Share

Expand on students' verbal responses by:

- responding to them using correct grammar
- elaborating on students' ideas
- encouraging students to practice using words in sentences, listen for new words throughout their day
- encouraging discussions using higher level questions

Resources – Expressive Language Processing

Web

Learning Strategies Resource Guide. Region XIV Comprehensive Center. Educational Testing Service. Tucker, Georgia.	www.ets.org/Media/About_ETS/pdf/lsrg.pdf
Thinking Reader	www.tomsnyder.com/products/product.asp?sku=THITHI#
Planting a Literacy Garden Comprehension Strategies	http://olc.spsd.sk.ca/de/resources/litgarden/index.html
Soar to Success	http://languagearts.nelson.com/reading/soarsuccess.html

See Also

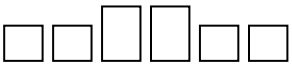
Appendix 3: Quick References — Expressive Language Processing (page 166)

Spelling (Encoding)

Spelling involves using one's knowledge of letters, sounds and word patterns in a verbal word to map (encode) those sounds onto a letter sequence in order to spell out a written word. Spelling difficulties are common even for students without a learning disability; however, when they occur in combination with language or mathematics based difficulties, a learning disability might be the cause. Poor spellers have trouble noticing, remembering and recalling the features of language that letters represent. This includes the ability to analyze and remember the individual sounds in the words (phonemes), such as the sounds associated with f, sh, or p; syllables, such as cas, mem, neg; and meaningful parts of longer words (morphemes), such as re-, -ment or -est.

Strategies

- Teach reading and spelling together, giving a context for language and meaningful practice.
- Discuss word structures, origins and meaning of words and morphemes.
- Encourage hands-on practice with spelling words by
  - providing a tray of salt or modeling clay to make words
  - printing a spelling word on a strip of paper, cutting the letters out and having students rearrange the letters to re-create the word
  - spelling with magnetic letters
- Use box-words that mirror the shape of letters in words.
  e.g. m-o-t-h-e-r would look like this:

  Students then match the word to the blank boxes and use the blank boxes to guide encoding or to guide sorting a list of words into word families.
- Make correctly spelled words easily accessible by
  - keeping a list of most-commonly misspelled words or having students create a personal dictionary for reference
  - having students regularly re-practising and using challenging words
  - brainstorming with students before they write, in order to generate and provide correct spelling of pertinent words
  - making word prediction software available.
- Provide adaptations to ensure students feel successful by
  - reducing the number of spelling words a student needs to master, focusing on quality not quantity
  - ensuring that spelling tasks are at a level where students experience success, gradually increasing the degree of difficulty as the student progresses

Resources – Spelling (Encoding)

Print

Allen Jurenka, N. *Teaching phonemic awareness through children's literature and experiences*. Libraries Unlimited. Westport, CT. (2005).

Web

LD Online	www.ldonline.org/ldresources
CoWriter	www.donjohnston.com/products/cowriter/index.html
Dragon Naturally Speaking	www.nuance.com/dragon/index.htm

See Also

Appendix 3: Quick References Encoding (page 150)

Motor Control

Fine motor control describes the ability to physically perform tasks that require small amounts of movement, such as the ability to print, write, use scissors or use manipulatives. Gross motor control describes the ability to perform tasks that require movement of large muscles in the body: for example, moving around desks in a room or lining up without bumping into things. The school's occupational therapist might offer advice to teacher about helping students develop fine and gross motor skills.

Strategies

- Provide a pencil grip to enhance pencil control.
- Place paper on a clipboard to hold it steady.
- Slant the clipboard at a 15-30 degree angle.
- Supply paper with bold or raised lines, to make it easier to stay on the line.
- Provide instruction and opportunities to become proficient at keyboarding.
- Provide voice-to-text technology.

Resources – Motor Control

Web

Handwriting Without Tears	www.hwtears.com
Dragon Naturally Speaking	www.nuance.com/dragon/index.htm
Learning Tools for All	http://learningtools4all.pbworks.com

See Also

Appendix 3: Quick References — Motor Control (page 156)

Planning

Planning before actually writing plays an important role the writing process. Planning goes beyond the writing process to both the acquisition of knowledge and in effectively demonstrating learning. A student who experiences difficulties with planning may, among other things, struggle to begin tasks, generate ideas, complete and hand in assignments, or participate in group projects.

Strategies

- Guide students to sit back and think: What do I already know? What do I need to find out? How should I begin?
- Provide experience with a variety of graphic organizers such as webs, flowcharts or semantic maps, as a means to group ideas and see how to form paragraphs or decide on logical flow.
- Guide students to consider the purpose of their writing and the audience, so they can address the reader appropriately. Explore ideas such as writing to express personal feelings, to imagine (What if...?), to narrate, to describe, to inform, etc.
- Create several first lines and suggest key words to get drafts under way, often referred to as stems or starters.

Resources - Planning

Print

Unlocking Potential: Key Components of Programming for Students with Learning Disabilities. The Crown in Right of Alberta. Edmonton, Alta. (2002).

Web

Inspiration	www.inspiration.com
Kidspiration	www.inspiration.com/productinfo/kidspiration/index.cfm
Learning Strategies Resource Guide. Region XIV Comprehensive Center. Educational Testing Service. Tucker, Georgia.	www.ets.org/Media/About_ETS/pdf/lsrg.pdf
Adolescent Literacy: Resources for Parents and Educators of Kids in Grades 4-12	www.adlit.org/strategy_library

Drafting

Some students with learning disabilities have significant trouble showing what they know on paper. Difficulties with writing tasks can arise from challenges with generating ideas, planning how to include the ideas in the writing sample, accessing vocabulary appropriate to the topic, and following a process to complete the writing task.

Strategies

- Model the drafting process:

  Think aloud so students can hear the dialogue that writers engage in as they create written work. Teachers can demonstrate in a step-by-step fashion how to plan, create a draft, evaluate what was written and then revise and edit.

- Model how to ask questions that help students progress through a writing task:

  How can I introduce my topic? How can I develop this next part? How can I conclude my topic? Include questions that help the student pause and reflect. Am I on topic? Do I need to say more? Is my meaning clear?

- Provide daily opportunities to write on a variety of topics and using a variety of genres.

- Support students' independence by using scaffolds, such as a visual representation of the steps involved in writing or feedback for each step of the drafting process.

- Provide compensatory strategies for choosing vocabulary:

  Students can create custom dictionaries through technology, make a personal note book or jointly create a class "word-wall." When there is a good match between the writing task and predicted words, students can easily find the words they are choosing to write. These words then form part of the active bank and are available when the student begins writing. If the class is studying rocks, for example, the words in the word wall could include vocabulary such as "metamorphic" and "lava".

- Involve students in digital storytelling as an alternative to writing:

  The narration and pictures can be saved as a digital file for sharing with others. In this way students are unencumbered by the struggles involved in fine motor skills, spelling and punctuation.

Resources - Drafting

Print

Tomkins, G. *Teaching writing: Balancing process and product (3rd ed.).* Merrill/Prentice Hall. (Upper Saddle River, NJ. 2000).

Web

Kurzweil 3000	www.kurzweiledu.com
WordQ	www.wordq.com
CoWriter	www.donjohnston.com/resources/cowriter6_index.html
Dragon Naturally Speaking	www.nuance.com/dragon/index.htm

See Also

Appendix 3: Quick References Drafting (page 148)

Editing

The editing process requires simultaneous attention to many aspects of writing. Systematically breaking down tasks into chunks helps make them clearer and less daunting to struggling writers. Editing addresses both content (ideas and organization) and structure/surface features (spelling, punctuation, letter formation).

Consider using a formative Assessment tool to give students feedback about their writing. Students can use a criteria sheet to check their work; for example the BC Performance Standards writing rubrics, teacher-made rating scales and checklists.

Strategies

- Conduct a group edit:
  - Use a teacher's own weak first draft as an example and talk through the editing process
  - Use an anonymous sample of writing from another class to engage students' thinking about how to improve a piece of writing
  - Read compositions aloud (or have a peer or the computer software read aloud) and have students work together asking: Does this make sense? Is there information I should take out or add more?
- Use criteria lists as guides for editing
  - provides prompt for self-evaluation; for example, ensure each sentence has a beginning (who, what) and an ending (what's happening), ensure correct use of punctuation, replace words like good or cool with other choices, or drop them altogether, etc.
  - formative assessment structures to provide feedback
  - prioritizing aspects of writing on which that student needs to focus.
- Create a list or blog of "Notable Sentences" and publish it for the group to act as sentence.
- Make use of technology or other writing tools:
  - Teach students how to use electronic spell checkers to identify misspelled words
  - Use the auto-correct or proofing features available in software applications
  - Make common use of thesauruses, which help writers expand their choice of words and rework their writing for clarity.
  - Use devices such as C.O.P.S

    C – Is each sentence **clear**?

    O – Is it put into a logical **order**?

    P – Did I use **punctuation** correctly?

    S – Check the **spelling**

Resources - Editing

Web

Kurzweil 3000	www.kurzweiledu.com
WordQ	www.wordq.com
CoWriter	www.donjohnston.com/resources/cowriter6_index.html
BC Performance Standards for Writing	www.bced.gov.bc.ca/perf_stands/writing.htm

See Also

Appendix 3: Quick References	Editing (page 149)

Sharing/Publishing

Sharing work may pose particular challenges for those who have difficulty with writing. Teachers should be creative about sharing students' work, so those with writing challenges are not singled out and embarrassed. Students with learning disabilities can be helped to polish a writing piece so that it can be shared with pride.

Strategies

- Rather than displaying students' original work, turn work into a class newsletter or book or create a digital file for print-out for polished samples.
- Include options for artistic or digital presentations.
- Help students with learning disabilities to edit and refine a final product of which they can be proud.

Resources – Sharing/Publishing

Software

Microsoft PowerPoint
Microsoft Publisher

See Also

Appendix 3: Quick References Sharing/Publishing (page 163)

Learning Strategies

Students with learning disabilities sometimes do not intuitively pick up on learning strategies. Introducing a variety of strategies, using them across a number of learning environments and discussing with the student which ones work best and where is a valuable exercise which provides insight into learning styles, different ways to organize thinking, and ways to make effective plans.

Study Skills

- Provide study guides or help students to create their own.
- Encourage study groups, in order to support auditory learners and provide context for learning information.
- Have students generate possible test questions from which to study.
- Have students put one fact only on post-it notes, and then organize them into clusters/clumps on their desks. Discuss why each clump has been assembled and how the facts relate to one another.
- Have students use a highlighter and work as group to identify key words or ideas. Discuss how the highlighted text relates to the overall topic and sub-topics of the piece.

Test Taking

- Help students learn how to identify which questions to answer first.
- Teach students to skim through the test and answer the easiest questions first, before proceeding to the more challenging questions.
- Show them how to use a watch to judge how much time to spend on a question depending on the mark value.
- Teach the process of elimination for multiple choice or true and false questions.
- Teach the use of a mini map or outline for essay questions.
- Encourage students to highlight key or signal words in test questions.
- Teach the strategy of explicitly identifying the steps in multi-step questions.

Memory

- Teach visualization, cognitive mapping and mnemonic strategies.
- Provide advance notice for tests, to allow for longer study time.
- Teach students to divide information into categories.
- Exaggerate and use humour in presentations and studying tasks.
- Use visual, auditory and kineasthetic modes of presenting and exploring material.
- Provide frequent, regular opportunities to practice.

Note-taking

Taking notes involves a combination of quickly processing language, recalling spelling and engaging fine motor skills. Students with learning disabilities can have immense difficulty with this kind of writing. Teachers should directly teach learning strategies that enable students to develop skills in taking useful notes and at the same time consider arranging for students to have access to peer helper notes.

Strategies

Before lesson presentations

- Provide students with a table format where the left-hand column includes the teacher's key points and the right-hand column has space for students to add phrases, additional words, pictures or graphics.
- Prepare a standard outline for the whole group that includes a spot to record the key topic, main points and a summary.
- Provide text materials, vocabulary and abbreviations for vocabulary ahead of time.
- Provide a peer helper with carbon paper for duplicating notes.
- During presentations
- Slow the presentation and cue students to important points with wait time or verbal cues.
- Use a SMARTBoard or an interactive whiteboard. Notes written on the board can be saved and downloaded to student files. Students can then open the file and rewind/fast forward to specific points in the lesson for review.
- Provide word prediction software so students can save files or print them out.

After presentations

- allow additional time for students to review their work, ask questions or discuss in small groups
- provide photo or digital copies of notes or notes created by peers using carbonless copy paper

Notetaking practice:

- Prepare a short talk and write out notes for it. Blank out key words and have students fill these in as they listen. Teachers can increase the amount of text to fill in, or move to a partially completed outline that students work to complete.
- Help students gain experience by providing three-minute talks or lectures and ask students to take notes.

Resources – Learning Strategies

Web

AlphaSmart Inc.	www.neo-direct.com/intro.aspx
SMARTBoard	http://smarttech.com

See Also

Appendix 3: Quick References	Learning Strategies (page 152) Memory (page 155) Note Taking (page 157)

Numeracy and Mathematics

Students with learning disabilities might have difficulty with any number of tasks related to numeracy and math competency:

- acquiring competence and confidence in number concepts
- understanding the number system, symbols and operations
- recalling basic facts and formulae
- reading and understanding instructions and word problems
- learning and remembering new vocabulary
- organizing the steps required for problem-solving
- developing a repertoire of mathematical techniques
- making meaningful connections within and across mathematical experiences.

Strategies

Provide explicit instruction in small groups in which students

- are given clear models of how to arrive at a solution
- apply the solution strategies to multiple examples
- receive immediate feedback on their accuracy
- ask questions and think aloud about the decisions they make while solving mathematical problems.

Encourage students to represent the information in math problems in a variety of ways:

- Use manipulatives to facilitate the students' formation of mental concepts of numbers and operations. Then move to iconic forms, such as drawings, and then to symbolic representations using standard mathematical notations. Three concrete lessons (using manipulative devices) and three pictorial lessons (using pictures and/or tallies) with each lesson consisting of about 20 problems is sufficient for most students with mathematical disabilities to understand the concept being taught.
- Have students verbalize discussions and solutions to a mathematics problem.

Make use of web-based and software technology to provide a variety of ways to

- represent numbers and operations while increasing students' abilities to create mental representations of concepts
- represent numbers and operations in visual a format
- manipulate images to enact operations and problem-solving procedures
- project text, graphics and images and then manipulate them on a white board. These boards record the lesson, including examples used to illustrate a concept. Students download and open the lesson in digital format to review it, fast forward to a key point and review work at their own pace.

Provide a talking calculator which will say each number and symbol aloud as entered, enabling continuous self-checking of work.

Provide organizational assistance by

- using graph paper for mathematical computations if students experience difficulties aligning their work
- assigning manageable amounts of practice work as skills are learned
- assigning a peer helper to work along with the student demonstrating ways to organize mathematics work.

Resources – Numeracy and Mathematics

Print

Richardson, K. *Developing number concepts using unifix cubes*. Addison Wesley Publishing Co. Menlo Park,CA. (1984).

Sliva, J. *Teaching inclusive mathematics to special learners K-6*. Corwin Press. Thousand Oaks, CA. (2003).

Small, M. *Good questions: Great ways to differentiate mathematics instruction*. College Press. New York, NY. (2009).

Sousa, D. *How the brain learns mathematics*. Corwin Press. Thousand Oaks, CA. (2002).

Tang, G.. *The grapes of math*. Scholastic Press. New York, NY. (2001)

Resources – Numeracy and Mathematics (continued)

Print (continued)

Axelrod, A. *Pigs will be pigs: Fun with math and money.* Simon and Schuster Books for Young Readers. New York, NY. (1994).

Bird, R. *The dyscalculia toolkit.* Sage Publications. Thousand Oaks, CA. (2007).

Haylock, D. & D'Eon, M. *Helping low achievers succeed at mathematics.* Trifolium Books Inc. Toronto, Canada. (1999).

Jayanthi, M., Gersten, R., & Baker. S. *Mathematics instruction for students with learning disabilities or difficulty learning mathematics: A guide for teachers.* RMC Research Corporation, Center on Instruction. Portsmouth, NH. (2008).

Jenkins, S. Actual size. Sandpiper. London, UK. (2010).

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Web

The Early Numeracy Project; For Grades K-1	www.bced.gov.bc.ca/early_learning/fdk/professional/resources.htm
FASTT Math published by Tom Snyder Production, Scholastic	www.tomsnyder.com/fasttmath/index.html
First Steps in Math: For Grades K-10.	www.pearsonprofessionallearning.ca/firststepsmath/index.html
Foundations for Numeracy: an evidence based toolkit for early learning practitioners. Canadian Language and Literacy Network and the Canadian Child Care Federation.	http://foundationsfornumeracy.ca/pdf/EY_NumeracyKit09_ENG.pdf

Resources – Numeracy and Mathematics (continued)

Web (continued)

JUMP Math	www.jumpmath.org
Math 44 Teaching for Proficiency (2nd Edition) North Vancouver School District	www.nvsd44.bc.ca/programs/NVSD%20Resource%20Guide.aspx
Mathematics glossary of terms	www.edu.gov.mb.ca/k12/cur/math/glossary_k-8/document.pdf
Math Solutions	www.mathsolutions.com
Mighty Math and MathPad Plus series published by Edmark	www.synapseadaptive.com/edmark/edmark_software_products.htm
The Power of Ten	http://poweroften.ca
SMARTBoard	http://smarttech.com
Virtual Manipulatives Base Ten Blocks	http://olc.spsd.sk.ca/de/math1-3/baseten-1.html

See Also

Appendix 3: Quick References	Number Concepts and Place Value (page 158) Mathematical Reasoning (page 154) Accuracy and Neatness in Math (page 146) Computation (page 144) Reversals in Math (page 145) Sequencing Numbers and Steps (page 159) Problem Solving in Math (page 161)

Organization

Improving organization skills can have a profound effect on both learning and overall quality of life. A person with an organizational learning disorder does not intuitively pick up on or apply strategies to different situations. Effective executive function tools and strategies can greatly improve learning efficiency.

Strategies

Instruct explicitly by

- teaching organizational strategies, including when and why each strategy is to be used
- embedding strategies across the curriculum and having students use them persistently
- personalizing organizational strategies to make use of a student's strengths and interest
- conferencing with students to identify areas of weakness and set realistic goals
- teaching self-monitoring skills
- assessing students on acquisition of organizational skills, evaluating their progress, and reporting as part of their grade.

Provide scaffold support by

- providing both written and oral instructions
- teaching step-by-step approaches to work, breaking long assignments into chunks and assigning time frames for completing each chunk.
- forewarning students about transition times and shifts in activities
- creating separate work areas with complete sets of supplies for different activities.

Model organizational skills by

- making checklists and to-do lists, estimating how long tasks will take
- providing visual organizational aids and referring to them regularly, including visual agendas, visual calendars to keep track of long term assignments, due dates, chores and activities
- using time organizers watch alarm functions
- organizing work space and scheduling a weekly time to clean and organize the work space, and
- minimizing clutter.

Resources - Organization

Web

National Center for Learning Disabilities	www.ncld.org
LDOnline	www.ldonline.org/educators
Time Timer	http://www.timetimer.com

Other

Franklin Day Planner

Palm Pilot

Lotus Organizer

See Also

Appendix 3: Quick References	Planning (page 160)

Self Regulation

Difficulties with self-regulation can have a significant effect on both learning and social interactions. For example, self-regulation allows a student to both initiate on-task behaviour and inhibit off-task behaviour, both necessary for learning.

Provide accommodations for students who have difficulties:

- Allow use of a fidget toy (i.e., modeling clay or squeeze ball).
- Provide an exercise ball for seating.
- Locate a workspace for the student away from distractions.
- Provide opportunities for students to stand while working.
- Provide authentic opportunities to move during class (store supplies at the back of the room so students can walk to get materials they need).
- Divide long assignments into chunks that can be shared for feedback frequently.
- Mark assignments in stages to break up need for sustained concentration time.

Provide supportive structures and strategies

- outlining the routine for the day
- providing visual and tangible signs of the behaviour expected
- acknowledging or 'catching' the student demonstrating appropriate behaviours
- making assignment criteria explicit
- announcing changes in activities ahead of time
- identifying areas of interest and using them in instruction.

Provide instruction and support to develop self-monitoring

- recognizing desired behaviours and the undesired behaviours
- focusing on a specific behaviour each day or week rather than many at once
- developing a 'secret' signal that acknowledges appropriate behaviour
- creating with the student a process for him or her to self-monitor
- providing opportunities to practice learned appropriate behaviours successfully in a variety of situations, including interacting with other students.

Resources – Self Regulation

Print

Bodrova, E. & Leong, D. *Tools of the mind: The Vygotskian approach to early childhood education.* Allyn & Bacon. Boston, MA: (2007).

Web

Shankar, S. *The Development of Self Regulation*	www.bcssa.org/powerpoints/Fall2010/Shanker-BCSSA.ppt
Self Regulation…What is it and why is it important for learning?	www.bced.gov.bc.ca/early_learning/webcasts1.htm

See Also

Appendix 3: Quick References	Attention (page 142)

SECTION 5 | CASE STUDIES

The following case studies illustrate different approaches for supporting students with learning disabilities of different ages and characteristics.

Selina: a student in early Grade 1

File Review

Selina's student file from the Kindergarten year revealed that she

- worked with the speech language pathologist improve her verbal skills
- was slow learning to identify letters of the alphabet
- had difficulty with initial sounds in words and rhyming, in spite of a robust focus at school and keen support from parents at home
- is talented in dance, both ballet and tap.

Informal Assessment by Mrs. Davidson, Selina's Grade 1 teacher

Mrs. Davidson assessed all her Grade 1 students while the learning support teacher taught the class how to sustain 30 minutes of independent work. Once all students were assessed, flexible reading groups were formed. For Selina's group, Mrs. Davidson delivered guided reading lessons four times each week during the sustained work periods. Based on findings of the universal assessment, Mrs. Davidson further assessed Selina.

- A running record using the *PM Benchmarks* series determined that Selina
  - read at the early Kindergarten level
  - relied almost exclusively on picture clues to help with word prediction and reading comprehension
  - struggled to decode words and make meaning from text.
- An early literacy skills checklist and interview revealed that Selina
  - could identify most of the letters of the alphabet but not all the sounds they make
  - often mispronounced words with "th" or "or" sounds
  - had weak phonemic awareness skills (beginning/middle/end sounds, rhyming, word segmentation)
  - was beginning to be able to identify initial consonants in words
  - had difficulty spelling common one syllable words .

Consultation

Mrs. Davidson discussed her concerns with Selina's parents and the learning support teacher. As a result of this consultation

- Selina's parents agreed to have Selina's hearing and vision checked, and makes respective reports available to the school.
- The learning support teacher contacted the speech language pathologist for further assessment and advice.

Intervention

Selina's Grade 1 classroom already included accommodations for learning differences founded in practices of universal design, early intervention and differentiation. In addition to the reading group four times a week, Mrs. Davidson guided Selina to access the various other supports available to all students in her class.

- The listening center was stocked with an appropriate range of fiction and nonfiction books.
- The writing centre was situated at a computer station that included Kerzweil and CoWriter software.
- Students took turns practicing using the "Earobics" program.
- A word wall displayed new vocabulary and allowed students to take words away to copy when writing.
- Mrs. Davidson commonly scribed sentences for students as part of individualized writing instruction, and helped students create personal word books for independent use.
- Peer reading and reading with Grade Five Buddies were common practices.
- Sentence strips and cloze activities were provided for those who chose to use them in writing responses.

Monitoring

By November 1st, after two months of closely observing Selina and collecting assessment data, Mrs. Davidson determined that she was now was able to identify all the sounds of the alphabet; however, she had made little progress in phonemic awareness and continued to struggle with reading comprehension.

Further consultation and referral

Mrs. Davidson called a team meeting involving the speech language pathologist, Selina's parents and the learning support teacher to discuss next steps. The group agreed that the learning support teacher would quickly complete a standard diagnostic reading assessment to create a specific skills profile to inform targeted instruction.

This standard diagnostic reading assessment revealed:

- a significant discrepancy between Selina's ability in basic reading and reading comprehension compared with all other areas
- particular strength in listening comprehension and oral expression
- significantly lower scores on phonemic awareness measures than the average among her peers.

The learning support teacher and Mrs. Davidson began to suspect the presence of a learning disability. The team consulted with the district psychologist to determine if there were any additional interventions they could try. In addition to guided reading lessons and speech therapy, they agreed that Selina would benefit from additional work with phonemic awareness and sight word recognition. To work on this, Selina would participate in small-group instruction with the learning support teacher. Progress would be reviewed at a follow-up meeting after three weeks.

In early December, the learning support teacher carried out a second diagnostic reading assessment with Selina. Results showed little to no improvement since the previous assessment. After consulting with Selina's parents, the school team began a referral process for psycho-educational assessment.

Develop an IEP

Results of the psycho-educational assessment in March affirmed that Selina had a learning disability, and provided additional information to that already gathered by the school team. The team assisted Mrs. Davidson in preparing an Individualized Educational Plan and set a date to review the plan at the end of the school year.

Setting Goals, Objectives and Strategies

Goal 1

Selina's reading skills will improve from early Kindergarten to early Grade 1 level by end of year

Objectives

Selina will

- identify beginning, middle and end sounds in words using beginning Grade 1 text with 90 per cent accuracy
- use written context and picture clues to predict words when reading with 90 per cent accuracy.

Goal 2

Selina will improve various aspects of phonemic awareness by school year end.

Objective

Selina will master the pronunciation of difficult sound combinations:

- make the "th" sound with 90% accuracy
- make the "or" sound with 90% accuracy.

Objective

Selina will

Accurately identify the sounds in words and begin to pair them with letters by school year end:

- identify beginning and end sounds of any words at 100%.
- make rhymes with one syllable words at 80 % accuracy
- segment words into syllables with 60% accuracy.

Strategies to address goals

- Small-group instruction on phonemic awareness:
- multisensory phonemic awareness activities (sorting words by word families, moving tokens to identify phonemes, tapping out sound segments or reconstructing the sounds in a word to encode)
- speech articulation games using Linguisystems materials recommended in consultation with the speech-language therapist .
- Guided reading:
- lessons using instructional level text
- predictions based on a cover illustration
- present key vocabulary and bring forward previous knowledge
- choral reading of the text
- discussion and creation of a written or drawn response
- a selection of stories familiar to the students, and books which address up-coming topics for home reading
- monitoring, during each lesson, to determine progress and plan for the next lesson.

Implementation

The strategies in the IEP were implemented and Selina's progress monitored. The school-based team reviewed her progress in relation to the IEP goals and objectives at the end of the year in preparation for Selina's Grade 2 program.

Tony: A student transferring mid-year from another province into Grade 4

File Review

Tony's file review revealed that he

- demonstrated strong oral language skills
- struggled with reading comprehension throughout his time in school
- found it difficult to accurately express details about what he had read, either verbally or in writing
- used letter-sound relationships and picture clues to assist in decoding words
- minimally met expectations in writing
- had difficulty following written instructions
- struggled to solve word problems in math, but otherwise had excellent math skills
- received remedial support for reading comprehension in Grades 2 and 3.

Informal Assessment

Based on this information, Mr. Scott, Tony's Grade 4 teacher, completed the following informal assessments:

- A District Assessment of Reading test (DART) revealed that Tony's reading comprehension was significantly challenged although he was able to decode words and read with relative fluency.
- Informal math assessment using a teacher-developed test revealed that Tony's math reasoning was good and that he had a strong grasp of number sense.

Consultation

Mr. Scott called a meeting with Tony's parents and Ms. Campbell, the learning assistance teacher. At the meeting they shared information and made plans to provide supports for Tony. Mr. Scott's approach was to provide a combination of whole-class instruction, peer tutoring, and small-group instruction. Mr. Scott typically recorded a learning plan for students who appear to be experiencing difficulty rather than waiting to develop an IEP. Together the team created the learning plan for Tony.

Learning Plan

Name: Tony	**Grade:** 4	**Date:** December 2011

Strengths

- Uses letter-sound relationships well
- Uses picture clues well
- Overall good verbal skills
- Mathematics is a clear strength
- Likes cards, chess, basketball, video games
- Gets along well with his sister and others
- Accepts help from older sister, Sarah

Challenges

- Reading comprehension
- Following written instructions
- Word problems in math
- Written and verbal responses to reading
- Reading for pleasure

Focus for Tony

Improve overall reading comprehension

Ms. Campbell will teach:

- pre-, during, and post reading strategies during small-group instruction
- the use of graphic organizers to record ideas and notes
- teach text structures of various genres.
- teach Tony to use Kerzweil

Mr. Scott will model and teach students to make use of the same strategies throughout curricular areas. He will:

- provide partial outlines of text information
- provide new vocabulary ahead of time
- ensure understanding of directions by checking with Tony
- seat Tony by a helpful peer
- provide opportunities to discuss concepts
- encourage peer readers and audio books
- provide opportunities for Tony to use Kerzweil

Improve comprehension of word problems and written instructions

Mrs. Campbell will teach:

- the use of graphic organizers to record ideas and notes
- strategies to break instructions down, break information into chunks and represent information graphically

Mr. Scott will model the use of and teach students to make use of the same strategies throughout curricular areas. He will also:

- provide directions both in writing and verbally
- provide new vocabulary ahead of time
- check-in with Tony to ensure understanding

Improve written and verbal responses to reading

Mrs. Campbell will teach the use of graphic organizers to assist in responding, both orally and in writing.

Mr. Scott will model the use of and teach students to make use of the same strategies throughout curricular areas. He will also:

- provide opportunities to discuss concepts

Learn to enjoy reading

Mr. Scott will introduce a variety of genres to Tony, including graphic novels.

Monitoring the learning plan

After six weeks, Tony

- was beginning to use graphic organizers on his own, as determined by self-monitoring checklists
- showed some improvement in reading comprehension, through more accurate verbal and written responses in teacher-guided reading activities
- still had significant difficulty with independent reading comprehension and understanding the language of word problems in order to solve them.

Further Assessment

In order to obtain more information about Tony's current achievement level, Mrs. Campbell completed a norm referenced assessment.

Referral

Based on these results, Mr. Scott and Ms. Campbell felt they needed more in-depth information to help Tony. They decided to refer Tony to the school-based team to consider whether he might need to be assessed by the district school psychologist for a psycho-educational assessment. In the meantime, supports and monitoring of progress were maintained. The school-based team agreed and made the referral to the district school psychologist.

Develop an IEP

The psycho-educational assessment report confirmed that Tony had a learning disability, and affirmed what the school-based team saw in samples of Tony's day-to-day work, his responses to Mr. Scott's learning plan and the school-based assessment carried out by Mr. Scott and Ms. Campbell. Using Tony's learning plan, the school-based team assisted Mr. Scott in developing an Individualized Educational Plan for Tony. Strategies in the IEP were implemented and Tony's progress monitored. The team agreed to meet at the end of each reporting period to review progress.

Christopher: A Grade 9 student with a learning disability transitioning into secondary school

File Review

- Chris had been identified in Grade 2 as a student with a learning disability in the areas of reading comprehension and executive functioning.
- Chris's IEPs indicated that he had been receiving reading interventions throughout his elementary school years and was provided with adaptations, such as text readers, peer readers and graphic organizers to guide his thinking and writing.
- In middle school, Chris continued to receive learning assistance for reading comprehension and to teach him how to use graphic organizers, rubrics and personal schedules to keep track of assignments.
- In Grade 8, he had been working on improving self-advocacy skills.
- By the end of Grade 8, Chris's reading comprehension was assessed at mid-Grade 6 level, and he was coping well with assignments when provided with the appropriate adaptations.
- Difficulties in middle school included handing work in late or not at all, trouble generating ideas for written work, both starting and completing written assignments, arriving late for class, and forgetting or losing his supplies.
- When frustrated, Chris expressed anger, would not ask for help, and became generally disinterested in school.

Informal Assessment

Mr. Findlay, Chris's Grade 9 homeroom and English teacher read Chris's file before classes started. Because he was alerted to Chris's past difficulty, he quickly completed an informal reading inventory to check Chris's current level. He found that Chris was reading at about a Grade 6 level and would need to have an IEP for Grade 9. In preparation for an IEP meeting, he asked

Chris to fill out a Secondary Student Reflection Sheet (See Appendix 2) which helped identify Chris's current needs and interests and supports that he found most helpful in the past.

Consultation

Mr. Findlay met with Mrs. Hansen, the school's learning support teacher, the school counsellor, Chris and his mother to discuss Chris's program and to develop his Grade 9 IEP.

The major concerns that Chris identified were:

- keeping track of his assignments
- allocating reasonable amounts of time for completion of the work
- asking for assistance from teachers
- remembering to take the supplies he needed for the variety of classes

Setting Goals, Objectives and Strategies

Goal 1

Chris will improve his reading skills to late Grade 7 reading level by the end of Semester 1, as measured on the Grade 7 Performance Standards for Reading.

Objective 1a: Chris will apply learning strategies to understand text independently, and record their use weekly on a reading strategies checklist

Strategy: Mrs. Hansen will introduce strategies to Chris such as using questioning, predicting, identifying key words, vocabulary development, reviewing, and responding strategies. Mr. Findlay will provide opportunities for Chris to apply the strategies in English class and monitor that Chris is using them and recording his use.

Goal 2

Chris will master use of technology to compensate for reading comprehension difficulties on tests and with long reading texts.

Objective 2a: By end of first semester, Chris will be able to use independently text to speech software applications for tests and reading assignments.

Strategy: Mrs. Hansen will provide Chris with practice using Kurzweil.

Goal 3

Chris will improve his organizational skills.

Objective 3a: Chris will independently use organizational tools to complete assignments 100 per cent of the time.

Strategy: Teachers provide samples of completed work, rubrics that explain project criteria, allowances to reduce the quantity of work, extra time, chunking of tasks and a checklist for longer projects.

Objective 3b: Chris will develop and follow a schedule.

Strategy: Chris will maintain a weekly calendar to keep track of dates and a study/homework routine. Teachers will provide outlines and due dates via their homework blogs. The learning support teacher will meet with Chris weekly, phasing out support as appropriate. Chris's mom will monitor homework completion.

Objective 3c: Chris will consistently have the materials and tools that he needs for learning activities.

Strategy: The learning support teacher will help Chris set up locker checklist and electronic reminders. Daily emails will remind him of the items he needs for the day.

Goal 4

Chris will advocate appropriately for himself with his teachers.

Objective 4a: Chris will understand when he needs help and ask teachers for assistance.

Strategies: During a weekly support group, the school counsellor will work with Chris and other students on how to recognize when they need help and practice positive ways to get assistance. Chris's teachers will personally invite Chris to ask them for assistance when needed.

Objective 4b: Chris will explain to teachers the accommodations he needs to be successful.

Strategies: During weekly support group, the school counselor using modeling, role playing, and guided practice will work with Chris and other students on ways to advocate for their needs.

Implementation

Mrs. Hansen connected with all of Chris's other teachers to discuss the IEP goals and strategies. She met with

Chris during support block to set up a homework schedule on his electronic calendar, with reminders to his email about the supplies he needed for the day. She also showed him how to add the URL for each teacher's homework blog to Chris's homepage, for ease of access.

Mrs. Hansen and Chris did a weekly review during the first month to set new goals for the week. Goals were shared via email with Chris's mother. Together, Mrs. Hansen and Chris created a checklist for him to self-monitor his use of organizational strategies and to monitor the use of technology to complete assignments. They moved to less frequent reviews as independent implementation success was noted.

Mr. Findlay and Chris used the Performance Standards Reading rubric and data from Chris's reading strategies checklist to monitor reading progress and use of reading strategies.

The school counsellor included Chris in a group that was learning to practice, implement and monitor the use of self-advocacy skills.

Mrs. Hansen also offered to meet with Chris at the beginning of the next term to discuss supplies for each class and how to best communicate with his new teachers for the term.

APPENDIX 1 | GLOSSARY

Accommodations

Accommodations are adjustments that facilitate a student's ability to focus, to engage in acquisition or consolidation of a skill, and to work toward mastery. Accommodations provide a personalized approach to meet the individual needs of the student and could take the form of adaptation or modification.

Advance organizers

An advance organizer is a tool used to organize or interpret information. Advance organizers provide clarity at the beginning of a task, and direction and support throughout the task to completion.

Some specific examples of advanced organizers include:

- KWL (Know, Want to Know, Learn) charts
- Four quadrants
- Sort and predict
- Venn diagrams
- Brainstorming and categorizing
- Going for the big ideas
- Concept mapping

Advance organizers can take a variety of forms to:

- activate background knowledge; for example, through brainstorming activities to help the student transfer what they know to what they are learning
- create anticipation guides; for example, a set of statements about the topic to be presented; students can either challenge or support the ideas, thereby developing an interest in the topic
- present information visually such as concept maps, tables and charts; the teacher can present a partially completed map or a blank map as an example
- describe new content; for example, a statement of the main ideas
- highlight important concepts, such as in a book walk
- provide a narrative of the content; for example, in a story form

Affective

Affective refers to matters arising from or influencing feelings or emotions.

Assistive software

Assistive software is computer programs created to assist those with disabilities.

Attention

Attention is defined as the act or state of focusing, especially through applying the mind to an activity or thought. Attention is enabled by conditions in the child's environment and personal factors, such as the body's internal environment (worry, perception of threat, physical sensations, blood sugar levels, arousal, interests and motivation). The ability to regulate attention is not only a function of the intellect (executive function), but is also closely tied to arousal (emotional state). Arousal is important to all mental functions, including attention, perception, memory, emotion and problem-solving. Under-arousal results in an inability to select attention and/or stay on task; over-arousal has the same effect.

Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder. (ADHD) is a biologically based regulatory problem of attention, activity level and impulse control. It may or may not include elements of hyperactivity or impulsivity.

Auditory processing

Auditory processing is the taking in and making sense of sounds received through the ears, enabling one to comprehend spoken language.

Chunking

Chunking involves breaking a task into easy to manage and often sequential pieces. Chunking helps the student move forward when they feel stuck.

Cognitive Mapping

A method used to process information allowing the "mind's eye" to visualize images.

Cognitive processing

Cognitive processing is a term used to describe thinking and applying knowledge.

Collaboration

Collaboration is a way of interacting in which people approach a task together. Successful collaboration is characterized by the following features: it is voluntary, there is mutual trust and open communication among the people involved, identification/clarification of the task is a shared, the goal is shared by all participants, each participant's contribution is valued equally, all participants skills are employed in identifying and selecting problem-solving strategies, and there is shared responsibility for the outcome.

Compartmentalize

Compartmentalizing, in education terms, refers to sectioning off or categorizing information – the opposite of integration and application.

Compensatory strategies

Compensatory strategies are generally actions and tools the student uses to make up for a weakness/difficulty. Compensatory strategies are identified based on the student's assessed needs and strengths/preferences. For example, if the student has a great deal of difficulty remembering things such as what to put in their backpack (homework, lunch, etc.), using a list, an audio file, or a set of pictures as part of the backpack routine is a compensatory strategy. Choices made depend on the strengths/preferences of the individual student.

Conceptual Relationships

Conceptual Relationships are the connections made between concepts or ideas.

Concrete

Concrete, in education, usually refers to a physical representation or manipulative.

Differentiated instruction

Differentiated instruction is a flexible approach to teaching that employs strategies to accommodate a range of abilities and learning styles. Differentiation can address content, process, procedures, presentation strategies or assessment.

Dogwood diploma or certificate

A Dogwood diploma and certificate are the informal terms applied to the British Columbia Certificate of Graduation granted by the Ministry of Education to students who meet British Columbia's secondary-school graduation requirements.

Dyslexia

According to the National Centre for Learning Disabilities (2005), "Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective instruction. Secondary consequences might include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge." (as cited in *Educator's Diagnostic Manual of Disabilities and Disorders*, 2007)

Dysgraphia

According to Pierangelo & Guiliani (2006), "Dysgraphia is a neurological disorder characterized by writing disabilities. The disorder generally emerges when students are introduced to writing. They make inappropriately sized and spaced letters or write incorrect or misspelled words, in spite of thorough instruction." (National Center of Neurological Disorders and Strokes, 2006; as cited in *Educator's Diagnostic Manual of Disabilities and Disorders*, 2007)

Dyscalculia (arithmetic disorder)

According to the National Centre for Learning Disabilities (2005) "Dyscalculia refers to a wide range of life-long learning disabilities involving math. It affects a person's ability to understand and manipulate numbers, perform mathematical operations, or conceptualize numbers themselves as an abstract concept of comparative quantities" (as cited in *Educator's Diagnostic Manual of Disabilities and Disorders*, 2007)

Dysorthographia (spelling disorder)

Dysorthographia is a learning disability associated with the ability to use letters to construct words in conventional ways. Spelling challenges derive from problems with an awareness of and memory for the structures of language.

Error analysis

Error analysis studies the types and causes of errors in student work, whether it is in reading, writing, mathematics, acquisition of language or any other skill area.

Executive functions

Executive functions are the decision-making and planning processes that are invoked at the start of a task and in the face of a challenge or project. Executive functions include inhibiting actions, restraining and delaying responses, attending selectively, setting goals, strategizing, planning and organizing, maintaining and shifting attention or purpose, managing time and space, self monitoring and checking. Executive functions are used when setting goals, manipulating those plans in working memory and determining what is necessary in order to execute them.

Expressive language disorder

Expressive language disorders are characterized by difficulties using spoken or written language. Students may have limited vocabularies and use the same array of words regardless of the situation. Expressive language disorders may appear as immature speech, often resulting in interaction difficulties.

Fluency (in reading)

Reading fluency describes well-paced, automatic and accurate reading.

Functional behavioural assessment (functional assessment of needs, or functional needs assessment)

Functional behavioural assessment involves observation and assessment of a student within an environment in which behaviour is likely to occur. The purpose is to understand contextual factors and identify needs that must be addressed to support the student's independence, adjustment and learning. Functional behavioural assessment seeks to understand why a student engages in a particular behaviour, in order to identify the positive or socially acceptable behaviours the student can use to meet the same function or need.

Gifted

A student is considered gifted when he or she possesses demonstrated or potential abilities that give evidence of exceptionally high capability with respect to intellect, creativity or the skills associated with specific disciplines. Students who are gifted often demonstrate outstanding abilities in more than one area. They might demonstrate extraordinary intensity of focus in their particular areas of talent or interest. However, they might also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning.

Graphic organizers

A graphic organizer is a visual framework or representation of concepts, information and knowledge that can incorporate both text and pictures. Graphic organizers help construct meaning in reading, writing and speaking. Graphic organizers are widely available and include storyboards, charts, concept mapping, KWL tables and mind-mapping.

High-frequency words

High frequency words are those most-frequently used in the English language, commonly known as sight words that students are expected to learn to read without sounding out.

Informal Assessment

A method of measuring performance by using techniques such as observing or interviewing, where the graded individual is less aware of the assessment in progress

Language processing

Language processing refers to the way human beings process speech or writing and understand it as language. Language processing deficits (receptive and expressive) can result in difficulty with

- making connections between words and the ideas they represent
- organizing thoughts verbally and in written form
- understanding instructions and expressing oneself.

Learning interview

Learning interviews between teacher and student are used to better understand the reason(s) behind a student's difficulty and in particular the use of a particular strategy in learning.

Learning strategy

Learning strategies are techniques that maximize student strengths and provide structures that enable students to learn more effectively. Some examples of learning strategies include use of graphic organizers, mental rehearsal, visualization techniques and assistive software.

Learning style

Learning style is an individual's natural or preferred way of receiving, processing and manipulating stimuli or information. A visual/spatial learner learns best by seeing, reading and visualizing. An auditory (linguistic) learner learns best by hearing, talking and singing. A kinesthetic learner learns best by doing, acting out and building.

Long-term memory

Long-term memory is the system the brain uses to store, manage and retrieve information over a long period of time. It has unlimited capacity and can hold information for a long time.

Mapping

Mapping is a term used to describe an information management system used to organize, generate and/or collect information.

Mnemonic Strategies

Mnemonic strategies are those which use word association to improve intake and recall of content.

Modifications

Modifications are instructional and assessment-related decisions made to accommodate a student's education needs. They consist of individualized learning goals and outcomes, which are different than learning outcomes of a course or subject. Modifications might be considered for those students whose special needs are such that they are unable to access the curriculum (i.e. students with limited awareness of their surroundings, students with fragile mental/ physical health, students medically and cognitively/multiply challenged).

Morpheme

Morpheme is the smallest part of a word that has conceptual meaning.

Numeracy

Numeracy is a term used to describe the ability to reason with and understand the use of numbers and their operations.

Occupational Therapist

Occupational therapists are specially trained and certified experts. In education, they aim to improve the student's performance of the tasks and activities important to success at school by ensuring an understanding and matching of the student's skills and abilities with expectations placed on them at school. This may include use of assistive devices or direct intervention such as therapy to develop motor coordination, visual-motor coordination and/or visual perceptual skills.

Phoneme

A phoneme is the smallest unit of speech distinguishing one sound from another.

Phonics

Phonics is a method of teaching reading by teaching the phonetic sounds of letters followed by the phonetic sounds of combined letters. Phonics usually involves controlled vocabulary.

Phonological awareness

Phonological awareness is the ability to discern sounds and sound sequences, including an awareness that words are made up of sounds in sequences.

Phonological processing

Phonological processing consists of the analysis and synthesis of phonemes (the smallest unit of recognized sounds); for example

- understanding rhyme; e.g. that ball rhymes with call
- understanding onset median and final sounds; e.g. that ball and bird share the same initial sound
- differentiating sounds (i.e. segmenting and blending a word in its constituent sounds p-l-ee-z to make please)
- differentiating syllables (e.g. counting the four syllables in wishy-washy)

Physical Therapist

Physical therapists are licensed experts in movement and function. Physical therapists in the school setting use a variety of treatments such as therapeutic exercises. They often consult on the design of education settings to support movement, prevent injuries and improve participation.

Processing speed

Processing speed is the rate at which an individual can process incoming and outgoing information. Individuals with slower processing speed can have difficulty with comprehension and following instructions. They tend to complete tasks slowly.

Proprioceptive

Proprioceptive pertains to stimuli that originate from within the body.

Psycho-educational assessment

Psycho-educational assessment is a testing process that utilizes standardized instruments such as tests and questionnaires to identify a student's strengths and weaknesses across many areas of functioning and attributes. These areas include but are not limited to cognitive development, academic achievement, adaptive functioning, visual perception, motor coordination, visual-motor integration, and behaviour (e.g. attention, aggression, etc.).

Rating scale

A rating scale is a tool that estimates acquisition of a skill. Generally, the scale has three to five intervals to show progress toward mastery. Rating scales could be used for assessing a variety of skill-based goals, such as work habits.

Receptive language processing

Receptive language processing is the cognitive process of understanding oral and written language and other symbols.

Receptive Vocabulary

Receptive Vocabulary is the body of words that an individual recognizes well enough to use to understand by reading or hearing.

Rubric

A rubric is a tool used to assess student progress along a continuum. It is a grid comprised of explicit criteria describing levels of potential achievement, often accompanied by a rating scale. The BC Performance Standards are examples of rubrics that have been created to assess skill levels of individual students in relation to the widely held expectations for the student's grade placement.

Scaffolding

In education, scaffolding support is the practice of providing support to a student in acquiring a skill or task or obtaining or expressing knowledge until the student can be successful independently.

School-based team

A school-based team is a school-based group that works together to develop and implement instructional and/or management strategies and co-ordinate resources to assist students with special needs.

Self-advocacy

Self-advocacy involves communicating one's needs to others who can help, and actively taking part in using strategies that support one's own progress. A student can self-advocate by being aware of his or her disability, strengths and needs, and by using strategies to deal with them.

Self-monitoring

Self-monitoring refers to the practice of observing and noting one's own behaviour or actions.

Self-regulation

Self-regulation refers to an individual's ability to manage his or her own thoughts and behaviour in order make good decisions, solve problems, and interact socially. In turn, these abilities rely on the sub-skills of self-monitoring (problem identification and attention), self-evaluation (appropriate goal setting), and self-reinforcement (evaluating performance and resetting goals when necessary).

Sensory integration (or processing)

Sensory integration involves processing information gathered by use of the seven defined senses: visual input, auditory input, olfactory input, taste, tactile input, vestibular input (balance/movement), and proprioceptive input (position.) Sensory integration occurs when the brain uses the information gathered through the senses to respond appropriately.

Short-term memory

Short-term memory is a process of the brain where information is held temporarily until it is transferred to long-term memory or forgotten. It is similar to working memory, but more passive.

Sight vocabulary

Sight vocabulary consists of words that one recognizes automatically when reading without sounding out.

Task-approach strategies

Task-approach strategies help the student initiate and sustain efforts on a variety of tasks. They help the student with a learning disability move beyond passivity into an active role in task completion. Simple strategies include:

- mnemonics, to help the student remember the steps to follow: i.e. HOMES (names of the Lakes are: Huron, Ontario, Michigan, Erie and Superior)
- picture prompts: e.g. a visual schedule of the daily agenda
- rhymes or audio files to listen to: e.g. 'When two vowels go walking, the first one does all the talking, and he says his name!'

Text-to-speech, speech-to-text computer software

Text-to-speech applications are software programs that allow a computer to read aloud to the listener, using synthesized voice. Likewise, speech-to-text applications are programs which let the speaker use a computer to convert spoken words into text, which can then be manipulated on the computer system.

Transitions

Transitions refer to the passage of a student from one environment to another: home to school, grade to grade, school to school, school district to school district, or from school to community life and/or post-secondary education. Transition planning is the preparation, evaluation and implementation of the plans required to enable students to make major transitions during their lives.

Vestibular

Vestibular refers to the sensory system relating to balance and equilibrium.

Visualization

Visualization is the act of processing information into a visual form.

Visual perception (or processing)

Visual perception is the process of making sense of information taken in through the eyes.

Visual spatial processing

Visual spatial processing is the understanding of how objects are positions in space in relation to oneself. Visual spatial processing involves understanding physical distance as well as the relationship of items on paper.

Word-prediction software

Word-prediction software automatically predicts the word a person would type, based on spelling, word frequency and context. The software might also include features such as spell checking, speech synthesis, and hot-keys for frequently used words.

Working memory

Working memory refers to a system in the brain that holds new information while it is being processed and used. Working memory is a component of short-term memory.

APPENDIX 2 | PLANNING TOOLS

Appendix Two *Planning Tools* provides a variety of reproducible materials to help plan supports for students with learning disabilities, including; tips to help students develop self advocacy skills, gathering input from students and parents for IEP development, recording adaptations that work, and recording student reflections. The *Learning Disabilities Instructional Support Planning* Process provides a useful tool to determine meaningful instructional supports based on needs of individual students with learning disabilities.

Advocacy

Tips for Parents to Help Children Develop Self-Advocacy Skills

- Talk with your child about his or her special education needs and what they mean for learning. You can clarify your understanding of your child's unique learning characteristics by consulting with the staff who conducted assessments and by reading articles and books.
- Provide specific feedback that helps your child understand how they learn best, such as "You seem to remember better when you get a chance to see the information while listening."
- Explain assessment results, so your child understands his or her abilities and needs and the implications for schooling and life.
- Stress that your child is not alone with his or her difficulties. Parents, grandparents, siblings and school staff can all help with learning.
- Describe the assistance that is available to your child in a concrete, realistic and positive manner.
- Role-play ways to handle difficult situations at school.
- Seek resources for support and information. Help your child, as they mature, access those resources and become a self-advocate for their own education needs.
- Encourage your child to be an active participant in the learning team by participating in IEP conferences (where appropriate) and setting realistic goals as they progress through school.
- Introduce your child to books that deal with challenges similar to those they face themselves.

Adapted from *Tips For Parents on Helping Their Children Develop Self-Advocacy Skills.* Alberta Education, Alberta, Canada (2006)

Self Advocacy

Be Your Own Self-Advocate: Tips for Students

Being a self-advocate means understanding and recognizing that there are times when you need to ask for things, such as an alternative assignment, an extension on a deadline or notes from a class you missed. The idea is to let the teacher know that you have thought about the situation and are prepared to contribute to a solution.

When you go to your teacher with a solution, you let them know that you are taking responsibility for your situation and that you don't expect them to solve the problem for you. Be flexible. You might need to negotiate a solution that is acceptable to everyone involved.

When you need something changed, it's your responsibility to bring it to the attention of your teacher. Plan and practice what you want to say. Always go with a solution and a positive attitude.

1. State the problem and find an example.
2. Let people know you are working on this problem (so they don't think you are trying to avoid work or are not trying hard enough).
3. Briefly explain your solution to the problem.
4. Ask for his or her help in using the accommodation.

You might find yourself saying:

"I am working on my reading skills, but I have trouble with exam questions. I understand better when someone reads the questions to me. One of the peer tutors is willing to tape the test questions for me- would you be willing to give this a try?"

"I work hard to spell correctly, but I need to use a spell checker. I always have one with me in class. Is it okay for me to use it on tests?"

"I need extra time to show all that I know on a test. If I could have an extra half hour to finish the social studies test, my result would be a better reflection of what I know. I'd be willing to stay through lunch hour to do this."

Adapted from *Tips For Parents on Helping Their Children Develop Self-Advocacy Skills.* Alberta Education, Alberta, Canada (2006)

Parent Input

About My Child – Form A

Student Name_____Date_____

Parent's Name_____

Identifying priorities is important in developing a meaningful IEP. This form will provide important information for school staff to consider. If you need additional space, feel free to attach another sheet of paper.

My child has these strengths:

- _____
- _____
- _____
- _____
- _____

My child has these needs:

- _____
- _____
- _____
- _____
- _____

My first priority for my child this year is:

_____

_____

_____

_____

This is what I will do at home to help my child make progress:

_____

_____

_____

How I will know my child has made progress:

_____

_____

_____

Another important priority for my child this year is:

_____

_____

_____

This is what I will do at home to help my child make progress:

_____

_____

_____

How I will know my child has made progress:

_____

_____

_____

Parent's Name_____ Date:_____

Adapted from *Tips For Parents on Helping Their Children Develop Self-Advocacy Skills*. Alberta Education, Alberta, Canada (2006)

About My Child – Form B

Your contribution to planning for your child is important in developing a meaningful IEP. This form is for you to write down observations and points for school staff to consider. If you need additional space, feel free to attach another sheet of paper.

The main achievement(s) of last year was (were):	
Recommendations you feel are important from the past report card were:	
Progress you have seen with individual goals are:	
One or two concerns are:	
What my child likes best about school, in his or her own words is:	
What my child would like to accomplish this year, in his or her own words is:	
What my child says would help him or her learn better at school is:	

Adaptations

Adaptation Log

Use this list to record the adaptations that have been tried, or are currently being used for a student. Include additional adaptations in the blanks at the end of each section or observations about which adaptations are successful and which are not.

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

Physical Arrangements

- ☐ Seat student near the teacher.
- ☐ Seat student near a positive role model.
- ☐ Stand near the student when giving directions or presenting lessons.
- ☐ Avoid distracting stimuli (e.g. air conditioner, high traffic areas).
- ☐ Arrange different work areas in the room.
- ☐ Comments:_____ _____

Lesson Presentation

- ☐ Provide peer tutoring.
- ☐ Write key points on board.
- ☐ Provide visual aids such as large print, films, charts, graphics, advanced organizers or notes.
- ☐ Use text-reading technology to provide access to written work.
- ☐ Teach through multisensory modes: visual, kinesthetic, auditory.
- ☐ Repeat directions to the student after they are given to the class, then have him or her re-state and explain the directions to the teacher.
- ☐ Provide written outlines of lessons, with main ideas.
- ☐ Allow student to record lessons to review later.
- ☐ Have student review key points orally.
- ☐ Accompany oral directions with written directions to refer to later.
- ☐ Provide and post a work sample, and refer to it often.
- ☐ Use underlining or highlighting to help student find main ideas and details in text.
- ☐ Break longer presentations into shorter segments.
- ☐ Use technology to augment presentations and provide opportunities for interaction (e.g. SMART board).
- ☐ Comments: _____

Assignments

- ☐ Give extra time to complete tasks.
- ☐ Simplify complex directions.
- ☐ Lower the reading level of assignments.
- ☐ Provide text-reading technology for reading assignments.
- ☐ Provide word-prediction and other software for written assignments.
- ☐ Require fewer correct responses to achieve completion (quality vs. quantity).
- ☐ Provide study skills training and personalized learning strategies.
- ☐ Shorten assignments, breaking the work into smaller segments.
- ☐ Allow computer-printed assignments prepared by the student or dictated by the student.
- ☐ Use self-monitoring checklists, charts, cue cards, etc.
- ☐ Allow printing instead of cursive handwriting on assignments.
- ☐ Monitor student's self-paced assignments (daily, weekly, bi-weekly).
- ☐ Arrange for homework tasks to make it home with clear concise directions.
- ☐ Recognize and give credit for oral participation in class.
- ☐ Comments: _____

Test Taking

- ☐ Allow open book exams.
- ☐ Give exams orally.
- ☐ Give take-home tests.
- ☐ Allow student to give recorded test answers.
- ☐ Provide text-reading technology for reading assignments.
- ☐ Give frequent short quizzes, not long exams.
- ☐ Allow extra time for exams.
- ☐ Provide text-reading technology for exams
- ☐ Provide word-prediction and other software to assist with writing.
- ☐ Avoid placing student under pressure of time or for completion.
- ☐ Comments: _____

Organization

- ☐ Provide peer assistance with organizational skills.
- ☐ Set up one-binder system for notes and assignments.
- ☐ Assign a volunteer homework buddy.
- ☐ Allow student to have an extra set of books at home.
- ☐ Prepare advance study/assignment schedules with students.
- ☐ Send daily/weekly progress reports home.
- ☐ Develop a reward system for in-school work and homework completion.
- ☐ Provide student with a homework assignment book or develop a homework website.
- ☐ Comments: _____

Behaviours

- ☐ Keep rules simple, clear and available for reference.
- ☐ Use timers to facilitate task completion.
- ☐ Structure transitional/unstructured times (e.g. recess, hallways, lunchroom).
- ☐ Praise specific behaviours.
- ☐ Teach self-monitoring strategies.
- ☐ Give special privileges/positive reinforcements, and increase their immediacy.
- ☐ Make prudent use of negative consequences.
- ☐ Allow for short breaks between assignments.
- ☐ Use non-verbal signals to cue students to stay on task.
- ☐ Mark students' correct answers, not their mistakes.
- ☐ Implement a behaviour-management system.
- ☐ Allow legitimate movement and student time-out-of-seat activities.
- ☐ Ignore inappropriate behaviours that are not drastically outside classroom limits.
- ☐ Contract with the student.
- ☐ Implement reasonable time-out procedures.
- ☐ Comments: _____

Student Reflections

Student/Teacher Interview

The following questions provide a guide to discuss the student's perceptions about school and learning.

Teacher:_____Date:_____

Student's Name:_____ Grade:_____

Birth date:_____ Age:_____

Schools previously attended:

_____

_____

Best year in school? Why?

_____

_____

Worst year in school? Why?

_____

_____

Impression of present school year (easy parts/hard parts).

_____

_____

Ways to change school to make it better?

_____

_____

Favourite friends in school/friends at home:

_____

_____

Family – parents, siblings:

_____

_____

What would you like to be when you grow up?

_____

_____

Favourite fun activities at home/school:

_____

_____

Three wishes you might have:

_____

_____

Ways we can help you the most:

_____

_____

Additional comments:

_____

_____

Informal Student Interview: BCTF: The Vital Link, Volume 9, Number 1, Fall 2003

Student Reflection (Secondary)

Name:_____ Date:_____

A. Tools that help me learn

What writing tool works best for me (e.g. pen, pencil, colour of ink, computer)?

_____

What kind of paper helps me keep organized (e.g. wide-ruled, unlined, wide margins, pre-punched)?

_____

What colour paper do I find the easiest to read?

_____

What binder system works best for me?

_____

What other supplies help keep me organized (e.g. white out, sticky notes, ruler)?

_____

What calculator works best for me (e.g. size, features)?

_____

What spell checker works for me?

_____

What is my favourite dictionary?

_____

What other reference books help me learn?

_____

What computer programs are helpful to my learning?

_____

B. In the classroom

What seating works best for me?

_____

What do I read best from?

☐board ☐overhead ☐projector ☐chart paper ☐my own copy

Does the type of printing make a difference (e.g. printed, handwritten or typed)?

_____

Does the size and spacing of print make a difference?

_____

C. Which directions work best for me?

Rank in order from 1-12, 1 being the best, OR place a checkmark beside the strategies that work best for you.

_____ Teacher explains aloud.

_____ Teacher writes directions on the board.

_____ Teacher does example on the board.

_____ Teacher asks another student to demonstrate.

_____ Teacher asks all students to try a sample at their desks.

_____ I read the direction while the teacher reads them.

_____ I read the directions on my own.

_____ Teacher shows me at my desk.

_____ Another student explains a second time and answers my questions.

_____ I watch what another student does.

_____ I try it on my own and then compare with another student.

D. Tricks I use to keep myself organized

_____

E. Tricks I use to keep myself focused and on task

_____

_____

F. Special things that teachers can do to help me learn

_____

Adapted from *Tips For Parents on Helping Their Children Develop Self-Advocacy Skills*. Alberta Education, Alberta, Canada (2006)

Student Reflection (Primary)

Name:_____ _____ Date:_____

Learning Strengths	Learning Challenges

List some things you are good at doing outside of school – draw a picture of one of these strengths:

- _____
- _____
- _____
- _____
- _____

List some things you find challenging doing outside of school – draw a picture of one of these challenges:

- _____
- _____
- _____
- _____
- _____

Adapted from *Tips For Parents on Helping Their Children Develop Self-Advocacy Skills*. Alberta Education, Alberta, Canada (2006)

The Learning Disabilities Instructional Support Planning Process helps to connect information about a student's learning profile with the appropriate interventions.

Learning Disabilities Instructional Support Planning Process

Student's Name: _____ **Grade:** ___ DOB: _____

School: _____ **Date:** _____

DOMAIN	STRENGTHS	NEEDS		A	B	C
				Choose one (✓), see note below*		
ACADEMIC						
SELF-DETERMINATION/ INDEPENDENCE						
COGNITIVE FUNCTIONING						
SOCIAL/EMOTIONAL						

*Team Decision: N/A = no impairment of functionality, A = Mild impairment of functionality; B = Moderate impairment of functionality; C = Complex and/or intense impairment of functionality.

Goals Developed to Address Needs Identified Above:

Objectives and Strategies to Address Goals Developed: (What interventions/services/strategies can maximize functioning?)

Data Sources to Monitor Outcome/s and Goal Achievement: (What are the outcomes? How useful were the interventions? How can the goals/strategies/services be improved for better outcomes?)

Review Date:

DESCRIPTION OF DOMAIN & POSSIBLE SOURCES OF INFORMATION		A (MILD)	B (MODERATE)	C (COMPLEX)
ACADEMIC	The Academic Domain consists of oral language, reading, writing and mathematics. • Oral Language – expressive and receptive • Reading – phonemic awareness, decoding, vocabulary, fluency, comprehension • Writing – fine motor (printing, cursive), written expression (meaning, form, style, conventions) • Mathematics – number sense, operations, measurement, patterns, geometry, data analysis, mathematical problem solving • Application of reading, writing, mathematics to other subject areas **Possible sources of information** • Classroom observation • Parental input • Teacher(s) • File review • Student interviews • Academic assessment, Curriculum-based assessment, Informal individual assessments • Level B assessments, Level C Psycho-educational assessment	**The student's level of functioning**		
		Student exhibits mild impairments in functioning occasionally and intermittently	Student exhibits moderate impairment in functioning but not necessarily in every setting or at all times	Significant impairment of functioning occurs across multiple settings
		☐ Working on the performance standards of the curriculum with minor adaptations ☐ Minor difficulties with receptive language use ☐ Minor difficulties with expressive language use ☐ Minor difficulties with reading decoding ☐ Minor difficulties with reading comprehension ☐ Minor difficulties with writing ☐ Minor difficulties with mathematics ☐ Shows variability in academic skills and requires mild level of support (between and/or within subject areas) ☐ Aware of several learning strategies but may use some of them inconsistently ☐ Represents learning in a variety of forms but requires options ☐ Minor difficulties attending to instruction and learning activities ☐ Minor difficulties independently completing tasks in one or more of the academic areas ☐ Some difficulty with organization (time, materials) ☐ Tendency to be slow in completing work ☐ Some carelessness with work/paperwork	☐ Working on the performance standards of the curriculum with significant adaptations ☐ Moderate difficulties with receptive language ☐ Moderate difficulties with expressive language ☐ Moderate difficulties with reading decoding ☐ Moderate difficulties with reading comprehension ☐ Moderate difficulties with writing ☐ Moderate difficulties with mathematics ☐ Variations in academic skills require moderate level of support (between and/or within subject areas) ☐ Has a few learning strategies and may use them inconsistently ☐ Represents learning through a limited variety of forms ☐ Moderate difficulties attending to instruction and learning activities ☐ Significant difficulties independently completing tasks in one or more of the academic areas ☐ Moderate difficulty with organization (time, materials) ☐ Slow to complete work, may require intermittent to ongoing monitoring to ensure completion ☐ Requires periodic to regular assistance with work/paperwork in terms of care and materials (i.e., binder, desk set up, etc.)	☐ Student's needs require significant adaptations and/or some modified learning outcomes ☐ Significant difficulties with receptive language ☐ Significant difficulties with expressive language ☐ Significant difficulties with reading decoding ☐ Significant difficulties with reading comprehension ☐ Significant difficulties with writing ☐ Significant difficulties with mathematics ☐ Variations in academic skills require significant level of support (between and/or within subject areas) ☐ Requires considerable practice and ongoing support to apply learning strategies ☐ Restricted to representing learning in few forms ☐ Significant difficulties attending to instruction and learning activities ☐ Rarely able to independently complete tasks in one or more of the academic areas ☐ Substantial difficulty with organization (time, materials) ☐ Unable to complete work on time unless directly assisted ☐ Needs direct/regular contact regarding work/paperwork in terms of care and materials
		Examples of Support		
		☐ Some file management ☐ Some adaptations of curriculum in specific areas of need ☐ Some smaller group instruction and/or individualized instruction in areas of academic need based on ongoing assessment ☐ Provide a variety of adaptations for representing learning based on student's strengths ☐ Some use of cueing/teacher redirection/preferred seating ☐ Intermittent use of accommodations (for example, pre-teaching)	☐ Some file management and monitoring ☐ Significant adaptations of curriculum in specific areas of need ☐ High levels of smaller group instruction and/or high levels of individualized instruction in areas of need (academic, learning strategies, organization) based on ongoing assessment ☐ Provide a variety of adaptations for representing learning based on student's strengths ☐ Frequent use of cueing/teacher redirection/preferred seating ☐ Use of accommodations (reader, scribe, computer, etc.)	☐ Daily or frequent contact throughout the week ☐ Significant adaptations and/or modifications of curriculum in specific areas of need ☐ Intensive smaller group instruction and/or intensive individualized instruction in areas of need (academic, learning strategies, organization) based on ongoing assessment ☐ Provide a variety of adaptations or modifications for representing learning based on student's strengths ☐ Constant use of cueing/constant redirection/preferred seating ☐ Use of accommodations (reader, scribe, computer, etc.)

DESCRIPTION OF DOMAIN & POSSIBLE SOURCES OF INFORMATION		A (MILD)	B (MODERATE)	C (COMPLEX)
SELF-DETERMINATION/INDEPENDENCE	The Self-Determination Domain consists of awareness of strengths and weaknesses, ability to evaluate learning (environment, process, product,) ability to solve problems and make informed and appropriate decisions. • Understanding personal strengths and weaknesses • Ability to describe his/her individual learning disability • Determining preferred learning strategies and ways of demonstrating knowledge • Ability to make appropriate personal choices • Setting realistic personal goals • Ability to solve academic and social problems **POSSIBLE SOURCES OF INFORMATION** • File review • Parental input • Teacher(s) • Vineland Adaptive Behaviour Scales • Scales of Independent Behaviour • Revised (SIB-R) • Behaviour Assessment System for Children (BASC) • Supports Intensity Scale (SIS) • Other	**The student's level of functioning**		
		Student exhibits mild impairments in functioning occasionally and intermittently	Student exhibits moderate impairment in functioning but not necessarily in every setting or at all times	Significant impairment of functioning occurs across multiple settings
		☐ Aware of and uses most areas of personal strength ☐ Aware of some areas of personal weakness and some successful ways to address them ☐ Functions independently in the classroom environment most of the time ☐ Follows most school/class routines ☐ May require some staff intervention (teacher, specialist, paraprofessional) ☐ May require assistance with some activities during transitioning ☐ Actively seeks assistance from staff when needed ☐ Occasional difficulties adapting to new teacher(s)/educational staff ☐ Some problems with academic problem solving ☐ Some problems with social problem solving ☐ May fail to accept personal responsibility for some academic/social difficulties ☐ Occasionally discouraged with self	☐ Some awareness of but doesn't use personal strengths ☐ Aware of some areas of personal weakness but struggle with what to do to address them ☐ Has difficulty functioning independently in the classroom environment ☐ Occasionally follows some, but not all, school/class routines ☐ Requires frequent staff intervention (teacher, specialist, paraprofessional) ☐ Requires assistance frequently during transitioning ☐ Occasionally seeks assistance from staff ☐ Frequent difficulties adapting to new teacher(s)/educational staff ☐ Frequent problems with academic problem solving ☐ Frequent problems with social problem solving ☐ Fails to accept personal responsibility for academic/social difficulties ☐ Often personally discouraged	☐ Unaware of personal strength ☐ Unaware of personal weakness ☐ Is unable to function independently in a classroom environment ☐ Frequently does not follow school or class routines ☐ Requires constant staff intervention (teacher, specialist, paraprofessional) ☐ Requires continuous assistance during transitioning ☐ Constant problems with academic problem solving ☐ May avoid seeking assistance with staff completely ☐ Extreme challenges with adapting to new teacher(s)/educational staff ☐ Constant problems with academic problem solving ☐ Constant problems with social problem solving ☐ Places blame for difficulties on external circumstances ☐ Lack of "agency" or "locus of control" (does not believe she/he has any power to make change/s) ☐ Extremely discouraged with self, resulting in negative self-concept
		Examples of Supports		
		☐ Some file management ☐ Instruction in self-advocacy skills, academic and social problem solving skills and learning strategies ☐ Support for significant transitions (school to school, school to community) ☐ Some structured support to develop self-awareness/self esteem	☐ Some file management and monitoring ☐ Targeted direct instruction in self-advocacy skills, academic and social problem solving skills and learning strategies ☐ Support for major transitions (semester changes, staff changes) ☐ Structured support to develop self-awareness/self esteem	☐ Daily or frequent contact throughout the week ☐ Intense direct instruction in self-advocacy skills, academic and social problem solving skills and learning strategies ☐ Support for regular transitions (class to class, beginning and end of day) ☐ Intense specialized support to develop self-awareness/self-esteem

DESCRIPTION OF DOMAIN & POSSIBLE SOURCES OF INFORMATION		A (MILD)	B (MODERATE)	C (COMPLEX)
COGNITIVE FUNCTIONING	The Cognitive Functioning Domain includes thinking, reasoning skills and problem solving. The ability to generalize learning. • Higher order thinking skills • Language processing • Phonological processing • Visual-spatial processing • Processing speed • Memory • Attention • Executive functions • Motor Skills (fine and gross) **POSSIBLE SOURCES OF INFORMATION** • File review • Parental input • Teacher(s) • Level C psycho-educational Assessment • Wechsler Intelligence Scale for Children (WISC) • Woodcock-Johnson Psycho-Educational Battery (WJPB)-Cognitive • The Stanford-Binet Intelligence Scale	**The student's level of functioning**		
		Student exhibits mild impairments in functioning occasionally and intermittently	Student exhibits moderate impairment in functioning but not necessarily in every setting or at all times	Significant impairment of functioning occurs across multiple settings
		☐ May struggle to complete tasks and assignments ☐ Minor difficulties with multi-step or complex tasks ☐ Mild difficulty with problem solving, especially when dealing with abstractions ☐ Processing difficulties (attention, memory, phonological processing, language processing, visual-spatial processing, processing speed and planning, etc.) that minimally impact learning ☐ Some difficulty acquiring new information, making connections, generalizing ☐ Inconsistent use of learning strategies ☐ Some difficulty with fine motor coordination ☐ Understands task/work assigned but may need cuing to get started and complete	☐ Often fails to complete tasks and assignments ☐ Moderate difficulty with multi-step complex tasks ☐ Moderate difficulty with problem solving especially when dealing with abstractions ☐ Processing difficulties (attention, memory, phonological processing, language processing, visual-spatial processing, processing speed and planning etc.) that moderately impact learning ☐ Moderate difficulty acquiring new information, making connections and generalizing ☐ Lacks knowledge of appropriate learning strategies ☐ Moderate difficulty with fine motor coordination ☐ Struggles to get started and continue with task/work assigned unless teacher checks in regularly	☐ Rarely completes tasks and assignments ☐ Significant difficulty with multi-step or complex tasks ☐ Significant difficulty with problem solving especially dealing with abstractions ☐ Processing difficulties (attention, memory, phonological processing, language processing, visual-spatial processing, processing speed and planning, etc.) significantly impact learning ☐ Significant difficulty acquiring new information, making connections and generalizing ☐ Significant lack of learning strategies ☐ Significant difficulty with fine motor coordination ☐ Unable to start task/work without assistance to begin and to complete
		Examples of Supports		
		☐ Some file management ☐ Some adaptation to support curriculum ☐ Some direct instruction based on ongoing assessment of skill development and instructional need ☐ Some instruction in compensatory strategies to support independent functioning ☐ At times or periodically, may require specialist teacher support	☐ Some file management and monitoring ☐ Adaptations to support curriculum ☐ Targeted direct instruction based on ongoing assessment of skill development and instructional need ☐ Ongoing instruction in compensatory strategies to support independent functioning ☐ Regular specialist teacher support	☐ Daily or frequent contact throughout the week ☐ Adaptations and/or modifications are highly individualized ☐ Intense direct instruction based on ongoing assessment of skill development and instructional need ☐ Individualization of learning outcomes ☐ Ongoing specialist teacher support integrated with classroom practice

DESCRIPTION OF DOMAIN & POSSIBLE SOURCES OF INFORMATION	A (MILD)	B (MODERATE)	C (COMPLEX)
SOCIAL/EMOTIONAL	**The student's level of functioning**		
The Social / Emotional Domain consists of adapting and coping behaviours across environments and contexts to meet social/ community expectations. Exhibit social and emotional behaviours that are acceptable and support learning. • Social and emotional functioning • Impulse control • Mood (optimism, depression) • Anxiety • Appropriate reciprocal Social behaviour • Ability to make appropriate social choices • Setting realistic social and learning goals • Difficulties responding to routine changes **Possible sources of information** • File review • Parental input • Teacher(s) • Observation • Student interviews • Physician/Psychiatrist • Counsellor • Medication review • Other	Student exhibits mild impairments in functioning occasionally and intermittently	Student exhibits moderate impairment in functioning but not necessarily in every setting or at all times	Significant impairment of functioning occurs across multiple settings
	☐ Some difficulties with impulse control ☐ May misinterpret emotions, moods, humour, social cues and inferences ☐ Minor levels of embarrassment, anxiety and/or worry (e.g. test results, grades, etc.) ☐ Minor frustration and/or anger due to unrealistic expectations (student, adult) and/or time required to complete school work ☐ Some feelings of failure and/or hopelessness due to exclusion from elective/choice activities or lack of any area of excellence ☐ Occasionally critical of themselves or vulnerable to perfectionism ☐ Sometimes lacks resilience to overcome challenges ☐ Tends to demonstrate immaturity (interacting with younger peers or engages in atypical play for age) ☐ Occasionally avoids risk-taking or refuse to try new tasks ☐ Sometimes demonstrates learned helplessness (dependence on others for completing tasks, etc.) ☐ Occasionally fails to respond to mild behavioural intervention (e.g. proximity, signalling, stating expectations, redirection, verbal correction, etc.) ☐ Occasionally uses inappropriate strategies as coping mechanisms ☐ Occasional difficulty relating to peers due to lack of social knowledge/skills	☐ Ongoing moderate problems with impulse control ☐ Occasionally misinterprets emotions, moods, humour, social cues and inferences ☐ Moderate levels of embarrassment, anxiety, and/or worry (e.g. test results, grades) ☐ Moderate frustration and/or anger due to unrealistic expectations (student, adult) and/or time required to complete school work ☐ Feelings of failure and/or hopelessness due to exclusion from elective/choice activities or lack of area of excellence ☐ Frequently critical of themselves or vulnerable to perfectionism ☐ Occasionally perseveres to complete tasks ☐ Frequently lacks resilience to overcome challenges ☐ Often demonstrates immaturity (interacting with younger peers or engages in atypical play for age) ☐ Frequently avoids risk-taking or refuses to try new tasks ☐ Often demonstrates learned helplessness (dependence on others for completing tasks, etc.) ☐ Fails to respond to mild behaviour intervention (e.g. redirection, verbal correction, proximity, etc.) ☐ Often uses inappropriate strategies as coping mechanisms ☐ Frequent difficulty relating to peers due to lack of social knowledge and/or skills	☐ Ongoing severe problems with impulse control ☐ Needs constant verbal/visual cueing attending to instructions and discussions ☐ Frequently misinterprets emotions, moods, humour, social cues and inferences ☐ Concrete visual supports always needed ☐ Needs supports & prompts to communicate appropriately ☐ Extreme embarrassment, anxiety and/or worry (e.g. test results, grades) ☐ Severe frustration and/or anger due to unrealistic expectations (student, adult) and/or time required to complete schoolwork ☐ Overwhelming feelings of failure and/or hopelessness due to exclusion from elective/choice activities or lack of area of excellence ☐ Constantly self critical/vulnerable to perfectionism ☐ Rarely perseveres to complete tasks ☐ Lacks resilience to overcome challenges ☐ Exclusively demonstrates immaturity (interacting with younger peers or engages in atypical play for age) ☐ Always avoids risk-taking or refuses to try new tasks ☐ Frequently demonstrates learned helplessness (dependence on others for completing tasks, etc.) ☐ High frequency of socially inappropriate behaviours (shouting, vocalizing, intruding) ☐ Fails to respond to behaviour intervention and demonstrates ongoing, continuous non-compliance/defiance ☐ Regularly uses inappropriate strategies to cope ☐ Needs timely & immediately available intervention ☐ Constant difficulty relating to peers due to lack of social skills/knowledge
	Examples of Supports		
	☐ Some file management ☐ Some structuring of class routines (transition cueing, re-direction, slower paced instruction, adjustment of timelines/expectations, quiet time, etc.) ☐ Small group instruction or individualized instruction (social skills, friendship groups) intermittently throughout the year ☐ Some support for self-advocacy ☐ Teach coping strategies ☐ Promote the development of positive attachments to adults/peers	☐ Some file management and monitoring ☐ Consistent and structured class routines (clear schedules, routines, rules and expectations) ☐ Small group or individualized instruction on an ongoing basis throughout the year (positive attribute and social skill development, managing anger/anxiety, etc.) ☐ Frequent support for self-advocacy ☐ Referral for specialized support (paediatrician, counselling, etc.) ☐ Promote the development of positive attachments to adults/peers	☐ Daily or frequent contact throughout the week ☐ Intensive individualized structures/routines ☐ Unique and highly structured learning and positive behavioural support approaches ☐ Direct individualized instruction and intensive practice in most/all social situations ☐ Ongoing intensive support for self-advocacy ☐ Ongoing inter-agency involvement and/or outside treatment ☐ Promote the development of positive attachments to adults/peers

APPENDIX 3 | QUICK REFERENCES

Appendix Three, *Quick References* summarizes information about each area of difficulty, potential supports and assessment strategies. Teachers are encouraged to use the information on these sheets as a starting-off point for determining effective strategies and for creating a personalized record of additional strategies.

Affective Domain	
Description of difficulty	Potential Supports
- frustration - feeling left out or inadequate - anger - self doubt - confusion/embarrassment about achievement - shame or anxiety - de-emphasizing areas of strength - avoidance techniques (such as leaving washroom breaks, pencil sharpening or erasing) - disruptive behaviours	- implement universal design in planning - build awareness about strengths - discourage comparisons with others and reinforce that everyone has strengths and weaknesses - relate learning tasks to student strengths - celebrate success - focus on passions, strengths and talents as a way to highlight different types of intelligence - orchestrate opportunities for the student to explain his/her learning strengths and needs to others - promote self-advocacy and facilitate opportunities for the student to practice using it - integrate use of learning strategies across the curriculum - help students learn from their mistakes and struggles - model viewing mistakes as a normal part of learning that provide opportunities to self correct and improve - model problem solving and discuss productive and unproductive strategies - model and provide practice in asking for clarification - dig deeper when negative statements are made
Assessment Strategies and Adaptations	
- begin with strengths when evaluating and debrief with students following assessments - encourage self evaluation as part of the process - make progress explicit by graphing or charting progress, setting goals, planning and tracking achievement	

Attention	
Description of difficulty	Potential Supports
- problems focusing - appears not to be listening - does not complete assignments or rushes through them - does not follow instructions - difficulty starting tasks - difficult organizing - seeks sensory information: fidgeting, tapping, touching, making noise - loses things - changes thoughts quickly - shouts out answers or speaks out of turn, - difficulty with turn taking in games and lining up - poor time management - difficulty blocking out competing noise	- check vision and hearing - allow a fidget toy (modeling clay, chewing gum or squeeze ball) - seat student away from distractions - use a timer for chunking times on task - provide authentic opportunity to move class (keep supplies at the back of the room) - provide a sizzle seat or exercise ball for seating - chunk longer assignments - mark assignments in stages - make assignment criteria explicit - identify areas of interest and use them in instruction - allow student to stand while working - teach self-monitoring skills
Assessment Strategies and Adaptations	
- make sure notes are complete before studying - provide time markers during exams to assist with time monitoring - teach test taking strategies - provide alternative environment for testing - develop tests with plenty of visual white space - provide extra time	

Comprehension	
Description of difficulty	Potential Supports
- insufficient processing speed - focus on decoding words - lack of phrasing when reading - ignores punctuation - monotone voice - skips lines or words - difficult responding accurately to text - unable to differentiate relevant words from details - difficulty predicting or making inferences - literal interpretation of slang or figurative language	- pre-teach vocabulary - use dictionary to confirm meanings - use pre-reading strategies to bring forward previous knowledge - make predictions before reading - "Think-Pair-Share" - generate questions before reading - explicitly teach summarizing main facts - reconstruct cut-up versions of text - encourage discussion about text - teach about text structures of various genres - use text formats to organize information (headings, subtitles) - build students vocabulary, knowledge of the world, understanding of story elements - regular check-ins with teacher or a buddy to ensure understanding of written direction - SQ3R (Scan, Question, Read, Recite, Review) - RAP (**Read** the paragraph, **Ask** questions about content, **Paraphrase** the content)
Assessment Strategies and Adaptations	
- use graphic organizer - allow oral recall - assess student's understanding through a "think-pair-share" and record the answers - confirm understanding of written directions	

Computation Skills	
Description of difficulty	Potential Supports
- remembering basic facts - performing basic operations - choosing correct operations - completing simple mental math - counts on fingers - lack mathematical automaticity	- use number lines, multiplication charts and fact sheets - allow use of a calculator - have the student "think aloud" while doing math - write out steps of a mathematical process - encourage estimation - highlight operation signs
Assessment Strategies and Adaptations	
- allow use of manipulatives, multiplication tables, fact sheets, formula sheets or calculator	

Reversals in Mathematics	
Description of difficulty	Potential Supports
- reverses numbers - reverses mathematical symbols	- combine the numeral or symbol with the word (+, plus) and (5, five) - use a highlighter to colour code and identify key words, symbols and operations - have student talk about the process before completing - reduce copying errors by reducing copying of work (provide work already copied with space for calculations) - encourage estimating before calculating - colour code operations or symbols - create a visual association with operations (number line or > points to higher number so means 'greater than')
Assessment Strategies and Adaptations	
- allow additional time - provide a calculator - monitor student during tests - provide prompts - reduce the number of questions - provide part marks for different aspects of mathematics: calculations, thinking, accurate copying. - reduce copying of work - teach test taking strategies: do all the same operations at one time, highlight operations in colour code	

Copying with Accuracy and Neatness in Math	
Description of difficulty	Potential Supports
- makes frequent errors when copying from the board, text book, overhead, or other source - misaligns numbers - leaves numbers out or repeats numbers - work is difficult to read	- use graph paper, or enlarged graph paper to help organize - provide written copy of the work allowing for room to work - allow extra time - encourage calculator use - reduce the number of questions to reduce fatigue - check in with student during class to monitor progress
Assessment Strategies and Adaptations	
- allow additional time - permit calculator use - regular monitoring during tests - provide prompts - reduce the number of questions - provide part marks for different aspects of mathematics: calculations, thinking, and accurate copying	

Decoding	
Description of difficulty	Potential Supports
- fluency or automaticity is limited - distinguishing between similar speech sounds - matching letters and sounds - developing sight word vocabulary - identifying a word in a previous sentence or paragraph - poor phonemic awareness - difficult sequencing sounds - adds or omits letters, sounds or syllables from or to words - segmenting words into syllables or phonemes - blending sounds or phonemes to form words	- select materials at the student's instructional or independent level - do not require student to read aloud - provide peer reader, reading buddy, or reading technology - provide audio books - provide high interest/low-vocabulary books - mark written work for content and don't mark spelling errors - provide instruction in phonemic awareness - teach word attack skills such as chunking, breaking words into beginning middle and end - teach using word families - use phonemic awareness activities
Assessment Strategies and Adaptations	
- provide text reader, reader or scribe for tests - do not discount marks for spelling errors - allow spell checkers	

Drafting	
Description of difficulty	Potential Supports
- generating and organizing ideas, choosing topics - ideas over simplified - unable to write complex ideas on paper - overuse of a few common words - simplistic sentences - lodes train of thought - short, underdeveloped written product - rambling ideas - lacks use of pre-writing, revising and editing strategies - gets tired easily when writing	- model and facilitate brainstorming, and other pre-writing strategies - provide a frame or structure for writing - make explicit the steps of the writing process - use graphic organizers to organize writing (story maps, webs, timelines, and flow charts) - write ideas on post-it notes to help organize - use a checklist to make sure the writing process is followed - encourage "read-aloud" - "Think aloud" while writing - use custom dictionaries either in print or digital format
Assessment Strategies and Adaptations	
- assign marks for using the steps in the writing process - use writing conferences to provide scaffolding and immediate feedback - provide rubrics and exemplars - provide self and peer assessment opportunities	

Editing	
Description of difficulty	Potential Supports
- identifying areas where improvement is needed - identifying spelling or grammatical mistakes	- provide regular, explicit, repeated lessons in grammar - provide rubrics for self and peer evaluation - use mnemonics to identify steps in editing - provide personal dictionaries or writing software - practice group edits
Assessment Strategies and Adaptations	
- assign marks for using the steps in the writing process - use writing conferences to provide scaffolding and immediate feedback - provide rubrics and exemplars - provide self and peer assessment opportunities	

<table>
<tr><th colspan="2">Encoding</th></tr>
<tr><td>Description of difficulty</td><td>Potential Supports</td></tr>
<tr><td>- limited spelling
- difficulty distinguishing between similar speech sounds
- developing sight word vocabulary
- matching letters and sounds
- segmenting words into syllables or phonemes
- difficult sequencing sounds
- blending sounds or phonemes to form words
- adds or omits letters, sounds or syllables</td><td>- provide manipulatives for practicing words (sand tray, magnetic letters)
- break words into pieces and have the student reconstruct them
- use box-words (see page 54)
- create a personal dictionary or list of commonly misspelled words
- provide regular practice and re-practice
- provide word prediction software
- brainstorm vocabulary and provide correct spelling in advance of writing
- reduce number of spelling words to learn
- teach word structures, meanings of words and morphemes
- teach reading and spelling together</td></tr>
<tr><td colspan="2">Assessment Strategies and Adaptations</td></tr>
<tr><td colspan="2">- do not discount marks for spelling
- allow spell check software
- encourage the student to use a personal dictionary to check spelling</td></tr>
</table>

Fluency	
Description of difficulty	Potential Supports
- monotone reading voice - choppy, disconnected reading - focus on identifying words - mispronounced words or words run together or omitted - lines are skipped or reread - difficulty decoding words - ignoring punctuation - very slow pace	- provide practice learning high frequency words - explicitly teach irregular spelling patterns - teach functions of words that cannot be visualized - teach using repeated reading - use choral reading - provide audio text - choose text at or below independent reading level - use buddies to read grade-level text - prepare student in advance for any oral reading - use a ruler or index card to follow along with text - model fluency - use text-to-voice software
Assessment Strategies and Adaptations	
- use text to voice software - read questions to the student	

Learning Strategies	
Description of difficulty	Potential Supports
Study Skills - student 'gets stuck' not knowing where to begin a task - work is incomplete - missing content information - inability to pick out key concepts - does poorly on tests - does not see the relationship between concepts or ideas Test Taking - does poorly on tests - overwhelmed by tests - does not complete in time - answers are incomplete or missed - spends too much time on one question - misses steps in multi-step questions Memory - unable to recall what has just been said, read or seen - forgets concepts from one day to the next - has difficulty retrieving materials previously learned - difficulty remembering rote information (like math facts)	Study skills - students create their own study guides - encourage study groups - highlighting key words in text - generate possible test questions from which to study - organize clusters of ideas on post-it notes. Test Taking - skim through the test - identify which questions to complete first - judge how much time to spend on a question depending on the mark value - use the process of elimination for multiple choice or true and false questions - use mini maps or outlines for essay questions - highlight key or signal words - explicitly identify the steps in multi- step questions Memory - teach visualization, cognitive mapping and mnemonic strategies - provide advance notice for tests to allow for longer study time - teach students to divide information into categories - exaggerate and use humour in presentations and studying tasks - use visual, auditory and kinaesthetic modes of presenting and exploring material - provide frequent, regular opportunities to

	practice - activate prior knowledge before instruction - use index cards to record key info - use visual cues - use checklists to identify steps - identify students learning styles and make use of related strategies
Assessment Strategies and Adaptations	
- assess frequently - assess deeper understanding instead of memory based learning - provide an outline or verbal prompts - provide a study guide - teach preparation of study guides - provide test questions in advance - allow open book tests or fact sheets	

Mathematical Reasoning	
Description of difficulty	Potential Supports
- classifying - spatial relationships - temporal relationships - estimating - equivalence - transferring number from one form to another, for example, 20 = twenty - whispering when performing math - reliance on manipulatives - verbally expressing mathematical ideas - generalizing mathematical concepts into other situations - over reliance on memorization - use of calculator or computer - math anxiety and avoidance	- use simple numbers when introducing new concepts - provide manipulatives and introduce iconic and symbolic representations as appropriate - provide discussion around math concepts - provide scaffolded instruction - use math games - connect life to math - incorporate math thinking into non-math subjects - use graph paper for math computations - reduce numbers of questions - use a talking calculator - allow peer assistance
Assessment Strategies and Adaptations	
- focus on deeper understanding rather than speed - give credit for math thinking even if the answer is wrong - allow a calculator for some parts of the test - allow rewrites to demonstrate further understanding - reduce the number of questions - allow extra time	

Memory	
Description of difficulty	Potential Supports
- sequencing events or behaviours - completing list of tasks or following instructions - remembering the beginning of a sentence or story - maintaining attention, problem solving - listening comprehension - reading comprehension - retaining test information - remembering what has just been seen, heard or said - remembering concepts from one day to the next - remembering rote facts	- ensure vision and hearing are intact - employ multisensory approaches - activate prior knowledge - record key information - use mnemonics, raps, songs and acronyms - visualization techniques - use checklists and routines - encourage and use frequent review - provide study guides - identify the student's learning style and make use of that strength to make up for challenges
Assessment Strategies and Adaptations	
- break assessment in chunks - provide alternate assessments that rely less on memory such as project work or journals - use verbal prompts - teach study skills - use and teach the use of study guides - have student predict exam questions - allow open book tests, or notes - provide questions in advance - encourage group study	

<table>
<tr><th colspan="2">Motor Control</th></tr>
<tr><td>Description of difficulty</td><td>Potential Supports</td></tr>
<tr><td>Fine

- writing, using scissors accurately
- remembering how to produce letters appropriately
- spacing, letter size and formation

Gross

- difficulty writing on the board
- falls out of chair
- bumps into things and others
- difficulty sitting upright
- speech difficulties
- social interactions</td><td>Fine

- provide a pencil grip
- use a clip board to hold pages steady
- use raised or bolded lined paper
- teach and encourage handwriting over printing
- provide partially completed notes
- photocopy notes from another student
- facilitate buddy support
- accept alternatives to written assignments
- develop keyboarding skills
- use voice to text software

Gross

- provide tasks in a progression of difficulty
- encourage social interaction
- allow transition from class to class when hallways are clear</td></tr>
<tr><td colspan="2">Assessment Strategies and Adaptations</td></tr>
<tr><td colspan="2">Fine

- do not discount marks for neatness
- allow word processor
- accept point-form answers
- allow extra time
- allow oral testing
- provide a scribe or computer software
Gross

- provide tasks in a progression of difficulty</td></tr>
</table>

Note-taking Strategies	
Description of difficulty	Potential Supports
- difficulty recording oral presentations	- provide photocopies or peer copies of notes - provide partial notes for student to complete - cue students to important points - provide regular practice in note taking - teach abbreviations for vocabulary - use word prediction software - complete lessons using Smartboard technology and print notes afterward - teach strategies such as: • summarizing at end of each page • notes on one side of page leaving room for additional study note on the other
Assessment Strategies and Adaptations	

Number Concepts and Place Value	
Description of difficulty	Potential Supports
- lack of number sense, comparing number - understanding the quantity of number - understanding number systems - understanding how numbers relate to one another - recognizing the quantity of items without counting - recognizing patterns - visualizing or identifying math concepts	- explicitly teach and review key words and vocabulary - create a math dictionary - relate manipulative math to mental math and visualization - use games to reinforce concepts - connect math to daily living
Assessment Strategies and Adaptations	
- allow use of manipulatives, multiplication tables, fact sheets, formula sheets or calculator - encourage students to draw their mathematical thinking	

Sequencing Numbers and Steps	
Description of difficulty	Potential Supports
- counting, time, schedules, ideas - correct direction when doing math calculations - numerous careless errors - following models	- provide cue cards to show sequence of steps - acronyms to help remember (BEDMAS, FOIL) - encourage talking about or journaling steps before doing the work - use graph paper to help organize - encourage student to estimate answers before calculating - provide a peer helper to check answers - allow use of a calculator
Assessment Strategies and Adaptations	
- provide a number line or other concrete supports - encourage student to write acronym at the top of the page and use it as a cue	

<table>
<tr><th colspan="2">Planning</th></tr>
<tr><td>Description of difficulty</td><td>Potential Supports</td></tr>
<tr><td>- defining a problem or setting goals
- choosing appropriate strategies for tasks
- developing and sticking to a plan
- monitoring and adjusting effort and strategies
- assessing product and personal performance
- advanced planning or organizing time
- unprepared for class
- disorganized notes, desk and materials</td><td>- provide structures such as KWL
- provide and model use of calendar or planner
- involve parents in planning homework
- provide rubrics or checklists for planning and providing clarity
- provide instruction orally and in writing
- break projects down in chunks
- provide criteria for assessing performance or products
- provide regular check-ins for projects
- model use of metacognitive strategies
- assist in goal setting
- provide graphic organizers
- use sentence starters
- provide key vocabulary before writing
- teach planning frameworks like; PROJECT (Preview the task, Rough out a plan, Organise tasks and resources, Jot down job assignments, Examine obstacles and develop strategies, Commit to goals, Target time lines</td></tr>
<tr><td colspan="2">Assessment Strategies and Adaptations</td></tr>
<tr><td colspan="2">- explicitly teach, monitor and evaluate time management
- use self and peer evaluation
- provide criteria ahead of time.</td></tr>
</table>

Problem Solving	
Description of difficulty	Potential Supports
- reading word problems - lack of structure for addressing word problems - cannot determine if an answer to a problem is logical - solves problems slowly - focuses on unimportant details in math problems	- highlight key words - draw pictures to represent problems - explain the problem in his or her own words - read the problem to the student or have a peer do it - teach problem solving steps - provide regular review of math vocabulary - create a dictionary of math vocabulary and processes - encourage the use of a variety of different problems solving strategies - relate math to life
Assessment Strategies and Adaptations	
- read the problem to the student - allow text to voice technology - have student restate the problem in his own words - reduce the number of problems - give marks for solving the same problem in a variety of ways - allow student to do math orally with manipulatives	

Reading in the Content Areas	
Description of difficulty	Potential Supports
- remembering content - following or comprehending materials - understanding vocabulary or a concept - coping with volume of text - difficulty identifying main ideas	- pre-teach vocabulary - simplify information - provide partial notes or outlines for materials - brainstorm questions to set a reason for reading - define a concept then identify examples and non-examples - teach use of context to derive meaning. - chunk materials - use graphic organizers - use headings as guides for content
Assessment Strategies and Adaptations	
- allow use of graphic organizers - provide written assessment instruction in chunks or orally - simplify instructions	

<table>
<tr><th colspan="2">Sharing/Publishing</th></tr>
<tr><td>Description of difficulty</td><td>Potential Supports</td></tr>
<tr><td>- embarrassment or emotional difficulty with the idea of sharing work publicly
- comparing work with that of others</td><td>- allow choice of representation of knowledge or final product (artistic, musical, oral, digital or tactile)
- arrange work groups to allow for contributions that consider individual strengths and weaknesses
- allow a scribe (person or digital)</td></tr>
<tr><td colspan="2">Assessment Strategies and Adaptations</td></tr>
<tr><td colspan="2">- do not penalize for neatness or whichever aspect the student struggles with
- provide rubrics
- give part marks for various aspects of the work</td></tr>
</table>

Transferring Skills	
Description of difficulty	Potential Supports
- student applies strategies in only one context - uses questioning strategies before reading novels, but not before reading non-fictional text - breaks complex questions down for mathematical problem solving but not in language arts tests - uses strategies when guided but not independently - spells words correctly when writing a test but not in the context of writing	- model use of strategies across the curriculum - set goals around use of strategies across the curriculum - encourage and reward independent use of learning strategies - model evaluation of appropriate strategies for various contexts - provide spelling practice in the context of writing - explicitly notice and encourage use of new vocabulary in writing - choose words that are meaningful and commonly used in spelling
Assessment Strategies and Adaptations	
- explicitly track the use of learning strategies across the curriculum	

Phonological Processing	
Description of difficulty	Potential Supports
- omits sounds in words - mispronounces sounds in words - difficulty rhyming - confuses words that sound similar - difficulty sounding out sounds when reading - difficulty moving beyond invented spelling - omits vowels when spelling	Provide direct instruction using: - rhyming words - breaking words into sounds - identify beginning, middle and end sounds - tapping technique to break down words - play phonemic games (see page 44) - provide charts of phonetic skills - use word walls to illustrate a phonetic component, and - provide practice using software
Assessment Strategies and Adaptations	
- allow text to voice technology, books via digital files - use Co-writer to aid with written work - permit opportunities for student to develop ideas without worrying about spelling	

Expressive Language Processing	
Description of difficulty	Potential Supports
- formulating or using spoken or written language - making connections between ideas and the words used to express them - interacting with peers - retrieving and organizing words to describe or explain - written composition, taking notes	- talk about your thinking as you go through a process - model correct grammar when responding - pair oral instructions with visual and tactile input - use learning strategies such as KWL, Think-Pair-Share - use graphic organizers in a variety of contexts - provide opportunities to engage with new vocabulary - encourage students to listen for new words - teach about higher level thinking and questioning - provide lecture notes or a framework for note-taking
Assessment Strategies and Adaptations	
- use Co-writer to aid with written work - provide voice-to-text technology - allow the student to represent learning using art or drama - encourage the use of graphic organizers as a framework for students to demonstrate knowledge	

Receptive Language Processing	
Description of difficulty	Potential Supports
- difficulty understanding oral, visual, and/or written information - difficulty organizing thoughts both on paper and orally - difficulty with verbal communication; both understanding and spoken language and responding - sometimes difficulty pronouncing words - struggles understanding figurative language - can often seem confused or forgetful - often needs further explanations	- model and expect effective listening behaviours - maintain student engagement through eye contact and physical proximity - present information in chunks - explicitly teach about using headings to organize and make sense of text - explicitly teach organizational skills - use graphic organizers in a variety of contexts - encourage discussion about text - provide opportunities for making predictions - ask the student to retell directions - present information repeatedly, both orally and visually - pre-teach vocabulary - access students' previous knowledge before reading new text
Assessment Strategies and Adaptations	
- encourage the use of graphic organizers as a framework for students to demonstrate knowledge - use text to speech software - allow student to represent learning using art or drama	

APPENDIX 4 | ASSESSMENT TOOLS

Assessment is the process of gathering data from multiple sources about an individual's learning strengths and needs. This data is used to determine a student's skill level, and to plan next steps in learning. The purpose of assessment is to enrich both teacher instruction and student learning.

Assessment practices continue to evolve and educators will benefit by keeping current with new developments. Districts might prefer some assessments over others. Educators who are interested in learning more about assessment practices may wish to consult with school or district special education staff.

Employing a variety of types of assessment (formal and informal, qualitative and quantitative, norm referenced and criterion referenced) provides a fulsome understanding of a learner's strengths and needs.

Formal assessment involves systematic methods of data collection such as a test or quiz.

Informal assessment involves observation, use of British Columbia Performance Standards, work samples, rating scales, anecdotal records, rubrics, checklists, inventories and/or portfolio assessments.

Qualitative assessment methods reveal how a student achieved the outcomes on the assessment.

Quantitative assessments provide actual scores that were achieved during the assessment.

Norm referenced tools compare an individual's performance to that of a large number of their peers.

Criterion referenced tools compare an individual's performance or skill level to a set of criteria.

As a general guide, most criterion referenced measures are intended to be utilized by all educators. Norm referenced assessments are typically reserved for those who have training in the interpretation of norm referenced measures.

Assessment tools are classified in terms of three levels; A, B and C. These levels are related to the training requirements for administering the test.

Level A assessments require no specific assessment protocol training beyond the basic assessment training of a classroom teacher. The assessment information is used to develop a picture of a student's strengths and needs and to guide instructional practice and planning.

Level B assessments require specific assessment training in administration, scoring and interpretation procedures and are used when more specialized information and support is needed in order to support children in their learning.

Level C assessments are those which require advanced protocol training and may only be administered by a certified psychologist. Level C testing may be used to help inform a diagnostic and or functional assessment and for the purpose of informing intervention/accommodations strategies.

The following chart lists Level A and B assessment instruments commonly used in British Columbia school districts. This is not an exhaustive list, nor does the Ministry of Education endorse the use of any particular assessment tool.

Pre-Academic Skills	
Level A	**Level B**
Kindergarten Screening (UBC-Siegel) Kindergarten Readiness Indicators Checklist Get Ready to Read! Screening Tool Brigance Diagnostic Inventory Reading 44 (North Vancouver) Readiness checklists Early Literacy Instrument Early Numeracy Instrument	Boehm Test of Basic Concepts - Revised Dynamic Indicators of Basic Early Literacy Skills - DIBELS Peabody Picture Vocabulary Test – PPVT III Expressive Vocabulary Test – EVT Test of Phonological Awareness - TOPA Phonological Awareness Test

Assessment of Reading Skills	
Level A	**Level B**
BC Performance Standards K/1 UBC Seigel Screening Brigance Diagnostic Inventory Reading 44 Developmental Reading Assessment - DRA PM Benchmarks Running Records Alberta Diagnostic Reading Program John's Basic Reading Inventory - BRI Informal Reading Inventory (Silvaroli) Gallistel-Ellis Decoding/Encoding Fry Word Lists Dolch Word Lists Reading Behaviour Checklists Assessment for Literacy in Education - ALIE (Savage Bird Assessment)	Dynamic Indicators of Basic Early Literacy Skills - DIBELS Curriculum-Based Measurement (CBM): Reading Fluency – Words Read Correctly Gray Oral Reading Test (Grade 6-12) – GORT-4 Stanford Diagnostic Reading Test – SDRT Gates-MacGinitie Reading Tests – GMRT-4 Group Reading Assessment and Diagnostic Evaluation - GRADE Canadian Achievement Test (CAT): Vocabulary, Comprehension subtests Kaufman Test of Educational Achievement Wechsler Individual Achievement Test - Second Edition Reading Recovery Observation Survey (Level A assessment tool that require specific administration training)

Assessment of Writing Skills	
Level A	**Level B**
BC Performance Standards Curriculum-Based Measurement (CBM): Written Expression – Correct Word Sequence Brigance Diagnostic Inventory Spelling Tests: Graded/Diagnostic Kottmeyer Gallistel-Ellis Test of Written Spelling Independent writing samples with informal Diagnostic Rating Scales/Observations Writing Snapshots	Curriculum-Based Measurement (CBM): Written Expression – Total Words Written, Words Spelled Correctly Test of Written Language – (TOWL – 4) Canadian Achievement Test (CAT) – Written Language Subtests Written Language Observation Scale (WLOS) Kaufman Test of Educational Achievement (K-TEA) Wechsler Individual Achievement Test - Second Edition (WIAT) Reading Recovery Observation Survey (Level A Assessment Tool that needs specific administration training)

Assessment of Math Skills	
Level A	**Level B**
BC Performance Standards Brigance Diagnostic Inventory Alberta Diagnostic Mathematics Program Enright Math Assessment McKim Middle School Math Light & Rapid Math Assessment Numeracy Nets (Pearson) Test of Problem Solving (TOPS) Math Makes Sense Assessment Package Vancouver Island Net Diagnostic Math Assessment (DMA) Assessment for Numeracy in Education (ANIE)	Curriculum-Based Measurement (CBM): – Correct Digits KeyMath Diagnostic Arithmetic Test Group Mathematics Assessment and Diagnostic Evaluation (G-MADE) Canadian Achievement Test (CAT) – Math subtests Test of Mathematical Abilities (TOMA) Wechsler Individual Achievement Test - Second Edition Kaufman Test of Educational Achievement

Assessment of Cognitive Processes	
Level A	**Level B**
Language Processing: Language Sample Summary Checklist Brigance Diagnostic Inventory (Subtests for Listening and Comprehension, Auditory Discrimination, Sentence Memory, Following Directions) **Phonological Processing:** Dynamic Indicators of Basic Early Literacy Skills – DIBELS Brigance Diagnostic Inventory (Choose from subtests B-3R, B-4R, Word Analysis) **Visual-Spatial Processing:** Visual-Spatial Processing Skills checklist Brigance Diagnostic Inventory (Visual-motor, Visual-discrimination, Reading maps/graphs) **Memory:** Brigance Diagnostic Inventory (Subtests for Sentence Memory and Following Directions) **Attention:** On-off task with average peer comparison Teacher Rating Scale **Processing Speed:** Timed measures of task completion with average peer comparison (speed/accuracy)	Peabody Picture Vocabulary Test – PPVT III Expressive Vocabulary Test – EVT Language Processing Test – LPT-3 Boehm Test of Basic Concepts – Revised Test of Auditory Processing Skills – TAPS Peabody Picture Vocabulary Test – PPVT III Expressive Vocabulary Test – EVT Test of Phonological Awareness – TOPA Phonological Awareness Test Beery-Buktenica Visual-Motor Integration Test Test of Auditory of Processing Skills – TAPS

Assessment Resources

Print

Alper, S., Lea Ryndak, D., Schloss, C.N. *Alternate Assessment of Students with Disabilities in Inclusive Settings*. Allyn &Bacon. Boston, MA (2000)

Brownlie, F. *Grand Conversations, Thoughtful Responses - A Unique Approach to Literature Circles*. Portage & Main Press. Winnipeg, MB (2005)

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Hume, K. *50 Tools and Techniques for Classroom Assessment Grades 6-10*. Pearson Canada. Toronto, ON (2009)

Miller, W. *Alternate Assessment Techniques for Reading and Writing*. Jossey-Bass. New York, NY (1995)

Politano, C., Paquin,J., Cameron,C., Gregory, K., *Voices Of Experience: Practical Ideas To Spark Up The Year, Grades K-3*. Portage & Main Press. Winnipeg MB (2004)

Silvaroli, N. J., Wheelock, W., *Classroom Reading Inventory*. McGraw-Hill. New York, NY (2000).

Web

Curriculum-Based Assessments and Curriculum-Based Measurement	http://www.interventioncentral.org
Developmental Reading Assessment (DRA)	http://www.pearsoned.ca/school/LanguageArts/dra.html
Dynamic Indicators of Basic Early Literacy Skills	http://oregonreadingfirst.uoregon.edu/assess_information.html

Assessment Resources (continued)

Web (continued)

Learning Disabilities Checklist - National Center for Learning Disabilities	http://www.ncld.org/images/stories/Publications/Forms-Checklists-Flyers-Handouts/ldchecklistbw.pdf
Numeracy Nets (2008) Pearson Canada. Don Mills, Ont.	http://www.pearsonschoolcanada.ca
Resource for the Identification and Teaching of Students with Specific Learning Disability: High School Program	http://www.gnb.ca/0000/publications/ss/LDHandbook611.pdf
Savage Bird Assessments (built from BC Performance Standards, free downloads); - Assessment for Numeracy in Education (ANIE) - Assessment for Literacy in Education (ALIE) - Social Responsibility Assessment (SaRA)	http://members.shaw.ca/savagebird
Special Education/Learning Assistance Designations – Assessment Tools. This page lists and describes a number of commonly used assessment tools.	http://bctf.ca/issues/resources.aspx?id=11546
Transitioning to Kindergarten: A Toolkit for Early Childhood Educators. Includes Kindergarten Readiness Indicators Checklist and Get Ready to Read! Screening Tool	http://www.recognitionandresponse.org/content/view/23/108/#grtr
Unlocking Potential: Key Components of Programming for Students with Learning Disabilities	http://education.alberta.ca/media/511999/unlocking.pdf
Vancouver Island Net Diagnostic Math	http://web.sd71.bc.ca/islandnet/index.php?

APPENDIX 5 | RESOURCES

Print

Allen Jurenka, N. T*eaching phonemic awareness through children's literature and experiences*. Libraries Unlimited. Westport, CT (2005).

Axelrod, A. *Pigs will be pigs: Fun with math and money*. Simon and Schuster Books for Young Readers. New York, NY (1994).

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Bender, W. *Differentiating instruction for students with learning disabilities*. Corwin Press. Thousand Oaks, CA (2002).

Bird, R. *The dyscalculia toolkit*. Sage Publications. Thousand Oaks, CA (2007).

Bodrova, E. & Leong, D. *Tools of the mind: The Vygotskian approach to early childhood education.* Allyn & Bacon. Boston, MA (2007).

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Erlich, V. *Gifted children: A guide for parents and teachers*. Prentice Hall. Engelwood Cliffs, NJ (1982).

Fisher, D. & Frey, N. *Enhancing RTI: How to ensure success with effective classroom instruction and intervention*. Association for Supervision and Curriculum Development. Alexandria, VA (2010).

Graham, S. and Hebert, M.A. *Writing to read: Evidence of how writing can improve reading.* Carnegie Foundation. New York, NY (2010).

Haylock, D. & D'Eon, M. *Helping low achievers succeed at mathematics.* Trifolium Books Inc Toronto, ON (1999).

Print (continued)

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http://centeroninstruction.org/files/Mathematics%20Instruction%20LD%20Guide%20for%20Teachers.pdf

Jenkins, S. *Actual size*. Sandpiper.London, UK (2010).

Johns, J.L. & Lenski, S.D. *Improving writing: Resources strategies and assessments*. Kendall Hunt Publishing Company.Dubuque, IA (2000).

Johns, J.L. & Wham, M. *Reading and learning strategies for middle and high school students*. Kendall Hunt Publishing Company.Dubuque, IA (2000).

Lavoie, R. *The Motivation breakthrough: 6 secrets to turning on the tuned-out child*. Simon and Schuster.New York, NY (2007).

Leinwand, S. *Accessible mathematics: 10 instructional shifts that raise student achievement*. Heinemann.Portsmouth, NH (2010).

Levine, M. *Educational care: A system for understanding and helping children with learning problems at home and in school*. Educator Publishing Services, Inc. Cambridge, MA (1994).

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Pierangelo, R. & Giuliani, G. *The educator's diagnostic manual of disabilities and disorders*. Jossey-Bass. San Francisco, CA (2007).

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Rockwell, S. *Back off, cool down, try again: Teaching students how to control aggressive behaviour*. Council for Exceptional Children. Reston, VA (1995).

Print (continued)

Rose, D., Meyer, A. & Hitchcock, C. *The universally designed classroom – Accessible curriculum and digital technologies*. Harvard Education Press. Cambridge, MA (2005).

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Small, M. *Good questions: Great ways to differentiate mathematics instruction*. College Press. New York, NY (2009).

Sousa, D. *How the brain learns mathematics*. Corwin Press. Thousand Oaks, CA (2002).

Stock Kranowitz, C. *The out-of-sync child – Recognizing and coping with sensory processing disorder*. Skylight Press. New York, NY (1998).

Tang, G. *The grapes of math*. Scholastic Press. New York, NY (2001).

Tomkins, G. *Teaching writing: Balancing process and product (3rd ed.)*. Merrill/Prentice Hall. Upper Saddle River, NJ (2000).

Tomlinson, C. *The differentiated classroom*. Association of Supervision and Curriculum Development. Alexandria, VA (1999).

Wood, J. *Reaching the hard to teach*. Virginia Commonwealth University Press.Richmond, VA (1996).

Government of BC Web Resources

Adaptations

A Guide to Adaptations and Modifications provides clarification about providing adaptations and modifications to students with special needs.

www.bced.gov.bc.ca/specialed/docs/adaptations_and_modifications_guide.pdf

For examples of non-technology based adaptations, see *Non-Technology/Low Technology Solutions to Support Networks of Learning.*

www.setbc.org/Download/LearningCentre/Access/Networks_of_Learning_2010.pdf

Assessment

See Appendix 4

Adjudication

This site is intended to provide information about examinations and the Ministry of education policy regarding adjudication, including important updates in regard to the process of adjudication as they arise.

www.bced.gov.bc.ca/exams/adjudication

Attention

Students with Attention-Deficit/Hyperactivity Disorder is intended to assist teachers in planning and providing supports for students displaying the characteristics associated with AD/HD.

www.bced.gov.bc.ca/specialed/adhd

Behaviour

Teaching Students with Learning and Behaviour Differences is designed to support teachers as they strive to help students with learning and behavioural difficulties succeed.

www.bced.gov.bc.ca/specialed/landbdif

Government of BC Web Resources (Continued)

Gifted

Gifted Education: A Resource Guide for Teachers will assist in developing and maintaining programs for exceptionally talented and gifted students.

www.bced.gov.bc.ca/specialed/gifted/programming.htm

Graduation

Handbook of Procedures for the Graduation Program 2010-2011 outlines procedures for sharing student data between schools and with the Ministry of Education, and answers questions pertaining to provincial examinations.

http://www.bced.gov.bc.ca/exams/handbook/1011/handbook_of_procedures.pdf

IEP

IEP Planning for Students with Special Needs (2009) provides information and strategies that align with professional practice and current legislation. The guide is designed for teachers involved in developing and implementing Individual Education Plans (IEPs).

www.bced.gov.bc.ca/specialed/iepssn.htm

Learning Disabilities

Students with Learning Disabilities Planning Tool provides a framework for collecting functional behaviour information to facilitate meaningful discussion and planning support for students based on their needs.

www.bced.gov.bc.ca/specialed/docs/ld_instructional_support_tool.pdf

Mental Health

FRIENDS, FunFriends and *Friends for Youth* are anxiety prevention programs that address how children and teens cope with feelings of fear, worry and depression by building resilience and self-esteem and that teach cognitive and emotional skills in a simple, well-structured format.

www.mcf.gov.bc.ca/mental_health/friends.htm

Government of BC Web Resources (continued)

Mental Health (continued)

Ministry of Children Family Development

www.mcf.gov.bc.ca/mental_health

Numeracy

Assessing Early Numeracy The Early Numeracy Project: For Grades K-1 is a selection of assessment items which teachers can use to determine numeracy strengths and weaknesses. It is designed as an assessment for learning tool.

http://www.bced.gov.bc.ca/early_learning/pdfs/assessing_numeracy.pdf

Supporting Early Numeracy is a companion component of helpful suggestions for ways to address early difficulties in numeracy. This component is composed of activities to support small group intervention.

http://www.bced.gov.bc.ca/early_learning/pdfs/supporting_numeracy.pdf

Whole Group Follow-up provides helpful activities and suggestions for whole class support.

http://www.bced.gov.bc.ca/early_learning/pdfs/whole_group.pdf

Math for Families - Helping Your Child with Math at Home is a resource guide for parents to use at home to support and develop their children's math skills.

http://www.bced.gov.bc.ca/early_learning/pdfs/math_for_families.pdf

Reporting

Reporting Student Progress: Policy and Practice provides teachers and administrators with policy guidelines and suggested practices for reporting student progress in primary, middle and graduation years.

www.bced.gov.bc.ca/classroom_assessment/09_report_student_prog.pdf

Government of BC Web Resources (continued)

School Act

www.bced.gov.bc.ca/legislation/schoollaw/revisedstatutescontents.pdf

Special Education

Special Education Services: A Manual of Policies, Procedures and Guidelines provides a single point of reference for legislation, Ministry policy and guidelines to help school boards provide programs and services for students with special needs. The manual also contains procedural information to assist in accessing programs and services provided at the provincial level. It is intended for principals, school-based teams and special educational professionals, but it might also prove of interest to teachers and other professionals within the education, social service or health care communities, as well as to parents and the public at large.

www.bced.gov.bc.ca/specialed/special_ed_policy_manual.pdf#page=14

Transition

Career/Life Transitions for Students with Diverse Needs: A Resource Guide for Schools (2001) assists educators in working with students with diverse needs including those with special needs and students who are at risk of dropping out of school.

www.bced.gov.bc.ca/specialed/docs/moe_clt_resource_rb0144.pdf

Transition planning for students with special needs.

www.bced.gov.bc.ca/specialed/sped_res_docs.htm

Transition Planning for Youth with Special Needs: A Community Support Guide (2005) provides community partners, such as school personnel, social workers and community members, with useful information and practical tips for supporting successful transition planning for youth with special needs.

www.mcf.gov.bc.ca/spec_needs/pdf/support_guide.pdf

Government of BC Web Resources (continued)

Transition (continued)

Your Future Now was designed as a companion to *Transition Planning for Youth with Special Needs: A Community Support Guide* (MCFD, 2005).

www.mcf.gov.bc.ca/spec_needs/pdf/your_future_now.pdf

Writing

BC Performance Standards for Writing at:

www.bced.gov.bc.ca/perf_stands/writing.htm

Other Web Resources

Accessible Resources and Materials

The Accessible Resource Centre – British Columbia is a Ministry of Education-funded response to the increasing demand for alternate-format materials in BC classrooms. ARC-BC provides BC students with perceptual disabilities and the educators supporting them with high- quality, digital alternate format materials based on the BC K-12 curriculum.

www.arc-bc.org/help/general_info.aspx

Adapted/Modified Materials for Writing Output Series. Davies and Johnson Associates Ltd. White Rock, B.C

www.daviesandjohnson.com

Assistive Technology/Software Support

AlphaSmart Inc.

www.neo-direct.com/intro.aspx

Other Web Resources (continued)

Assistive Technology/Software Support (continued)

CoWriter is a software program with word-prediction and read-aloud features. It also has a feature to carry out prediction based on two criteria, conventional spelling and the phonetic aspects of words. If a student types in "wunnse" for the word once, the program will predict one, once and won. This is very useful for students with severe spelling difficulties.

www.donjohnston.com/products/cowriter/index.html

Dragon Naturally Speaking is speech-to-text software that is best used for students who have at least a Grade 5 level of word recognition and spelling abilities. It allows students to talk into a microphone and the spoken words are then translated into text; the students' words appear on the screen. Students need to be able to spot errors, to cue the software to "scratch that" and try again. There is no need for typing. Product demonstrations are available on line.

www.nuance.com/dragon/index.htm

Kurzweil 3000

www.kurzweiledu.com

SMARTBoard

www.smarttech.com

Texas Assistive Technology Network

www.texasat.net/default.aspx?name=trainmod.reading

The Provincial Software Acquisition Plan was created to provide British Columbia school districts with software at preferential prices to help students with special needs improve their literacy, numeracy, and communication skills

www.setbc.org/psap/default.asp

Other Web Resources (continued)

Digital Learning Tools

Learning Tools for All showcases the many high-quality digital learning tools that are already in our schools or readily available, often free, to learners everywhere. The purpose of this wiki is to increase awareness of some of these powerful options.

http://learningtools4all.pbworks.com

Graphic Organizers

Graphic and advanced organizers

http://en.wikipedia.org/wiki/Graphic_organizer

Health

Caring for Kids Canadian Paediatric Society

www.caringforkids.cps.ca

Family Resource Library at BC Children's Hospital

www.bcchildrens.ca/frl

Learning Strategies and Resources

LD Online

www.ldonline.org/ldresources

Learning Strategies Resource Guide

http://www.ets.org/Media/About_ETS/pdf/lsrg.pdf

Developing Minds Series

www.allkindsofminds.org

Other Web Resources (continued)

Literacy

All about Adolescent Literacy

www.adlit.org/strategy_library

Firm Foundations – Early Literacy Teaching and Learning

www.nvsd44.bc.ca/FirmFoundations/main.html

Foundations for Literacy: An evidence based toolkit for early learning practitioners. The Canadian Language and Literacy Research Network, (2010)

http://eyeonkids.ca/docs/files/foundations_for_numeracy.pdf

Manipulatives

Virtual Manipulatives – Base Ten Blocks

http://education.alberta.ca/media/513276/unlock_1.pdf

Mathematics

FASTT Math published by Tom Snyder Production, Scholastic

www.tomsnyder.com/fasttmath/index.html

First Steps in Math: For Grades K-10 provides a sequence of concept-development and related skill acquisition, diagnostic tasks, and related direct teaching strategies:

www.pearsonprofessionallearning.ca/firststepsmath/index.html

JUMP Math This program provides print materials and teacher training, and places emphasis on mathematical thinking and development of a solid understanding of concepts.

www.jumpmath.org

Other Web Resources (continued)

Mathematics (continued)

Math 44 Teaching for Proficiency (2nd Edition) School District No. 44 (North Vancouver)

http://www.pss.gov.bc.ca/pubs/publications-index.html

Mathematics glossary of terms

www.edu.gov.mb.ca/k12/cur/math/glossary_k-8/document.pdf

Math Solutions

www.mathsolutions.com

Mighty Math series published by Edmark

www.synapseadaptive.com/edmark/edmark_software_products.htm

Planting a Literacy Garden: Comprehension Strategies

http://olc.spsd.sk.ca/de/resources/litgarden/index.html

The Power of Ten is a set of visual tools (including playing cards and place value cards) that help students make sense of number.

http://poweroften.ca

Mental Health

Anxiety BC

www.anxietybc.com

BC Children's Hospital Mood Disorders Clinic

www.bcchildrens.ca/Services/ChildYouthMentalHlth/ProgramsAndServices/MoodAnxietyDisorderClinic/default.htm

Other Web Resources (continued)

Mental Health (continued)

Child & Youth Mental Health Toolkits

www.shared-care.ca/toolkits

Numeracy

Foundations for Numeracy: An evidence based toolkit for early learning practitioners. The Canadian Language and Literacy Research Network. (2010)

http://foundationsfornumeracy.ca/pdf/EY_NumeracyKit09_ENG.pdf

Professional Learning

The BC CASE Learning Series developed in partnership with the Ministry of Education offers Online Learning Modules and Cornerstone Workshops to support the professional learning of educators new to special education. The modules provide an introductory overview of core special education topics and the skills required to support students with special learning needs, while Cornerstone Workshops provide more in-depth training.

www.bc-case.org/learning.shtml

BCTF Teaching to Diversity professional development website.

www.bctf.ca/IssuesInEducation.aspx?id=10596

Professional Support

The Learning Assistance Teachers Association (LATA)

http://bctf.ca/lata/lata/intro/lata_intro.htm

LATA Top 30 Resources list for learning assistance teachers

http://bctf.ca/lata/resources/web/top30.htm

LaVoie, R. *How difficult can this be*. Stylus Publishing. (1989).

www.ricklavoie.com/videos.html

Other Web Resources (continued)

Reading

Essential Skills Reading Software™	www.essentialskills.net
Fast ForWord (Scientific Learning Corp.)	www.scilearn.com
Great Leaps Reading Program	www.greatleaps.com/index.php
Earobics – Cognitive Concepts Inc.	www.earobics.com
Readinglady.com	www.readinglady.com
Reading to Learn	www.readingtolearn.com.au
Reading Rockets	www.readingrockets.org
Schacter, J., *Reading programs that work: A review of programs for pre-kindergarten to 4th Grade*. Milken Family Foundation.Santa Monica, CA. Retrieved December 2010 from:	www.mff.org/pubs/ME279.pdf
Education Northwest	http://educationnorthwest.org/event/951
Lexia Learning Systems	http://www.lexialearning.com
WiggleWorks	http://teacher.scholastic.com/products/wiggleworks/index.htm
Wilson Reading Program	www.wilsonlanguage.com
WordQ	www.wordq.com
Soar to Success	www.gagelearning.com/elementary/langArts/reading/soarsuccess.html

Other Web Resources (continued)

Reading (continued)

Thinking Reader provides unabridged texts with on-demand dictionary definitions, prompts and examples of how to summarize and question.

www.tomsnyder.com/products/product.asp?sku=THITHI#

Teacher Resources

Supporting Meaningful Consultation with Parents

www.bc-case.org/downloads/WVSD_brochure.pdf

Teachers Make the difference: Teaching Students with Learning Disabilities at the Middle and Secondary Levels

www.education.gov.sk.ca/adx/aspx/adxGetMedia.aspx?DocID=190,211,107,81,1,Documents&MediaID=6560&Filename=Teachers+Make+the+Difference++Teaching+Students+with+Learning+Disabilities+at+Middle+and+Secondary+Levels.pdf

Teaching Students with Reading Difficulties and Disabilities

www.sasked.gov.sk.ca/branches/curr/special_ed/docs/teachreaddiffanddis.pdf

The Kids in My Class Series: School District No. 37 (Delta) website

Unlocking Potential: Key Components of Programming for Students with Learning Disabilities

http://olc.spsd.sk.ca/de/math1-3/baseten-1.html

Visual Learning

Inspiration

www.inspiration.com and www.inspiration.com/vlearning/index.cfm?fuseaction=idea_maps

Kidspiration

www.inspiration.com/productinfo/kidspiration/index.cfm

Other Web Resources (continued)

Writing

Six-Trait Writing Assessment Rubric

http://educationnorthwest.org/webfm_send/773

Universal Design for Learning

UDL lessons, examples of downloadable lessons and presentations:

www.setbc.org/setinfo/BCUDL and www.setbc.org/default.html#SET_event

US Department of Education Institute of Education Sciences What Works Clearinghouse

http://ies.ed.gov/ncee/wwc/

Universal Design for Learning

www.setbc.org/setbc/curriculum/udl_main.html

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The power to hope, to learn, and to succeed. (2005). National Center for Learning Disabilities. Retrieved from www.ncld.org

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Singer, B. & Bashir, A. *What are executive functions and self-regulation and what do they have to do with language learning disorders? Language, Speech and Hearing Services in Schools* Vol. 30, pp.265–273 (1999)

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Westman, J.C. *Handbook of learning disabilities: A multi-system approach.* Allyn and Bacon. Boston, MA (1990).

Ysseldyke, J. & Christenson, S. *Functional assessment of academic behaviour: Creating successful learning environments.* Sopris West Educational Services. Longmont, CO (2002).