



The Arrowsmith School – a Different Approach to Dealing with Learning Disabilities

By: Avril Rinn

For more than thirty years, learning disabilities have been recognized and addressed in Canadian schools. Today they are routinely diagnosed and “treated” within the education system. Every school board has a process in place to identify students with learning issues, and offer support services to assist them. The vast majority of these processes are compensatory, and involve teaching students to use computer technology and various learning strategies to manage (or compensate for) their learning issues. This solution focuses on treating the symptoms associated with learning disabilities.

Since 1980, the Arrowsmith School in Toronto has also been assisting students to cope with learning disabilities, but in a very different way. The Arrowsmith approach assesses and diagnoses “learning dysfunctions” in a number of areas, just as the traditional approach does, but there the similarity ends. Instead of training students to use compensatory strategies, this program helps participants “strengthen the weak cognitive capacities underlying their learning dysfunctions through a program of specific cognitive exercises.” Rather than assuming learning disabilities are permanent and unchangeable, Arrowsmith works on the assumption that, with practice, weaker areas of the brain can be strengthened, to reduce or eliminate a learning dysfunction.

The first step toward participation in the Arrowsmith Program is an intensive learning assessment. Students are evaluated in nineteen areas of learning dysfunction, after which a plan is developed to strengthen those areas found to be underperforming. This “training” involves an ingenious array of auditory, visual, verbal, and written exercises designed to address weaknesses found in each of the nineteen areas.

The full-time Arrowsmith Program (part-time programs are also available) involves full days of cognitive exercises, but also includes math and English classes so students stay at or near grade level. Ideally, students attend the Arrowsmith School for two to four years, after which time they are usually able to return to a regular school in the appropriate grade.

A number of formal studies, as well as the anecdotal accounts of parents, children, and teachers offer evidence to support the effectiveness of the Arrowsmith Program. This research supports the Arrowsmith belief that weaknesses in specific cognitive functions can be improved through targeted learning activities. One study concluded that it strongly supported the “effectiveness of the Arrowsmith Program for a wide range of learning disabilities.” Students involved in the program typically begin to see positive results within months, including significant improvement in the areas of reading, writing, attention, and memory.



Learning Disabilities Association of Ontario
London Region



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Despite years of success, and scientific evidence attesting to the efficacy of the program, Arrowsmith is not well known or widely available. In addition to the School's main location in Toronto, the program is offered in only a handful of private schools in Canada and the United States. One reason for this might be financial. To attend the Toronto Arrowsmith School, students must undergo a placement assessment which costs \$2,000, and pay annual tuition of \$21,000. Though no subsidies are available, tuition and travel expenses do qualify in Canada for the Medical Expense Tax Credit.

Scientists once believed the human brain to be a hardwired machine, with little ability to change past a certain age, but a mounting body of recent research suggests that this is not the case. We are learning that, with practice, the brain can transfer certain functions from damaged areas to undamaged ones, and strengthen cognitive processes that are weak or underperforming, just as muscles are strengthened through exercise. Though much of this research appears new, in fact, the study of this subject, called neuroplasticity, goes back more than a century, and the Arrowsmith Program has been using this principal to help student overcome learning disabilities for more than thirty years.

To learn more about the Arrowsmith Program, visit www.arrowsmithschool.org

Understanding Dyslexia

Edited by: Megan Wass

Dyslexia is a term that many of us may have heard at one point or another, but most people are still confused by what it actually means to have it and how it affects people's lives. This article will attempt to help clear up some of the misunderstandings about dyslexia and share some useful facts about this learning disability. To begin, dyslexia is defined by the International Dyslexia Association as being,

"...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 classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge".

The National Institute of Health adds,

"Although the disorder varies from person to person, common characteristics among people with dyslexia are difficulty with spelling, phonological processing (the manipulation of sounds), and/or rapid visual-verbal responding".

Below are some medical and academic facts regarding dyslexia provided by the Dyslexia/ADHD Institutes of America:

Medical Facts

- Only 30% of individuals with dyslexia have difficulty with reversing letters and numbers.
- Difficulty with word reversals are related to issues with sequential working memory.
- Dyslexia is a specific neurological condition that can be seen on a functional MRI that shows brain usage patterns. People with dyslexia have been shown to use the left and right front portions of their brains to read, while non-dyslexics use the left front and right back parts of their brains to read.
- Dyslexia affects a person's ability to read and spell accurately because of memory and/or phonological awareness deficits and therefore requires cognitive and phonological therapy to treat.

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- Dyslexia, like hypertension, can vary in severity.
- No cure for dyslexia is known and it is not outgrown.
- All people with dyslexia are of average or above average intelligence.
- Dyslexia and AD/HD are closely related and often mistakenly confused.
- Dyslexia can be concurrent with deficits in visual-motor integration, visual perception, eye-tracking, and working memory.

Academic Facts

- Dyslexia is not a catchall phrase for all reading or learning disabilities.
- Dyslexia can not be effectively treated using traditional reading or tutoring programs, which tend to stabilize low reading achievement levels instead of eliminating them.
- Dyslexia is NOT simply about reversing letters and numbers; in fact, only a fraction of dyslexics exhibit this characteristic.
- Dyslexia does NOT reduce, or otherwise affect a person's ability to learn, comprehend or acquire knowledge through non-written medias.
- All, but the most severe cases of dyslexia, can learn to read at or above grade level.
- Dyslexia can affect a person's ability to perform at expected levels even after they learn to read at grade level due to continued deficits in working memory, visual perception, and visual-motor integration.

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Inspirational Quotes – issue # 3

Edited by: Megan Wass

Throughout history society has been influenced and shaped by the many great contributions made by individuals with learning disabilities. These people demonstrated the strength and perseverance to be true to themselves and strive for their full potential. The LD Edge Newsletter would like to take the opportunity to introduce you to a few of these incredible people's stories and share their words of wisdom in a series called *Inspirational Quotes*. We hope their words will inspire and motivate you to reach for your true potential.

"I always felt a bit alone and isolated from other people...I did a lot of pretending as a child. It was my way of coping with the fact that I didn't feel like I fit in."

Keanu Reeves - actor, dyslexic

Reeves struggled with academics due to his dyslexia, which contributed to a rambunctious attitude that frequently got him expelled from various schools. He has since gone on to become a blockbuster movie star and a successful musician with his band *Dogstar*. He has acted in countless films including the multimillion dollar *Matrix* science fiction movie trilogy.

"The looks, the stares, the giggles...I wanted to show everybody that I could do better and also that I could read."

Magic Johnson - former NBA star, dyslexic

Johnson played for the Los Angeles Lakers during the 1980s and early 1990s. Playing point guard, he led the Lakers to five NBA championships (1980, 1982, 1985, 1987 and 1988), as well as four other NBA finals appearances.

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We hope you have enjoyed this month's issue of the LD Edge Newsletter and that you are looking forward to the next issue.



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*If we give them an edge...
They may give us one!*