

Phonological Processing.

A phoneme is a small element of language – a sound. The ability to understand and use these is essential for developing written language skills. Students with a deficit in this area will struggle with language – written, or spoken, or read.

Memory and Attention.

The impact of deficits in this area are what you'd expect, and can affect any area of learning or life. The LD can affect short or long term memory, as well as the retrieval of information.

Processing Speed.

By this we refer to the ability to perform simple cognitive or perceptual tasks rapidly and efficiently. Delays in these small, simple tasks can obviously add up to larger issues. Note that we are speaking only of speed and efficiency here, and not an inability to perform the tasks at all.

Language Processing

Language processing has several sub-elements – reception and expression, and written and aural. Any aspect of these can be affected in an individual. Language processing problems can include trouble understanding vocabulary, the ways words and sentences work, and meaning conveyed in larger units of language (like stories, lectures, etc). They can also include difficulty with figurative language and nuances.

Perceptual-Motor Processing

This refers to an individual's ability to use sensory feedback to guide physical movements – what is loosely referred to as "coordination". A deficit in this area can make it difficult to coordinate large or small movements – catching a ball while running, or copying seatwork from the blackboard.

Visual-Spatial Processing

This refers to an individual's ability to organize visual information into meaningful patterns. Visual-spatial processing deficits can show up as problems with figure-ground discrimination – the ability to differentiate between what's printed on a page and what is the page itself – or as problems with perceiving constancy despite changes in context, or the perception of spatial relationships between objects.

Executive Functions

Executive functions allow us to plan, organize, monitor our learning and growth, and use metacognition (thinking about thinking – crucial to developing personal study strategies and become better learners.) Executive functions are strongly affected by ADHD as well as LDs. Students with deficits in this area may struggle with organization, punctuality, and studying.

More information on this and related topics can be found online at www.LDAO.ca. This snapshot was created in Summer 2007. Please share freely, but do not reproduce for purposes of resale.

Learning Disabilities: A Snapshot

What Are Learning Disabilities?

Learning disabilities (LDs) are very common – an estimated 5-10 percent of Canadians have LDs, and some 50% of students receiving special education have LDs.

However, learning disabilities are not widely understood. This confusion has much to do with the fact that LDs are very diverse, complicated disabilities. We hope that this sheet and package help make clear the nature of LDs and how learning is affected by them.

About Learning Disabilities

Learning disabilities refers to a variety of disorders that affect the acquisition, retention, understanding, organization, or use of information. This information is not only academic information – LDs can affect any information: social information, physical information, verbal information.

These disorders result from impairments in one or more psychological processes* related to learning, and affect specific areas of learning in one person - not all areas. People with LDs have average (or greater) abilities for thinking and reasoning.

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

Oral language (e.g., listening, speaking, understanding)

Reading (e.g., decoding, comprehension)

Written language (e.g., spelling, written expression)

Mathematics (e.g., computation, problem solving)

Organization (e.g., planning, follow-through)

Social Skills (e.g., social perception and interaction)

*These psychological processes are explained on the reverse of this sheet.