

Learning Disabilities

A Guide for
Educators who
Work with Adult
Learners



Produced by the Nunavut Literacy Council

Thank you to

Pat Hatt

for her knowledge and for allowing us to use her materials

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Introduction

The field of learning disabilities creates a challenge for literacy facilitators and adult educators. We suspect that many of the learners that we work with struggle with learning disabilities. We know that they didn't succeed in school and that's why they are in adult literacy and adult basic education programs. We know that teaching and learning methods must be different for these learners. However, in Nunavut we have few resources and professionals to help learners and facilitators tackle this complicated issue.

The Nunavut Literacy Council partnered with respected learning disabilities and literacy consultant from Ontario, Pat Hatt. Pat knows first hand that the field of learning disabilities is complex; there are over 70 different types of learning disabilities! However, Pat has simplified the puzzling and complicated information on learning disabilities for adult literacy learners and educators. She has developed a tool to guide those of us who are not experts on learning disabilities. Her tool streamlines learning disability information into three broad disability clusters, with characteristics and learning strategies for each.

Pat Hatt has worked in the field of education for over 30 years, the last fifteen in adult literacy. She has her Ontario Teaching Certificate and a Masters degree in Learning and Language Problems. She volunteered for the Learning Disabilities Association for over 20 years at the local, provincial and federal levels.

But the reason Pat comes across as a credible expert on LD is her personal experience. Pat, herself, has struggled with severe learning disabilities throughout her life. Since so little was known about LD when she was young, she persevered through elementary school, high school and an undergraduate university degree with very little support from educators in the institutions she attended. Her determination and intellectual curiosity lead her to seek out coping skills and learning strategies to help her succeed. Later she went on to study learning disabilities at the masters' level. Pat knows first hand the great challenges people with learning disabilities face in formal educational systems. Over the past 30 years she has supported many learning disabled adults and children, including some of her own children, in reaching their literacy and academic goals.



Pat has very generously agreed to share her knowledge and work with literacy facilitators and adult educators in Nunavut and the Nunavut Literacy Council through this resource.

In **Learning Disabilities: A Guide for Educators who Work with Adult Learners**, we offer the following information:

- ◆ The Learning Disability Association of Canada’s official definition of learning disabilities;
- ◆ excerpts from Pat Hatt’s learning disabilities publications. Pat’s work in this section describes learning disabilities for people who are not experts. Information on the difference between learning disabilities and developmental disabilities, definitions of learning disability terms and descriptions of Pat’s three broad learning disability (LD) clusters;
- ◆ case histories of Nunavut learners with learning disabilities including literacy demonstrations and accommodations;
- ◆ fact sheets on learning disabilities, fetal alcohol spectrum disorder and attention deficit disorder; and
- ◆ a resource list that includes LD information available in books and on websites.



Official Definition of Learning Disabilities

Adopted by the Learning Disabilities Association of Canada on January 30, 2000.

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

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

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

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

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

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

Learning disabilities are due to genetic and/or neurobiological factors or injury that alters brain functioning in a manner which affects one or more processes related to learning. These disorders are not due primarily to hearing and/or vision problems, socio-economic factors, cultural or linguistic

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differences, lack of motivation or ineffective teaching, although these factors may further complicate the challenges faced by individuals with learning disabilities. Learning disabilities may co-exist with various conditions including attentional, behavioural and emotional disorders, sensory impairments or other medical conditions.

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

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



Myths and Truths about Learning Disabilities

The myth:	The truth:
◆ People with learning disabilities are not smart.	◆ There is no link between intelligence and learning disabilities. People with learning disabilities can have average to above average intelligence and many are gifted.
◆ Learning disabilities are caused by a lack of formal education.	◆ All learning disabilities are neurological or brain-based disorders and have nothing to do with a person's amount of formal education.
◆ Learning disabilities are caused by emotional problems.	◆ Learning disabilities are not caused by or linked to emotional problems.
◆ People with learning disabilities are lazy and lack motivation.	◆ A person with a learning disability has to work harder and be more motivated to cope with the effects of their disability.
◆ People with learning disabilities can not hear properly.	◆ A person with a learning disability could, like anyone else, have problems with hearing but the conditions are not related.
◆ People with learning disabilities have problems with their eyesight.	◆ A person with a learning disability could, like anyone else, have poor eyesight but there is no link between learning disabilities and vision.
◆ Learning disabilities are caused by something the parents did.	◆ The causes of learning disabilities are still unknown, but they are not caused by a parent's behaviour.
◆ Learning disabilities are curable.	◆ A learning disability is a life-long condition. Learning disabilities do not go away and they cannot be cured, but people do learn to effectively cope with them.



<ul style="list-style-type: none"> ◆ People with learning disabilities are all the same. 	<ul style="list-style-type: none"> ◆ Learning disabilities affect people in different ways. There are many different kinds of learning disabilities and a person could have more than one. The affect of a learning disability can range from mild to severe.
<ul style="list-style-type: none"> ◆ People with learning disabilities don't look like other people. 	<ul style="list-style-type: none"> ◆ People with learning disabilities look like other people. Learning disabilities are often called "invisible" because they are not easily noticeable.



What is the Difference Between Learning Disabilities and Developmental Disabilities?

By Pat Hatt

A Working Description of Learning Disabilities

created by adults with learning disabilities

Learning Disabilities can affect the way in which a person takes in, remembers, understands, and expresses information. People with learning disabilities are intelligent and have the ability to learn in spite of difficulties in processing information. Living with learning disabilities can have an ongoing impact on:

- ◆ friendship
- ◆ school
- ◆ work
- ◆ self-Esteem
- ◆ daily Life

People with learning disabilities can succeed when solid coping skills and strategies are developed.

A Description of Developmental Disabilities

Most individuals with developmental disabilities have limited intellectual potential that results in a significantly reduced ability to transfer information, resulting in problems in problem solving. However, they also have strengths and interests that can be used to achieve goals that are important to them.

Profile of Individuals with Learning Disabilities

- ◆ “normal” life
- ◆ “normal” jobs
- ◆ “normal” school placements
- ◆ unreasonable / unexplainable lack of literacy skills
- ◆ left school 14 +



Profile of Individuals with Developmental Disabilities

- ◆ grew up and schooled in a “protected” environment
- ◆ works in supported employment or not at all
- ◆ lives in a “protected” environment
- ◆ lack of literacy and school success due to intellectual disability
- ◆ left school at 21 +

Intake Assessment (at the beginning of a literacy program)	
Developmental Disabilities	Learning Disabilities
<ul style="list-style-type: none"> ◆ Entry level or below ◆ Fairly consistent levels in all areas ◆ May present as having language or behavior issues ◆ May live in a protected living environment 	<ul style="list-style-type: none"> ◆ Often indistinguishable from other learners ◆ Abilities “all over the map” ◆ Wide discrepancy in abilities ◆ May have had behavior problems in school

Teaching Techniques	
Developmental Disabilities	Learning Disabilities
<ul style="list-style-type: none"> ◆ Supportive ◆ Concrete ◆ Relative ◆ Focused on goal ◆ Repetitive 	<ul style="list-style-type: none"> ◆ Challenging ◆ Tricks ◆ Strategies ◆ Accommodations ◆ Build on strengths ◆ “Ignore” weaknesses ◆ Problem solving (organization)



Informal Screening of Learners

By Pat Hatt

Informal screening depends on good interview skills.

What are we looking for? . . .

. . . A discrepancy!

Why is an intelligent person consistently not succeeding?

Interview Questions (A discussion with the learner):

Name:

Date:

Address:

School History:

Additional Questions for Discussion:

What are the learner's family responsibilities?

What is the learner's work history?

Does the learner like his or her work? If no, why not?

What does the learner think?

Watch for...

“Normal” life, living, working responses to questions

VS

Unexplained failure to succeed at school and work



How to Identify Auditory Learning Disabilities

- ◆ Can remember words they know
- ◆ Guesses words that look like the word (ie.. attraction or attractive)
- ◆ Has trouble with big words
- ◆ They say they have trouble with pronunciation
- ◆ Can't blend sounds well
- ◆ May know sounds but mixes them up when sounding out
- ◆ Doesn't respond to rhyming clues
- ◆ Spelling based on known words

How to Identify Visual Learning Disabilities

- ◆ Can sound out words
- ◆ Can blend sounds
- ◆ Can substitute letters
- ◆ Can work with word families/ rhyming words
- ◆ Very verbal, will chat
- ◆ Can't recognize words that they "know"
- ◆ Has trouble with oral reading, stumbles, hesitates
- ◆ Gets lost and uses finger to find spot
- ◆ Spelling is based on the sounds
- ◆ Problems with irregular sounds (ough, eigh)

How to Identify Organizational Learning Disabilities

- ◆ May take longer to understand and respond to your questions, but the quality of the answer is good
- ◆ May have trouble giving clear, concise answers to simple questions
- ◆ May need rewording of questions, but answer is good
- ◆ Complains they have trouble focusing
- ◆ Has trouble with attendance and follow through



Other Possible Issues

- ◆ Developmental / Intellectual disabilities
- ◆ Learned helplessness
- ◆ School-based skills deficit
- ◆ Head injury

Key Factor for Success . . .

- ◆ Teach in the way your learner learns best!
- ◆ Don't water-down the skill!

Discuss, suggest and make accommodations that suit the learner.





Pat Hatt on Learning Disabilities

What is a Learning Disability?

There are many useful definitions and descriptions of “learning disability”. In the field of literacy, however, the simplest and most useful way to explain it is to say that a person with a learning disability is a normal individual with an information processing disability. However, one must first understand and accept that a learning disability is not a weakness or due to a lack of skills training. It is not caused by a lack of motivation, an inappropriate curriculum or ineffective teachers. It is a real, diagnosable disability. As such, people with learning disabilities have the right to appropriate accommodation (changes in learning and teaching strategies). This right is assured within the Canadian Federal Charter of Rights and Freedoms.

Learning disabilities can affect the way in which a learner reads, comprehends, writes, spells, speaks, calculates, makes informal choices or stores and retrieves information.

While there are numerous types or subsets of learning disabilities, the ones that affect literacy can be organized into three main clusters.

- ◆ Problems processing visual information
- ◆ Problems processing auditory information
- ◆ Problems organizing information for comprehension, storage and retrieval.

What is Dyslexia?

You may have a learner who says they have been told they have dyslexia. Dyslexia is a medical term to describe an individual’s inability to access and successfully decode written language. One could say dyslexia is a “subtype” of the more generic term ‘learning disability’.

Note: In Britain and Western Europe Dyslexia is used as the generic term for what we call Learning Disabilities and Learning Disabilities is the term they use for developmental or intellectual disabilities.



How Do Learning Disabilities Affect Literacy Acquisition?

In order to make sense of written language the brain uses three main decoding strategies:

- ◆ One: it immediately recognizes a word and can make sense of it.
- ◆ Two: if it is unfamiliar with the word it breaks it down into sounds and on “hearing” the word recognizes it and makes sense of it.
- ◆ Three: sometimes the brain needs more information than the look or sound of a word. It then ‘reasons out’ the word, given the information gathered from other sources (pictures, context, root words set, etc).

If an individual has a learning disability that interferes with any one of these three areas they are significantly disadvantaged. Sometimes this disadvantage is intensified by the use of a reading curriculum that puts more emphasis on one decoding skill than the other two. Unfortunately, the public education system has a history of switching between the three main reading methods - sight, phonics and whole language - rather than using a combination of methods or the best method for a particular learner. Fortunately when working with adults, we are able to select the method best suited to the learner, rather than trying to make the learner fit the method.

Sometimes practitioners say, “My learner has equal problems in each area. What should I do?” If this is the case, one should learn more about the learner. However, when all areas of learning are weak, there is a good chance the learner may have an intellectual disability, not a learning disability. If that is the case, you will need to change the focus of your teaching. All learners – whether learning disabled, intellectually disabled or gifted - deserve the program that is best suited to their needs and strengths.





Attention Deficit Hyperactivity Disorder (ADHD)

By Pat Hatt

This disorder, though not a learning disability, is often associated with learning disabilities and many people with ADHD also have learning disabilities.

Attention Deficit Hyperactivity Disorder is not a learning disability. However, we know that between 60 and 80 percent of individuals with ADHD have learning disabilities as well. Many individuals with ADHD have organizational learning disabilities.

ADHD is a psychiatric disability – a medical condition - that needs to be diagnosed and treated by a medical doctor - preferably a qualified psychiatrist. Most medical professionals understand that these learners may need more than medical intervention. Learners with ADHD also need their instruction and evaluation adjusted to accommodate the negative effects of their ADHD.

ADHD is caused by the body’s inability or difficulty in producing a chemical that suppresses some undesirable or inappropriate behaviours. Younger children with ADHD are often hyper and constantly moving – they have great difficulty ever being still. Older children and adults with ADHD are unable to focus and stay on or complete tasks.

At one time, it was believed that only boys were affected by ADHD. Now we know that girls can have the condition as well. Rather than the hyperactivity that boys with ADHD often display, the inability to focus and stay on task may manifest itself in “day dreaming” behaviour in girls. However, ADHD interferes with both concentration and memory in both sexes.

Some individuals with ADHD are medicated with stimulants such as Ritalin. The stimulant sparks the production of the chemical that inhibits inappropriate behaviour. But medication is not the only option. Individuals with ADHD can learn specific strategies to help them focus. For example, most people with ADHD respond well to a reduction in environmental stimuli. It may be beneficial for a learner with ADHD to write an exam in a



quiet room. Other learners find it helpful to listen to music which creates “white noise” and reduces or eliminates the other noises which cause them to be distracted. Some learners are able to quite quickly and independently learn strategies that work for them. Other learners will need the help of a trained professional to learn and practice effective strategies.

The vast majority of learners with ADHD are of average or above average intelligence. They want to learn, but so much interferes. Many individuals with ADHD become disheartened and quit if they do not meet with success. That is why the time they devote to learning must be productive and based in subject areas that they see as meaningful. They have a limited amount of energy and they don’t want to waste time learning things they think are useless. It is often necessary to “sell” them on learning skills they cannot see an immediate use for.

It is critical to remember that ADHD is not a behavioural or emotional problem. It is not something that an individual can likely control on their own. It is a medical condition and learners with ADHD need to find the best ways to deal with the manifestations of the condition.

With help and good literacy skills, individuals with ADHD can reach their potential; they are often the high achievers in our society.



Teaching Strategies for the Three Learning Disability Clusters

Strategies for Learners with a Visual Processing Learning Disability

- ◆ Use a sound or phonics-based reading program.
- ◆ Teach irregular sound combinations like “tion” and “ing”.
- ◆ Teach vowel rules. For example: “when two vowels go out walking, the first one does the talking”.
- ◆ Use short poems. The rhyme and rhythm in poems help in predicting sounds and words.
- ◆ Teach skimming skills. This helps learners to get the “gist” of what a piece of text is about.
- ◆ Teach scanning skills. This helps learners to look for where important information in the text can usually be found.
- ◆ Give learners cloze exercises (leave every #th word blank) to help with prediction and break word by word reading patterns.
- ◆ Don’t have learners read aloud if it makes them feel uncomfortable.
- ◆ Teach pre-reading skills to show learners what to look for when reading.
- ◆ Teach meta-cognitive skills (awareness of one’s own thinking) to help learners interact with text and to make it personal and meaningful.
- ◆ Teach word families with emphasis on sounds.
- ◆ Use spelling tricks.
- ◆ Use sounds to remember words for spelling. For example: “Scissor” – “s(k)issor”
- ◆ Use word sentences to help memory (mnemonics). For example: “Every Good Boy Deserves Fudge” for the lines in written music.



Strategies for Learners with an Auditory Processing Learning Disability:

- ◆ Use a sight word approach for reading.
- ◆ Use flash cards with personalized/meaningful vocabulary.
- ◆ Teach structure rules for prefix, suffix, root word, plurals, etc.
- ◆ Use learners' own stories to start reading rather than prepared texts.
- ◆ Have learners write out words and stories. The act of writing helps imprint the words.
- ◆ Use a spelling list to approach spelling.
- ◆ Note the shape or draw an outline around difficult to remember words.
- ◆ Use cloze exercises to help learners see they can predict unknown words through context clues.
- ◆ Don't have learners read aloud until they know the vocabulary well.
- ◆ Teach learners new words before reading a passage.
- ◆ Teach pre-reading questions so learners know what to look for in a text.
- ◆ Organize rules in charts to help learners access and remember information.
- ◆ Teach word search skills to find answers.
- ◆ Use spelling tricks.
- ◆ Use pictures to remember words. For example: Scissors - the two "ss" are loops on scissors.
- ◆ Write useful information for learners in charts. This helps learners organize, access and remember information.



Strategies for Learners with an Organizational Learning Disability or for Learners Who Lack School-based Skills:

Explain what reading is like:

- ◆ Reading involves decoding. To decode, readers use sound, sight and context clues.
- ◆ To make reading meaningful, readers must make information they read link up to information they already know.
- ◆ Writers use patterns for different kinds of texts. For example, in newspaper articles the most important information is in the first paragraph.
- ◆ There are several different ways to read:
 - ◆ For general information, ie. newspapers
 - ◆ For enjoyment, ie. novels
 - ◆ For specific information, ie. text book or manual

Teach Comprehension Skills:

- ◆ Ask pre-reading questions. Pre-reading questions stimulate interest and help learners tap into background knowledge.
- ◆ Show learners how to get information about a text from titles, pictures and graphics.
- ◆ Remind learners to look for answers to “who, why, what, where, and when”... while reading a text.
- ◆ Demonstrate a “word search”. Choose a key word from a reading question and then have learners locate that key word in the text in order to find the answer to the question.
- ◆ Show learners that questions developed for use with a text usually occur in the same order as the text is written (the answer to the first question will probably be near the beginning of the text).
- ◆ Make learners aware of glossaries or indexes found at the back of books. Teach learners to find the answer to a specific question in a book by finding out where the information is using the index. Teach learners to use a glossary for finding definitions of words used in a book.



Other Strategies:

- ◆ Use spelling tricks. For example: “business”: You take the “bus” to work, don’t forget the “sin” in business, \$\$ - You want to earn a lot of money.

Other spelling tricks:

- Words that end in “ce” are nouns.
 - Words that end in “se” are verbs. For example: advise/advice or practise/practice
- ◆ Find out or observe the successful strategies learners use. Share your observations with the learner.
 - ◆ Help learners understand why things happen and help them see how new information is “like” information they have.



Literacy Demonstrations, Skills Integrity & Appropriate Accommodations

What is a Literacy Demonstration?

A literacy demonstration is an opportunity for a learner to show that he or she is able to perform a skill or set of skills in the context of a personal, real-life situation. We know that skills practised in isolation don't transfer when applied in a real life situation. It is therefore preferable to practise skills while performing a meaningful task.

In the next section of this guide, three example case histories of adult learners with learning disabilities are presented. Each case includes a literacy demonstration and accommodations. Individual learner goals within the case histories are based on common areas of interest to learners:

- ◆ employment
- ◆ further education or training
- ◆ personal growth and development

What does “Skills Integrity” Mean?

Skills ‘integrity’ relates to the need to ensure that if we provide a learner with accommodations, the learner is independently able to use a skill and/or to use it to learn a more complex skill. A skill lacks integrity when it does not allow a learner to do either of these two things. For example, an instructor may believe that they can ‘accommodate’ a learner who can't spell by giving the learner the correct spelling or by correcting the learner's work. This is not an appropriate accommodation; when the instructor is not present the learner is unable to produce correctly spelled words.

However, if the instructor teaches the learner how to use a hand held spell checker, or a computer spell checker, and ensures that the learner has sufficient knowledge of grammar, spelling rules, spelling tricks and other strategies to work out how a word is spelled, the learner is then independent. The learner still has significant spelling problems but can independently produce a correctly spelled piece of work. The integrity of the skill is then said to remain intact.



What is an “Appropriate Accommodation”?

Normally people don’t talk about ‘appropriate’ accommodations in the world of disability issues and rights. The use of the word ‘appropriate’ suggests that there is a judgement being made.

Individuals with disabilities have a right to accommodations. Therefore, the issue of what is “appropriate” is not stressed. However, since we in the field of literacy are just beginning to work out what ‘good’ and ‘useful’ accommodations are with our learners, we need to examine what is or is not appropriate.

“Accommodation” is the adjustment of a rule, practice, condition or requirement to take into account the specific needs of an individual or group. To some degree it involves treating individuals differently. Different treatment to adjust for a disability is legally required if the accommodation is needed to ensure that the person has the opportunity to participate fully and equally.
The Learning Disabilities Association of Canada

People with other kinds of disabilities describe the kinds of accommodations they require. Our learners are often totally unaware or at least unable to articulate what works best for them. Together the learner and the practitioner need to discover what works best. Often a learner will reject the use of an accommodation. They may believe that whatever you suggest is a “crutch” - that it is cheating or that you are denying them the right to learn to do it the right way.

You might try to explain that, when someone has a broken leg, a temporary crutch is a useful tool to help him or her get around. When their leg heals it is no longer needed. However, if someone has lost their leg they use a crutch or a wheelchair to get around. Their leg will not get better and their wheelchair ensures they can move around and get on with their life. To a person with a learning disability, the accommodation is like the wheelchair, something that enables them to get on with their life.

However some learners can’t relate to the above example. You might remind them about individuals who can’t read without their glasses. They will agree that glasses are not “cheating” and the individual would never be told to do their school work without their glasses. Glasses for someone with vision problems are an appropriate accommodation. Together the learner and the practitioner might find the appropriate accommodation that will allow the learner to be successful and move on with their life. Finding the best way for a learner to perform a task is what accommodation is all about.



To be an accommodation, the answer to the following three questions must be yes.	YES	NO
1. Does the accommodation make use of at least one of the following: <ul style="list-style-type: none"> ◆ Support people ◆ Print material ◆ Technology ◆ Environmental modification 		
2. Does it allow the individual to both <ul style="list-style-type: none"> ◆ use her/his strengths to minimize the effect of the disability? ◆ become independent in the use of the skill? 		
3. Does it allow the individual to be more efficient and effective?		

Learned Helplessness

For many individuals having a disability has created barriers to being successful at school. Often, they have learned that “if you don’t try, you can’t fail.” It is often the case that these learners use the same strategies even when they know these strategies don’t work for them. Some learners with learning disabilities give up easily – too easily. They feel it is your job to teach them, not theirs to learn. These learners need to be pushed (gently).





Suggestions for Accommodations & Adaptations

Disorder	Accommodation	Adaptation
Oral Communication	<ul style="list-style-type: none"> ◆ provide model for learner to imitate ◆ repeat then rephrase instructions ◆ use a tape recorder for learner to record own speech for self-correction ◆ give assignments in small groups to facilitate language development ◆ allow learner to speak or read aloud first to reduce anxiety 	<ul style="list-style-type: none"> ◆ allow advanced practice of oral presentations ◆ eliminate competitive practice activities (e.g./ timed drills, spelling bees) ◆ accept oral responses commensurate with language abilities ◆ have learner read orally to teacher or peer
Reading	<ul style="list-style-type: none"> ◆ read assignment orally to learner ◆ use variety of teaching methods and materials ◆ allow learner to use books on tape or have peers read aloud ◆ allow learner to read aloud or silently, whichever is the most comfortable and increases comprehension 	<ul style="list-style-type: none"> ◆ use word banks and personal dictionaries ◆ display and use rule/pronunciation guide ◆ reduce amount of text by providing condensed notes of the assignment ◆ pair written word with picture of word representing meaning ◆ color-code sound and word patterns



Disorder	Accommodation	Adaptation
Math	<ul style="list-style-type: none"> ◆ use manipulatives ◆ allow use of calculator ◆ allow learner to answer orally ◆ provide a recorder or have peer write or transfer written work or answers ◆ use graph paper to write individual digits in number problems ◆ extend time to complete assignments 	<ul style="list-style-type: none"> ◆ reduce difficulty of reading level for word problems ◆ allow learner to use strategies during assignments and tests ◆ grade pass/fail or change the grading scale
Writing	<ul style="list-style-type: none"> ◆ use oral responses to written assignments or tests ◆ allow use of word processors, spell checkers, grammar checkers, and word prediction software ◆ extend time to complete assignments 	<ul style="list-style-type: none"> ◆ judge spelling only on spelling tests ◆ accept legible cursive or manuscript (printing) handwriting ◆ allow learner to dictate written assignments to peer recorder ◆ approve the use of outlines and visual organizers
ADHD	<ul style="list-style-type: none"> ◆ break tasks into sequential steps ◆ reduce or minimize distractions ◆ place learners near instructor ◆ use study carrels in the classroom ◆ provide small group or individualized instruction ◆ demonstrate task before asking learner to perform it 	<ul style="list-style-type: none"> ◆ include/increase visual cues in notebooks, workbooks, and assignments ◆ use visual organizers to solve problems ◆ have learner summarize instructions before beginning tasks ◆ reduce the number of items on assignments and tests



Assistive Technology and Learning Disabilities

What is Assistive Technology¹?

Assistive technology (AT) can be any item, piece of equipment or product that can be used to assist, maintain or improve the capabilities of people with learning disabilities. Assistive technology helps individuals with learning disabilities work around specific deficits by offering alternative approaches to successfully completing tasks.

Examples of assistive technology include low tech items such as graph paper, index cards and digital watches or high tech items such as voice recognition programs and software writing programs. The key to the successful use of assistive technology is finding the right match between the AT tool, the learning disability and the task.

Benefits of Assistive Technology

- ◆ AT can help people with learning disabilities be more independent.
- ◆ Using AT can provide people with learning disabilities with more choices and greater freedom.
- ◆ AT helps people with learning disabilities to experience success at home, at school, at work and in the community.
- ◆ AT, when successfully applied, can increase people's confidence and self-esteem.
- ◆ AT can help people of all ages.
- ◆ AT can remove barriers by providing the tools for possible employment and opportunities for education.

For more comprehensive information on assistive technology, refer to the Learning Disabilities Association of Canada's website, <http://www.ldac-taac.ca>.

Topics include:

- ◆ What happens when assistive technology does not work?
- ◆ Selection of assistive technology for specific difficulties
- ◆ Myths and realities of assistive technology

¹ Information taken and/or adapted from the Learning Disabilities Association of Canada. Retrieved January 18, 2005 from http://www.ldac-taac.ca/indepth/tech_examples-e.asp



- ◆ Examples of assistive technology
- ◆ Resources

Assistive Technology to Support Literacy Learners with Disabilities

The NWT Literacy Council has produced *A Guide to Assistive Technology* that provides possible assistive technology tools and solutions for persons with disabilities. While it does not cover all possible products or endorse any specific product it does give the reader a good idea of the software, hardware, and equipment that are commonly available. Order information and in some cases, free download website information are also included.

Guide to Assistive Technology is available online at www.nwt.literacy.ca.

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Case History #1

Level 110

Organizational Disability

Leesie is 25 years old and lives at home with her sister, two brothers and parents. She is attractive, friendly and is always smiling and joking with people. People often describe her as free-spirited. Leesie has worked at the Northern Store for two years. Her supervisor says that customers love her but she is not reliable or consistent in the way she performs her duties. Leesie attends an upgrading class at the local community learning centre.

Leesie had difficulty with writing in school. She has always had trouble with answering math questions in her head, even simple ones. At work, she often gives people the wrong change. Leesie takes coffee orders for staff at work and often gets the order mixed up and wrong. Leesie often blurts out the first thing that pops into her head. This often takes a group conversation off topic. Sometimes what she says is not the truth, but a convenient answer.

Leesie would like to improve her skills so that she can get a better paying job and move away from her family home into an apartment with her best friend. She is serious about trying to find a job as a receptionist. She knows that she will have to be able to take phone messages and do a small amount of typing.



Level 110 Writing – Organizational Disability

Learner Profile	Leesie rarely wrote in school. She is serious about finding her own apartment and wants to apply for a job as a receptionist. The job she wants requires her to record brief messages and do some basic typing tasks. She needs to be able to write a simple, correctly spelled message.
Short Term Goal	To write at the 110 level so she can pursue her employment goals.
Demonstration	Leesie must take a simple message from five students on her own. She must write the message down with the name of the person that the message is for.
Skill and Level	Write simple but complete sentences.
Effect of the Learning Disability	Leesie tends to not follow through with written tasks. Her sentences are fragments and the spelling is haphazard. She can spell, but doesn't apply rules or take the time to search her memory for a specific spelling rule.
Accommodation	Leesie's peers give her feedback about her work. This is important to her. Also, she has learned to use a message pad to record messages. She wrote a list of the correct spelling of everyone's name and refers to it when taking the message. She has also learned to ask someone to spell a word in their message so that her message can be understood by the reader.
Learner's Words	"I never wrote messages down and then I would forget. I was embarrassed that I couldn't spell simple stuff like names. But most of all, it was easier to say "sure, okay" and then forget. When I got caught, I would say "Oh I lost it" or "did you say that? Gosh, I don't remember. Sorry". I know it looks careless, but I didn't know how to change it. You know, just having a list of names to refer to and learning how to ask how to spell a word helps. Just using the message pad helped me fill in the name of the person who the message was for. I don't need to forget, I can do it now."



Level 110 Listening and Speaking – Organizational Disability

Learner Profile	Leesie has always said the first thing that pops into her head. Often it takes a group conversation off topic. Sometimes what she says is not the truth, but a convenient answer. She wants to present herself as a consistent and hard working individual in order to obtain a job as a receptionist.
Short Term Goal	To listen and speak at the 110 level so she can achieve her employment goal.
Demonstration	During the next five literacy classes she must wait at least five seconds before responding to any question asked by the practitioner or a classmate, plan her response and answer thoughtfully and truthfully.
Skill and Level	Responds correctly to questions or comments.
Effect of the Learning Disability	Leesie is highly impulsive. She has ADHD and is often unable to focus. She says what is in her head or what the questioner wants to hear. She does not see it as lying but others do.
Accommodation	The practitioner and the other students must allow her those five seconds to answer and take her responses seriously. They must ‘call’ her on anything they believe is not accurate or true. Leesie must learn to use this strategy on her own.
Learner’s Words	“Just taking that five seconds forces me to think about the correct response or whether I really have something to say. I feel better about being in a group discussion. Before it was sort of a ‘hit and run’ before anyone realized what I said and could question me.”



Level 110 Math – Organizational Disability

Learner Profile	Leesie has always had trouble with answering math questions in her head, even simple ones. She wants to find a way to deal with this problem as she will often be asked to place coffee orders from several people and ensure everyone receives the correct order. She needs to be able to add more effectively.
Short Term Goal	To do math at the 110 level.
Demonstration	Leesie is required to add five single digit numbers in her head.
Skill and Level	Mentally add one-digit numbers.
Effect of the Learning Disability	Leesie’s problems with focusing are made worse under stress. She usually just guesses, often incorrectly.
Accommodation	Leesie keeps a small note pad and writes down the sum of the first two numbers. She then writes down the sum of the first two numbers and the third number and so on. Later she may use a calculator. Leesie is still required to do math mentally; however, she is allowed to use paper to assist her.
Learner’s Words	“When I’m sent out for several coffee orders at work I don’t have to pay the coffee shop because it goes on our tab. However, I used to get the number of coffee and cream coffee, no sugar etc. confused. Everyone got so mad at me. I made this order form from the coffee shop. Now I can check off the boxes and just count up the number of each kind. It’s so easy now.”





Case History #2

Level 110

Auditory Processing Disability

Simeoni is in his late 20's. He left school at age 14 because he said, "he wasn't learning anything". He had lots of small jobs but always got into arguments over complaints that he had not done the job that he had been told to do. Simeoni doesn't like to write as he can't spell most words. He can't sound them out so he feels lost and stupid. Simeoni tends to get into trouble because he doesn't 'understand' what people tell him to do. This has been a huge problem at work. Simeoni is just coming to understand that maybe he is not 'hearing' what is said. Simeoni, with practice, is good at math but he isn't familiar with math vocabulary and has difficulty reading math problems or explaining how he got an answer. Simeoni is working with a literacy tutor to upgrade his skills.



Level 110 Reading – Auditory Processing Disability

Learner Profile	Simeoni is in his late 20's. He left school at age 14 because he said, "he wasn't learning anything". He had lots of small jobs but always got into arguments over complaints that he had not done the job that he had been told to do. He knows he can't get ahead without better reading and writing skills. He has work skills but that is not enough. He has to be able to read better.
Short Term Goal	Read at the 110 level to pursue his educational goals.
Demonstration	Simeoni must read a passage developed by his tutor containing words from his known sight vocabulary. He must then figure out unknown words using context or root words and explain to his instructor how he figured them out.
Skill and Level	Uses a variety of strategies to determine the meaning of unfamiliar words (for example: uses the context, breaks the word into syllables or other recognizable units; uses a dictionary; uses phonics)
Effect of the Learning Disability	Simeoni is unable to decode using sounds. He needs to expand his choices beyond "I know this word", "I don't know it". He guesses words based on what the word looks like and not what it means.
Accommodation	Simeoni is not evaluated on his ability to use phonetic based skills, only sight and context cues.
Learner's Words	"People always told me not to guess what a word was. They used to say sound it out. Well I just can't. I've really tried but I can't. Now that I know some different ways to figure out a word like what word fits or makes sense. It's great. I was always told to look for little words in the words and sound it out. That didn't work neither. Now my tutor taught me to see if I can find a base word - root word he calls it - and that sometimes helps me figure it out. I like that he doesn't always tell me to sound it out."



Level 110 Writing – Auditory Processing Disability

Learner Profile	Simeoni doesn't like to write because he can't spell most words. He can't sound them out so he feels lost and stupid. Simeoni wants to be able to write simple answers to questions.
Short Term Goal	To write at the 110 level to reach his education goal.
Demonstration	Simeoni must answer simple questions based on a story he has read. The answers have to be sentences and the words must be spelled correctly.
Skill and Level	Writes answers to simple comprehension questions in sentence form.
Effect of the Learning Disability	Simeoni's visual memory is good once he learns a word, but using sounds to spell is extremely difficult. He needs a more reliable way to write words he can't remember how to spell.
Accommodation	Simeoni has a small book that he is using as a personal dictionary. Later as he gets a job these words and others can be loaded on his computer or palm pilot. Simeoni is not evaluated on his ability to spell individual words (for example, during a spelling test) but on his ability to produce a correctly spelled sentence.
Learner's Words	"This word book I use is great. It took me a while to decide that my tutor was right; that it is better for me to write using the words in the book than it is to not write because I can't figure out how to spell that myself. I love it that it doesn't go against me, my poor spelling that is. Now I'm getting to be a pretty good writer. I never seem to be able to say what I wanted when I talked. Now I can get my idea across when I write. Funny huh?"



Level 110 Speaking and Listening Auditory Processing Disability

Learner Profile	Simeoni tends to get into trouble because he doesn't 'understand' what people tell him to do. This has been a huge problem at work. He is just coming to understand that maybe he is not 'hearing' what is said. But he needs to learn to ask for clarification and to learn ways to understand and remember information given orally.
Short Term Goal	To speak and listen at the 110 level to pursue his educational goals.
Demonstration	After being given a short series of instructions for a class assignment, Simeoni asks appropriate questions to ensure he has all the information and then repeats back the instruction correctly.
Skill and Level	Ask for clarification.
Effect of the Learning Disability	Simeoni processes information slowly and therefore he misses the second and third step in instructions. He is often unaware that step 2 and 3 were even discussed.
Accommodation	Simeoni learns to use an assignment diary with different categories and fills in the subject, length, due dates and other information needed to complete a task. If one of the categories is empty, he practices how to politely get his instructor to give him the specific information. Simeoni is not assumed to be competent just using his memory.
Learner's Words	"I never knew I missed so much. I thought people were lying to me, picking on me and trying to make me feel stupid. Now using my assignment diary I can see when I missed something. I think I can find a way to use this at work. That way I'll be sure I know what to do."



Level 110 Math Auditory Processing Disability

Learner Profile	With practice, Simeoni is good at math but he isn't familiar with math vocabulary and has difficulty reading math problems and explaining how he got an answer. Math is more than numbers; it's understanding relationships and using accurate vocabulary to explain them. Simeoni wants to expand his math vocabulary and his ability to describe relationships.
Short Term Goal	To do math at the 110 level to move toward his education goal.
Demonstration	To explain to his literacy group why multiplication is just fast adding.
Skill and Level	Explain a pattern rule.
Effect of the Learning Disability	Language does not come easily to Simeoni. He thinks in pictures not words. He can visualize and understand how a math rule works, but is unable to verbalize his thoughts to others.
Accommodation	Simeoni learns to make a visual representation of the relationship to be described. He then puts in the words and constructs a sentence from that model. He will continue to use diagrams to organize his thoughts prior to speaking or writing information. Simeoni is evaluated on his understanding and use of his diagram as well as his presentation.
Learner's Words	"I really like making diagrams to try to figure out what I want to say. It makes more sense that way. Then I can make sure the words I use are the right ones. I feel I can explain what I want better."





Case History #3

Level 120

Visual Processing Disability

Asivak is a young mom who has a long term goal to become an economic development officer in her community. She is friendly and outgoing but she is not good at details. She understands broad concepts but can't back up her views with facts. Asivak knows that she makes some errors when she writes because she still has grammar and spelling rules to learn. But some of her errors seem to happen for no reason. Asivak knows that she will have to make presentations in the business world and wants to do well but she tends to ramble on when she speaks. Math concepts have always been easy for Asivak but she often copies down numbers incorrectly. Overall, she didn't do well in school. Asivak knows she will need good numeracy skills to be an economic development officer



Level 120 Reading Visual Processing Disability

Learner Profile	Asivak is a young mom who wants to eventually get a job as an economic development officer. She is friendly and outgoing but she is not good at details. She understands broad concepts but can't back up her views with facts. Asivak wants to get her GED. One of the things she needs to be able to do is to read and understand long written articles and reports.
Short Term Goal	To read at a 120 level in order to move toward her employment goal.
Demonstration	Asivak must read a newspaper article on a local economic development issue. She must then present the issues to her group. Further, she must refer to specific details to back up her assumptions. Accuracy and reliability are key factors.
Skill and Level	Make reasoned judgements about the accuracy and reliability of the information found.
Effect of the Learning Disability	Asivak has a problem with word recognition and therefore skims over a text rather than reading for details. She is able to understand the concept but misses details. If she reads for detail she tires quickly and loses her train of thought.
Accommodation	Asivak must learn to better identify and isolate supporting details. By writing key words down as she reads, Asivak can go back after she understands the passage as a whole and read the individual sentence with the key words in it. She can then list details under each key word. These details can then be used for her oral presentation.
Learner's Words	"I really like this new way of getting detail. Now I get my cake and eat it too. I know what the article is about and I can answer questions about details. My notes are great and I am now able to be more organized in my presentation."



Level 120 Writing Visual Processing Disability

Learner Profile	Asivak knows that she makes errors when she writes. Some of these errors are spelling mistakes and others are due to a poor grasp of grammar. Asivak is embarrassed about this.
Short Term Goal	To write at a 120 level in order to move towards her educational goal.
Demonstration	To produce a correctly spelled and grammatically correct piece of writing by editing her own work. Asivak must write a response to an article selected by her instructor from the newspaper.
Skill and Level	Proofreads and corrects final draft, focusing on basic grammar, punctuation and spelling.
Effect of the Learning Disability	Asivak makes unexplained errors in grammar, spelling and punctuation when reading her work and when writing.
Accommodation	Asivak types her final draft on the computer. Next, she runs it through the spelling and grammar checking programs. She then prints it off. Using her finger she points to each word to see if it says what she means to convey. Asivak then asks a competent friend to read the draft for errors and correct them before she hands the paper in.
Learner's Words	"Before I just wrote. I knew it was bad but I was afraid to ask for help. Now I know using the spell and grammar check on the computer and my 'finger check' helps me to produce better writing. I feel I can ask friends to check my work. Sometimes my friends don't find anything wrong. I feel so good."



Level 120 Speaking and Listening Visual Processing Disability

Learner Profile	Asivak loves to talk but rambles on if allowed. She knows that she will have to make presentations in the business world and wants to do well. She wants to have the speaking and listening skills to be successful in a team related situation.
Short Term Goal	To speak and listen at a 120 level in order to move toward her education goal.
Demonstration	To make a presentation to her class that she will repeat at her upcoming local school parent meeting on the need for an improved physical education program.
Skill and Level	To be able to present information to others in a focused and organized form on a topic of mutual interest.
Effect of the Learning Disability	Asivak likes to talk but she is not good at detail and is not able to organize her thoughts well. She needs a template for organizing her presentations.
Accommodation	Asivak always says she feels 'like a wreck' after she speaks in public. She and her instructor developed the template IREC. She uses it to organize her thoughts. 'I' is state the issue, 'R' is list the reasons, 'E' is give examples for each reason, and 'C' stands for conclusion.
Learner's Words	"I just love this new way to organize my thoughts. I never understood how people did it. When I use "IREC" I feel confident and I can present information the way I like to be able to. I am really proud of myself. It's so easy."



Level 120 Math Visual Processing Disability

Learner Profile	Math concepts have never been difficult for Asivak. Nevertheless, she has great difficulty with accuracy and accurate numeracy skills are needed to work towards achieving her GED. She will need to further develop her numeracy skills to reach her goal of becoming an economic development officer.
Short Term Goal	To do math at the 120 level in order to move toward her education and employment goals.
Demonstration	Using 4 different issues of the local newspaper, chart job listings by wage ranges. For example, in one column chart jobs that fall between 35,000 and 45,000 per year, jobs that fall between 46,000 and 55,000 in another column, ect.
Skill and Level	Design surveys, collect data, and record the results on given spreadsheets or tally charts.
Effect of the Learning Disability	Transcribing numbers correctly is very difficult for Asivak. She often sees numbers in different orders, and dealing with a series of long numbers is difficult. She becomes lost and confused.
Accommodation	Using different coloured highlighters, (a different one for each range), Asivak highlights the number that falls into a specific range with a specific colour. She checks the numbers to make sure she has highlighted correctly by counting the number of digits in each number.
Learner's Words	"I love using the highlighter. I used to get so confused I'd give up. Now I feel I am in control. I almost never make an error now. It's great!"





Suggested Learning Disability Resources

◆ Pat Hatt's Publications:

Published by the:
Toronto District School Board
155 College Street
Toronto, ON, M5T 1P6

- *Supporting and Sharing: Best Practices in Learning Disabilities Practitioner Training*, 2002
- *Best Practices in Exit Assessment and Transition Planning*
- *Working with Learning Outcomes for Adults with Developmental Disabilities*, 1999
- *Literacy Preparation Project for Adults with Developmental Disabilities, Training Manual*, 1998
- *Special Needs Assessment Procedures*
- *Literacy Demonstration Accommodations for Adults with Learning Disabilities: Balancing Accommodation With Skills Integrity*. This resource contains much of the information given to us by Pat Hatt for this guide. The resource is available on the Learning Disabilities Association of Canada's website: <http://ldao.ca>

Resources Available On-line

◆ The Learning Disabilities Association of Canada (LDAC)

323 Chapel St.
Ottawa, Ontario
K1N 7Z2
Tel:(613) 238-5721
Fax: (613) 235-5391
www.ldac-taac.ca



LDAC is the national support organization for all provincial and territorial Learning Disability Associations (LDAs). Nunavut does not currently have a territorial learning disability association.

Two of the resources available from the Learning Disabilities Association of Canada:

- Destination Literacy: Identifying and Teaching Adults with Learning Disabilities, published by LDAC, 1999. ISBN: 0-919053-62-9
- For You, Adults With Learning Disabilities, by Cathy Smith, published by LDAC, 1991, ISBN: 0-919053-21-1

◆ **The Learning Disabilities Association of Ontario (LDAO)**

LDAO's website is an excellent source for learning disability information. Much of the information given to us by Pat Hatt for this guide is now available on this site. From the menu on the left hand side of the home page click on the "Resources" tab, click "read more" under the sub title "Literacy and LD". Click on the title of Pat's resource: "***Literacy Demonstration Accommodations for Adults with Learning Disabilities: Balancing Accommodation With Skills Integrity***"

365 Bloor Street East, Suite 1004
Toronto, Ontario, M4W 3L4
Tel: 416-929-4311
Fax: 416-929-3905
<http://ldao.ca>

◆ **LDOonline**

A U.S. based website focused on children with learning disabilities. The site includes definitions, resources & information for parents, teachers, children & volunteers.

www.ldonline.org



◆ **LD Pride Online**

This website was developed by an adult with learning disabilities. It includes explanations & definitions, strategies, a self-advocacy manual & links to other LD websites.

www.ldpride.net

◆ **LDinfo**

An accessible U.S. based website written for the general public. This site contains a link to an on-line LD self-advocacy manual, “*Uncovering the Mysteries of Your Learning Disability – Discovery, Self-Awareness, Self-Advocacy*”. Written to older children and youth with learning disabilities, this resource is also suitable for adults with LDs and people who work with children and adults with learning disabilities.

www.ldinfo.com

◆ **LD Resources**

This site has research articles, several on-line discussion forums divided into categories such as “education” and “tools and technology” and resources.

www.ldresources.com

◆ **LinguSystems**

3100 4th Avenue
East Moline, IL 61244-9700

www.linguisystems.com

LinguSystems is an American company that specializes in creating and publishing resources for learners with special needs. They have many resources for children and adults with learning disabilities.

◆ **National Institute for Literacy (NIFL)**

“*Bridges to Practice, A Research-based Guide for Literacy Practitioners Serving Adults with Learning Disabilities*”. This on-line resource was the end product of a project in the U.S. to help literacy practitioners identify, teach and support adults with learning disabilities.

www.nifl.gov/nifl/ld/bridges/bridges.html



◆ **National Adult Literacy Database (NALD)**

The National Adult Literacy Database has a large collection of on-line resources and links for learning disabilities information.

www.nald.org

Other Resources

- ◆ *Literacy-Based Supports for Young Adults with FAS/FAE*, by Margaret Raymond & Joe Belanger, 2000. Available from Literacy BC Tel: 604-684-0624
- ◆ *Taking the Mystique out of Learning Disabilities, A Practical Guide for Literacy Tutors*, by Ricki Goldstein, published by Laubach Literacy of Canada, 2000. ISBN: 0-020877-50-8
- ◆ *Teaching Adults Who Learn Differently: An Extensive Guide for Literacy Teachers and Tutors*, 2nd edition, by Louise Skinner, Phyllis Gillespie, Lynda Balkam, published by Red Van Publishers, 2000. ISBN: 1-884896-04-9

