

## Phonics First – Or Bust

By Malkin Dare

I am a reading tutor who works with kids who are having trouble in school because of their poor reading. I succeed in teaching all my students to read, but not all of them learn as well as I would like. As a broad generalization, the younger kids are when I start teaching them phonics, the more fluent readers they become.

The youngest student I ever taught to read was my daughter, who was four at the time. She rapidly became a voracious reader. I have taught no kindergarten students and only one grade 1 student. That grade 1 student soon could read as easily as he could breathe. By way of contrast, none of my grade 4-and-up students has ever gone on to read for pleasure.

When it came to my grade 2 and 3 students, the ones who did best were the ones who had come to me with almost no reading ability. Although these kids had been exposed to reading instruction at school, very little had penetrated. As a result, I was able to more or less introduce these students to reading, starting at the very beginning, and usually they went on to become pretty good readers.

In other words, the more instruction my students had received at school, the worse their chances of becoming comfortable with print. I found this frustrating, and I wondered what was going on.

Then I came across the research of Yale's Sally Shaywitz, MD. Dr. Shaywitz is a neuroscientist and one of the world's leading experts on reading and dyslexia. In her book *Overcoming Dyslexia*, Dr. Shaywitz reports that her MRI studies show differing brain activation patterns in good and poor readers. Most of the brain activity in good readers is in the back of the brain, while the brains of poor readers light up predominantly in the front. It is the back of the brain that is best suited to the development of fast, automatic reading.

Instead of making good use of the systems at the backs of their brains, poor readers turn to "alternate compensatory reading systems". As a result, many do learn to read, but their reading remains "slow and draining". Dr. Shaywitz has identified two distinct groups of poor readers. The first (and smaller) group may have a congenital glitch in brain processing, while the second group has intact brain wiring which has not been properly activated, possibly because of faulty reading instruction.

There are two basic approaches to teaching reading: whole-to-part methods, whereby the students are initially taught to look at words as a whole; and sound-based, whereby students are taught to process words from left to right on the basis of the sounds the letters represent.

I use a purely sound-based approach, but most public school teachers use an approach called "Balanced Literacy", a whole-to-part method. Bal-

anced Literacy, like most holistic methods, incorporates some elements of a sound-based approach (phonics and phonemic awareness), but never enough to quality as a sound-based approach.

My hypothesis is that children who are introduced to reading via a whole-to-part method quickly develop maladaptive neural patterns that are very hard, if not impossible, to completely eradicate. I believe that most whole-to-part readers are forever destined to read some words as whole, and this creates a drag on their reading fluency. It's like a computer with too many programs running simultaneously – the computer is seriously slowed down and may even freeze.

At this point, I must caution that my hypothesis does not appear to apply to about 25% - 40% of children – since some children manage to figure out the alphabetic principle more or less on their own. These children go on to become very good readers and are in a category of their own.

The evidence is overwhelming that early training really matters, since training of any kind produces real anatomical changes in the brain. Since this has been demonstrated with many different kinds of experiences, it is probably true of any training and we can be fairly confident that teaching children to read produces changes in their brains.

Training involves changes to the detailed structure of the pyramidal cells of the neo-cortex. These cells are large neurons that have a bush-like structure growing up out of them. The branches of the bush are called dendrites, and training elongates dendrites, produces more branches, and results in changes to their synaptic contacts with other cells. Changes like these tend to be permanent.

I believe that when children are introduced to reading via a method that looks at words as wholes, they are unlikely ever to become totally comfortable with print. Although it is possible to superimpose sound-processing (phonics) later on, few readers who were started with whole-to-part systems will ever lay down new neural patterns that will completely over-ride the old whole-word patterns.

It's like a child who develops rickets as a toddler because he doesn't get enough calcium. No matter how much calcium he absorbs later on, permanent damage has been done to his bones and he will never be able to run as fast as he should.

If you are responsible for introducing a young child to reading, please make sure that the student is introduced to reading via a sound-based (systematic phonics) method. It is true that some children will do fine no matter how they are introduced to reading, but the odds are not in their favour.

*(Malkin Dare is a reading tutor in Waterloo, Ontario. She wrote this article with the help of Case Vanderwolf, Emeritus Professor of Neuroscience and Psychology at the University of Western Ontario.)*