

# ReadLS

by LSWorks



**ReadLS incorporates everything we know about reading, and addresses where things can go wrong**

# Thanks to advancements in research, we now know more than ever about what is required of our brain in order to master the skill of reading.

## ReadLS TARGETS:

### Auditory Processing

Auditory processing refers to the way the brain recognizes and interprets sounds, especially speech. Issues with auditory processing can cause problems recognizing slight differences between sounds in words, even when the sounds are loud and clear enough to be heard. People with auditory processing issues may find it hard to isolate the sounds in words, match sounds to letters or blend sounds into words.

### Visual Closure

The ability to identify a whole form or object from an incomplete outline or representation, or the ability to use visual clues in order to identify or recognise a symbol or object, when it is not visible in its entirety. It helps us to quickly process the information we receive from our surroundings, owing to the fact that our visual processing system does not need to analyse every single detail in order to be able to recognise what we see.

### Decoding and Encoding

“Children are wired for sound, but the print is an optional accessory that must be painstakingly bolted on.” Steven Pinker, (Wolf, 2008, p 19). Literacy is, at its base, the encoding, decoding and understanding of language. Decoding of phonemes is the root of reading, and encoding of phonemes is the root of writing.

### Timing

With timing, We are able to coordinate our “looking” and “listening” in order to pay attention with both systems simultaneously, while also being able to use the timing between these sensory systems to develop an adequate working memory span for the comprehension of reading. Inner timing between the senses is required in order to truly read with fluidity, rhythm, and automaticity.

### Visual Processing

Visual processing and visual attention refers to the number of distinct visual

elements (such as letters) that can be simultaneously processed in a multi-element array (such as on a page of text). Studies show that visual attention span capacities account for a substantial amount of unique variance in reading.

### Executive Function

Executive function (EF) is an umbrella term that encompasses the set of higher-order processes (such as inhibitory control, working memory, and attentional flexibility) that govern goal-directed action and adaptive responses to novel, complex, or ambiguous situations. Executive function is responsible for: paying attention, organizing, planning and prioritizing, starting and completing tasks, understanding different points of view, regulating emotions and self-monitoring.

### Phonological Awareness

There is strong scientific consensus that emphasizing print-to-sound relationships is critical when learning to read alphabetic languages. Phonological awareness allows us to attend to, discriminate, remember, and manipulate sounds at the sentence, word, syllable, and phoneme (sound) level. Phonological awareness is important as a precursor to decoding.

### Visual Sequential Memory

The ability to recall and reproduce a series of visual stimuli, including letters, shapes, numbers, symbols and objects, in a specific sequence. Visual sequential memory is necessary for identifying the ordering of letters in words, and words in sentences. It is part of the visual decoding process in reading and the encoding process in spelling. “The eyes look and the brain sees.”

### Ocular Motor Control

The ability of both eyes to work smoothly and efficiently when tracking a moving object or looking from place to place. The motor neurons controlling the muscles have to coordinate to produce desired eye movements. The inability to do this effectively can lead to difficulties with reading, such as

loss of place, skipping lines, skipping words and lack of fluency and speed.

### Working Memory

Also referred to as short-term memory, it is comprised of 3 key parts: the Central Executive (sends data to the subsystems), the Visuospatial Sketchpad or inner eye (stores and processes information in a visual or spatial form), and the Phonological Loop (deals with spoken and written material). Working memory is a system for temporarily storing and managing the information required to carry out complex cognitive tasks such as learning, reasoning, and comprehension.

### Morphology | Word construction

Morphological awareness is explicitly thinking about the smallest units of meaning in language, which are called morphemes. These units include root words that can stand alone as words, prefixes, suffixes, and bound roots, which are roots that must have a prefix or suffix added to become a word.

### Multi-Sensory

Multi-sensory activities provide needed scaffolding to beginning and struggling readers and include visual, auditory, kinesthetic, and tactile activities to enhance learning and memory.

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