

## DYSLEXIA: How Reading Can Go Wrong

Understanding and recognizing dyslexia starts with the understanding that dyslexia, in its most simple form, is a neurological weakness in speech that can result in serious difficulties with reading. This requires understanding how reading relates to speech. As Mark Seidenberg states “We read with our eyes, but the starting point for reading is speech”. ( Language at the Speed of Sight,2017)

Neurologically, as a result of learning, reading and speech get bound together, at least they should be. They are bound together because of the alphabet. When the relationship is right, reading can almost work as well as listening to speech. This means that readers can read as fast and automatic as listening to someone talk. How to explain this has been a mystery for ages. The science of reading words has sought to find a theory that finally solves this mystery.

So, What can go wrong? In broad terms, speech evolved way before reading was invented. Because of the alphabetic writing system, reading brings an increased demand on this capability. Any weakness will show up in learning to read when this added demand is called on. This has ill effects on learning to read referred to as dyslexia. **Dyslexia is a neurological weakness in the capacity for speech, present in some individuals, that has ill effects on reading.** It interferes with reading at the place where reading and speech are joined by the alphabetic. The weakness is not a disorder. It is a result of a normal distribution of human capacity for speech that has ill effects on individuals at the lower end of the curve. The IDA definition of dyslexia refers to this weakness: “These (reading) difficulties typically result from a deficit (weakness) in the phonological component of language (speech)...”

In order to understand all of this, it is necessary to understand how reading, at the word level, has become bound to speech, the “phonological component of language”. Once a theory is found that explains this, an understanding of dyslexia becomes clear. This body of knowledge has also provided direction and a framework for research on reading instruction and treatment or prevention of dyslexia, the finer points of which can only be determined by research in instruction itself.

The seminar on “The Science of Reading Words and Dyslexia” examines how a theory of reading words has been developed and has helped to explain dyslexia. It also highlights some of the more important aspects of instruction that can be drawn directly from this science to prevent dyslexia.

The thesis of the seminar is that dyslexia is best understood within the context of research and scholarly study of the theory of reading words. The training is divided into three parts:

Part I: THE SEARCH FOR A THEORY and how it explains dyslexia, (two meetings)

Part II: WHAT BRAIN IMAGING RESEARCH has added to this understanding. (one meeting)

Part III: INSTRUCTIONAL PRACTICES THAT ARE AN OUTGROWTH OF THE THEORY: How research on both theory and instruction have coincided in identifying the most effective approach for teaching beginning reading and for meeting the special needs of those children experiencing difficulties learning to read, including dyslexia. (two meetings)

It will explain how a theoretical perspective gives added depth of understanding and reason for an explicit systematic approach to instruction in treating or preventing dyslexia and other learning difficulties.