

# An Overview of Learning Disabilities (LD's)

## Learning Disability Overview and Definition

Learning disabilities (LDs) are neurologically-based and vary from mild or moderate to severe. Often called “invisible” disabilities, LDs are real, persist throughout the life span, and are permanent. LDs are not cognitive delays; individuals with learning disabilities are usually of at least average intelligence. A student with a learning disability may demonstrate difficulties with academic performance that seems at odds with the student’s intellect and ability level.

The Learning Disabilities Association of Canada (LDAC) defines a learning disability as “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)” (2008).

### Learning Disabilities (LD's)

Learning disabilities may include:

Visual Problems: difficulty that the brain has with handling information that the eyes see. These are not conditions that will be eliminated by the use of glasses or contact lenses.

- poor visual memory: not remembering faces, words, people's names, reversals in writing (41 instead of 14),
- visual perception: difficulty in seeing the difference between similar objects such as b and d
- figure ground discrimination: not being able to find the place to write your name on an application form
- visual tracking: ability to follow a line on a page

Auditory Problems: related to the processing of information that we hear.

- Auditory memory: difficulty in remembering what has been said, for example, information or instructions
- Auditory discrimination: trouble telling difference between similar sounds or words - for example, bee and pea or seventeen for seventy
- Auditory sequencing: confusion with number sequence, lists, or directions
- Auditory figure ground: trouble hearing sounds over background noises

Motor Problems: related to various motor functions of the body.

- eye hand co-ordination: difficulties with handwriting, etc.
- small muscle control: misjudging where to place things
- large muscle control: clumsiness, difficulties with certain physical activities

Organizational Problems: poor ability in organizing time or space, or with sequencing

- Poor ability to organize time: not meeting deadlines, being late or too early, poor sense of time
- Poor ability to organize tasks: not understanding the steps required to carry out a particular task such as planning a party or a move
- Poor ability to organize space: organizing a closet, desk, or laying out a page in a written document
- Impairment of executive function: a person's ability to analyze things, apply information in a new way or adapt to new circumstances

Conceptual Problems: understanding abstract concepts, complex language, consequences and social cues.

- difficulty in interpreting non-verbal language: such as facial expressions or body language
- difficulty in understanding figures of speech: such as idioms, metaphors or similes

- difficulty in anticipating the future: difficulty with predicting consequences, for example, purchase something today with borrowed money or may do something impulsive without considering the consequences
  - Rigid thinking: unable to see that flexibility is required to deal with a situation, will not 'see' things in shades of grey but only in black and white
  - Poor social skills and peer relations: not maintaining eye contact during a conversation, using an inappropriate tone of voice or language, lacking the social graces
- (Adapted from: Learning Disabilities Association of Canada, 2005)

### **Academic Accommodations:**

Once a LD has been diagnosed and evaluated by a registered Clinical or Educational Psychologist, the student may be eligible for academic accommodations that include:

- extended time for tests and exams
- separate setting for tests and exams
- reader and/or scribe for tests and exams
- reduced course load
- access to a word processor with editing functions and/or adaptive software for tests and exams
- audio recording of lectures
- assistive technology (eg. laptop, voice recognition & text-to-speech software)
- alternate format of course material (e.g. books-on-tape, e-books)
- in-class note taker
- clarification of questions on exams/tests
- use of a calculator on exams/tests

### **Instructional Classroom Strategies**

- provision of course material, such as reading lists, well in advance of due dates and course start dates
- use of a variety of instructional strategies that reinforce course concepts
- provision of feedback (e.g. error analysis of exams and tests)
- provision of outlines and organizational structure for class lectures
- use of demonstrations, visuals and concrete examples to reinforce course material
- introduction of key vocabulary and concepts prior to each unit of course material
- adequate time to review and clarify course material presented in class before student performance is expected
- allowance of questions prior to the start of an assignment or task to allow for student clarification
- class access to lecture notes/power point presentation slides
- provision of a study guide or outline for quizzes, tests, and exams

### **References**

Learning Disabilities Association of Canada: <http://www.ldac-taac.ca/>