

Understanding Learning Disabilities and Strategies for Tutors of Adult Learners



BC Coalition of
People with Disabilities



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LiteracyBC

Canada

This project was made possible with funding support from the Government of Canada's Office of Literacy and Essential Skills.

Ce projet a été rendu possible grâce à l'appui financier du Bureau de l'alphabétisation et des compétences essentielles du gouvernement du Canada.

Impact of Learning Disabilities

- 15-20% of Canadians are affected (Learning Disability Association of Canada).
- 30-70% of Canadians in adult literacy programs may have a learning disability (Movement for Canadian Literacy, 2006) and this has terrible consequences for people's social, emotional and economic well being.
- Over one-quarter of Canadians with LD ages 22- 29 (28.3%) report less than a high school certificate as their highest academic achievement, compared to 14.9% of the general population.

Some other complications

- Our learners may also have: hearing and or vision issues; autism, mental health issues such as depression, anxiety, schizophrenia.
- They may suffer from the effects of medications, physical disabilities, and have little confidence to engage with others.
- They are also more likely to report being unemployed, have high levels of stress,, suicidal thoughts and visits to a mental health professional and, poorer overall mental and physical health compared to the general population (LDAC 2007).
- 82% of homeless youth have unidentified LD which puts them at greater risk of suicide.
- 75-95% of people in prison have unidentified LD.



Types of Learning disabilities

- Spoken Language-listening and speaking.
- Written language- reading, writing, and spelling.
- Arithmetic- calculation and concepts.
- Reasoning – organization and integration of ideas and concepts.

Specific Types of LD

- Dysgraphia-difficulty forming letters and words using a pen and paper and difficulty producing legible handwriting.
- Dyscalculia-difficulty understanding and using math concepts and symbols.
- Dyspraxia-language comprehension does not match language production (mix up words and sentences when talking).
- Non-verbal – below average motor co-ordination, visual spatial organization and social skills.

Dyslexia

- a disturbance in the ability to read or use language.

Difficulties

- **Auditory:** may miss sounds; middle or end of word e.g. telephone addresses, postal codes
- Difficulty knowing the sounds of letters
- Difficulty finding the right word
- Slower brain processing and poor verbal memory
- **Visual:** can't track across a page
- **Reading** may mix up letters within words and words within the sentence when reading.
- **Spelling** may mix up letters (letter reversal) within words
- **Navigation and route finding-** Difficulty using right /left and /or compass directions
- Difficulty with grammar

Strengths

- Music
- Sports
- Art
- Visual spatial skills can rotate in 3D
- Mechanical
- Reasoning skills
- Carving
- Story telling
- Swimming

How does it affect learners?

- Learning disabilities affect the acquisition, organization, retention, understanding or use of verbal or non-verbal information.
- Learning disabilities are life long.
- Learning disabilities are suggested by unexpected academic underachievement or unusually high levels of effort and support (LDAC, 2007).



Understanding the Learner

- What has the history of learning been like for the learner?
- What strategies for reading, for example, do they use?
- What strategies work for them in terms of time, place and learning styles?
- What other strategies don't they know about yet?

Be aware of what learners are also bringing with them

- FASD
- ADHD
- Issues of trauma and/or abuse or chronic stress
- Mental Illness, past use of drugs
- Brain injury
- Need for different learning styles to be addressed
- Barriers such as childcare, transportation issues
- History of being told they are lazy or just not trying hard enough
- Fear of being yelled at by the teacher

Strategies for working with learners with Learning Disabilities

- Create a welcoming, environment, that is safe, and try to lower their anxiety, set a positive atmosphere, be aware of triggers.
- Look at their strengths
- Build relationship, trust and community
- Offer multimodal strategies
- Have fun topics, games

Strategies for working with learners with Learning Disabilities

- Offer low pressure activities
- Take breaks

- Offer vocabulary for feelings
- Help to control/regulate feelings

- Role play social skills
- Journal topic: What's important to me?....Why am I important?



Diagnosing Learning Disabilities

- Fraught with complexities.
- Can offer insights into a specific learning difficulty.
- Challenge is to develop strategies that work for each individual in the cultural , social and economic context in which they live.
- There is no magic recipe.....no two learners experience learning in the same way.
- What is needed is a diversity of strategies to accommodate a diversity of learning styles and needs.

How to assess

- Reading - accuracy and comprehension
- Ask to sound out pseudo words/ nonwords
Dee, plip, laip, cigbet,
Bufmotherm, moglustamer
- Writing composition - look at the writing, check for missing sounds, may not know what vowels to use, may be hard to put ideas down on paper, check spelling, punctuation, grammar.
- Might get sounds but not conventions e.g. plain for plane
- If they can't write help them get on a computer.

Assess for learning

- Assess what makes them frustrated.
- Find out their best ways of learning (ongoing).
- Record them reading, let them hear themselves played back; offer a whisper phone.
- Try 1-2 strategies and discuss what is working.
- Build in choice, use discussion in decision making.
- Set guidelines with input from learners.

Assess for learning continued

- Confidentiality is important.
- Have a tolerance for error.
- Accommodate long absences.
- Look for opportunities to build social connections inside and outside the class/group. Build their role in the group or in society.
- Confer with others “Here is my learner’s work” or take an audio reading.
- Collaborate with colleagues.



ADHD

- **Attention Deficit Hyperactivity Disorder is a neurobiological disorder.**
- 80% of ADHD is inherited (Faraone, 2000). However, while genetics may set out our potential for ADHD, it is early life experiences which determine whether these genes are turned on or not (epigenetics).
- **A myth is that ADHD is rare-** even the most conservative estimates of “rip-roaring” ADHD, suggest it occurs in nearly 5% of the population. That’s almost a million Canadians.

ADHD

- **ADHD traits exist on a spectrum**; traits like distractibility , hyperactivity , irritability and impulsivity are not black or white, but rather a hundred shades of gray. Everybody has some traits but not everyone has the disorder.
- **In milder ADHD, the traits are usually manageable**, when symptoms are more frequent and more severe they can often be responsible for some measure of underperformance. In extreme cases, ADHD traits can have catastrophic implications.



- **ADHD traits change over time; important factors which influence the trajectory of dysfunction associated with ADHD traits include:**
- Lack of attachment to a primary caregiver
- Early life emotional trauma
- Physical trauma

- Brain injury, especially of the frontal lobes
- Brain infection, toxic exposure
- High Carbohydrate diet (diet of less carbohydrates like unrefined sugars and more protein more frequently may help the brain work better)

- Talk about each of :
 - exercise
 - sleep
 - stress
 - lifestyle

What you may observe

- Says yes, but it is more fun to be oppositional
- More fun to procrastinate because they like stress
- Problems in marriages
- Unfinished projects
- Broken promises
- Impatient with kids
- Substance misuse (30-50%)
- Don't think of consequences
- Frequently late or absent → workplace conflict
- Like to do dangerous things for fun = exciting

ADHD

- Diminished perception of reward = bored
- Creating chaos is more fun
- More traffic accidents
- More STDs
- More teen pregnancy
- More substance abuse
- More delinquency

- Meds are expensive, may cause long term affects

Adult Self Report Scale

ASRS

Cognitive Symptoms

1. Often Distracted
2. Difficulty concentrating
3. Fail to finish tasks
4. Careless mistakes
5. Difficulty listening
6. Difficulty organizing
7. Avoid / Procrastinates
8. Forget Obligations
9. Lose/ misplaces

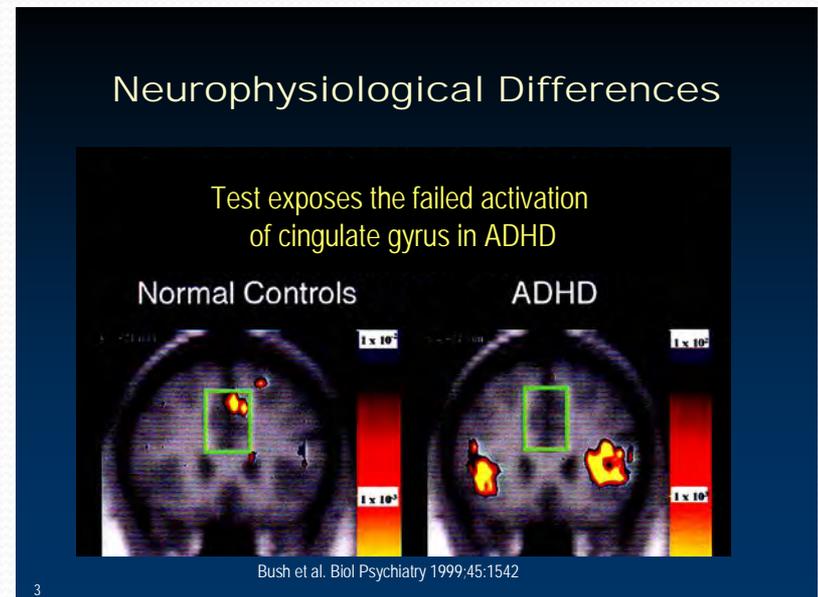
Behavioural Symptoms

1. Fidget
2. Leave seat
3. Restless thoughts
4. Difficulty relaxing
5. Impulsive/ Compulsive
6. Difficulty waiting
7. Talk excessively
8. Blurt-out/ Fail to contain
9. Interrupt others

To sustain attention longer than a few seconds, our brain needs to focus on the object and ignore the background... The ability to filter out distractions, separate the signal from the noise is the essence of dopamine function.

When asked to perform a counting test (while being distracted) those with ADHD failed to stimulate the dopamine mediated circuits in the part of the brain that manages focus and impulse control (anterior cingulate gyrus). On the contrary, they lit up the part of the brain responsible for frustration (Bush 1999) .

Dopamine also plays an important role in motivation, engagement and execution. As Russell Barkley, the most dominant researcher in the field says, “Dopamine allows you to be interested in a task, focus on what needs to be done, avoid distraction while you are doing it, be motivated to do it well and not quit until you are finished.



How to externalize the brain

- Use structure and routines
 - Lists
 - Tasks → make them smaller ones
 - Day timers
 - Keep section of desk clear
 - Keep part of day clear
 - Check emails at certain times of day
 - Empower an associate “to kick you under the table”
- (Ocana, 2009)



FASD (Fetal Alcohol Spectrum Disorder)

- Leading known preventable cause of mental retardation and birth defects and a leading known cause of learning disabilities.
- Affects 1 in 100 infants every year, more than autism, and downs syndrome, cerebral palsy, cystic fibrosis, spina bifida and SIDS combined.
- College educated women age 18-24 are at the highest risk right now.



FASD continued

- Permanent; owing to prenatal exposure (syndrome not discovered until 1973).
- Alcohol can pass through the placenta harming developing fetus' brain.
- Exponential risk with more than three drinks.
- Areas of the brain are missing and there may be other anomalies in body size, facial structure but likely not.

FASD continued

- IQ may be high, typical or low, but FASD affects judgement, memory, and poor understanding of consequences
- Learned items may be forgotten by the next session
- Many incarcerated prisoners are thought to have FASD

What it looks like for the learner

- Missed appointments (unsure of day or time of appointments)
- Difficulty with money and jobs
- Act impulsively

- People think they are able to do tasks that they don't have the ability to do.
- Flat affect because they are overwhelmed.
- Cognitive pace (10 second people in a 2 second world)

- May operate at a younger developmental age
- Easily misled, open to suggestions
- Trouble discerning reality: making the best sense of pieces of life

What it looks like for the learner

- So, learning may be challenging owing to the abstractness of what is to be learned, problems with transfer of learning (applying information learned in one setting to another setting), impulsivity (difficulty stopping oneself from an impulsive behaviour), and other reasons.



Strategies for FASD

- Relationship: be respectful and non-judgemental
- Food, and basic needs may need to be addressed
- Slow down and take breaks
- Simplicity: shorter lists only what's necessary
- Repetition: different ways, visual, verbal etc
- Routine
- Consistency
- Concrete : role play, predict and practice
- Supervise : “walking beside”



More strategies for FASD

- Encourage any small change
- Try differently not harder
- Be empathetic and avoid argument
- Roll with resistance,
- Realistic expectations (can't vs. won't)
- Remove barriers to learning; offer gas vouchers etc.
- Offer something to handle to help them pay attention
- Maintain a sense of humour
- Reframe perception to brain injury

Learning Disabilities can also be acquired.

- Learning disabilities can develop at later points in life due to illness, physical accidents, trauma or change in life circumstances which can lead to chronic stress or anxiety.



Trauma

- A mismatch between modality of teaching and the receptive portions of a specific child's brain can occur. This is particularly true when considering the learning experiences of the traumatized child. Classroom learning cannot occur if the child is in either a persistent state of arousal and anxiety, or of dissociation. When in this state, the key parts of the cortex are not receptive to cognitive information that is not relevant to survival. The traumatized child's brain is essentially unavailable to process efficiently the complex cognitive information being conveyed by the teacher.

Trauma continued

- **Trauma Impairs Interpretation**
- The traumatized child frequently has significant impairment in social and emotional functioning. Hyper-vigilant children frequently develop remarkable non-verbal skills in proportion to their verbal skills (street smarts). They often over-read (misinterpret) non-verbal cues. Eye contact is read as a threat, or a friendly touch is interpreted as an antecedent to seduction and rape. These assessments might have been accurate in the world they came from.

Trauma continued

- During early development, these traumatized children spent so much time in a low-level state of fear that they were focused primarily on non-verbal cues. Once out of such an environment, it is still difficult for the child's brain to interpret (relearn) these innocent looks and touches as benign.
- As children, these adults were often labelled as learning disabled. These difficulties with cognitive organization contribute to a more primitive, less mature style of problem solving -- with violence often being employed as a "tool."

Trauma continued

- This principle is critically important in understanding why adults who were traumatized as children -- in a persistent state of arousal – could sit in a classroom and not learn. The brain of these children had different areas activated -- different parts of the brain controlling functioning.
- The capacity to internalize new verbal cognitive information depends upon having portions of the frontal and related cortical areas activated, which in turn requires a state of attentive calm. Sadly, this is a state that the traumatized child rarely achieves, and why it is important to facilitate a safe, calm learning environment for adults.
- *Various developmental stages as they pertain to the brain and behaviour. Image courtesy of Bruce D. Perry, M.D., Ph.D.*

If Trauma

- Variable moods
- Memory is here today gone tomorrow
- Drowsiness
- Fatigue
- Poor hygiene
- Lack of affect
- Sore back
- Highly medicated
- Dissociative
- Poor social skills
- Hyper vigilance
- Substance abuse
- Not connect with or value others or themselves, put themselves or others down.
- Agitation, angry, ready for a fight
- Lack of boundaries
- Absentee problems
- Poor comprehension
- Isolated
- Insular: little access to reading material, don't watch news, read papers
- Lack organizational skills (binders)
- Memory problems
- Hard to do homework
- Change in progress (mental illness may be cyclical)
- Have been told that LD, ADHD, intellectual disabilities or mental health "disorders" explain all their learning difficulties.



Strategy if you suspect trauma

- Help them build trust in you and in the process of learning and help them relax in your presence
- Once a learner can relax they can open themselves to new learning and experiences and get excited about learning
- Some will be slower than others to let themselves believe that they were capable of learning new things, or deserving of learning new things.
- Find out what the learner would say it would take them to feel strong and productive.

Stress in adults

- With chronic stress, it is not only harder to form new memories it more difficult to retrieve previously formed memories. Chronic stress can also interfere with neuro genesis, the formation of new neurons and connections among neurons. This is essential for the brain to create memories, to learn new tasks, and to make goal-directed decisions. And it is what allows us to adapt to our every changing environment (McClelland and Hamilton, 2010).

What else? You may notice...

- Social skills that are not the norm
- May use life skills to survive
- Losses in self care, eating, brushing teeth
- Sleep disturbances
- Problem with being present
- Chronic isolation
- Difficulty with abstract thoughts to put into categories
- Side effects of meds: memory, blurred vision, tremors (writing difficulties)
- Drowsiness
- Chronic pain
- General knowledge not there



What if the learner had....

A trusting relationship with a tutor or service provider who thought they could learn?

- Learners report they may have had a teacher who thought they were: lazy, a trouble-maker, stupid, or couldn't keep up with the class because they were.....

A suitable learning environment?

- Learners report they may be distracted by busyness of what is on the walls, other students talking, dynamics of class, relationships, friends, fluorescent lights.....



What if the learner had....

An understanding of their own learning style and a good match with their tutor or service provider?

- LD learners may rely on one learning style more than others, and may not know it; they may also not know about all the strategies for reading, spelling etc that successful learners use.

A readiness for learning before they were exposed to formal education ?

- The EDI index indicates that many children are developmentally vulnerable before they come to school. The inequality stems from not having had a secure, nurturing and stimulating early childhood.



What if the learner had....

A brain, nourished and supported....?

- Many learners report trauma to the brain, such as: falling out of trees, car accidents, motorcycle accidents, being thrown from a horse, multiple crises of a personal, interpersonal or economic nature.....

A body well fed?

- Many learners report poverty, poor knowledge of nutrition, irregular eating, disordered eating, ill health owing to poor diet, fatigue, lack of energy, anxiety, depression, and general malaise.....



What if the learner had....

Resources and access to education?

- Learners report past and present barriers to education such as isolation, moving around a lot as a child, transportation, childminding.....

A desire to learn?

- Even though learners report they grew up in an environment of not being read to, where education was not valued, where reading was considered a waste of time, where they may have been bullied at school.....



Resources in our community where clients and learners may first access support....

- Woman's Centre to fill out forms
- Employment Services
- Learning Disability Association
- Income Assistance
- Radio ads/word of mouth, GROW, college, newspaper ads
- **One-to-One Volunteer Adult Tutoring**
- **Group Tutoring**