The contributing elements needed for reading

Reading is an extremely complex process. It involves many different smaller skills, all of which have to function, be integrated together and be efficient to allow the smooth transition of icons on paper into a meaningful movie in the mind.

Many of the eye based skills listed overleaf, use fine motor muscles. Often, a child may not have control over their gross motor muscles and their resulting movements and so we need to address these gross motors before progressing onto the fine motor muscles that control our eyes and pencil grip.

Do not be surprised, if during the Full Visual Assessment the client is asked to hop, skip and control arms and legs. It is surprising just how many individuals are not symmetrical and have no idea where they are in space, or even where their own body part are!

These are the building blocks of child development often missed if the child did not crawl in infancy.

Thought for the day..

Reading involves 3 million impulses per millisecond, two thirds of which are visual allowing abstract thought and intelligence.

Eyes don't tell people what to see, but people tell eyes what to look for!

There is more to reading that meets the eye!

What kind of Optometrist do I need?

The Optometrist you need to visit is a professional interested in helping patients improve the functioning of their entire visual system. These specialists, spend years in post-graduate education learning how to best help their patients achieve their goals.

Not all Optometrists choose to become involved in providing extensive visual skill assessments. To help you make sure that your Optometrist is someone who promotes vision care, directed at your whole visual process, you may want to discuss the following questions with them or their reception staff:

- 1. Do you provide school or work-related visual perception tests?
- 2. Do you provide a full series of near point vision tests?
- 3. Do you provide full vision care and vision therapy in your practice or, will you refer me to someone else if necessary?
- 4. Will you see me again to determine my progress?

With this information, you can then feel confident that your vision needs will be addressed by your Behavioural Optometrist.

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Splinter Skills for Reading



Visual skill	What is does	The result
Accommodation	Focussing the text to make it clear	Is it clear? Reduces fatigue
Accomodation /convergence ratio	We need the text to be clear and single AT THE SAME TIME otherwise the reader has to choose between clear OR single	Clear and single at the same time? Providing comfortable reading and a change of posture
Adaptation	To new postures, fonts and reading distances	Flexibility of the entire visual system
Attention/Intention/Alertness	Paying attention to the target	Engage with it. Concentration
Automaticity	Performing without effort	Enables enjoyment
Central/peripheral balance	Using sideways vision to find the end of this line and the beginning of the next line of text	Avoids skipping lines/words
Convergence	Pulling the eyes together to make the text single	Is it single? Clarity
Discrimination	Tell the difference between similar shapes	Is it a square or a circle, m or w, s or z?
Exploration	Ability to ask questions and learn	Inquisitiveness breeds intelligence.
Fixation	Be able to 'lock onto the word'	Looking long enough to process the content
Fixation Release	And to let go again!	To be able to move on
Flexibility	Maintain eye control in all situations	And reading positions
Functional field	Being able to absorb several words at one glance	Improves information flow thereby increasing reading speed.
Identification	What is it?	Recognition – needs a database to compare
Interpretation	Seeing with meaning	Understanding
Laterality	Knowing left and right	Confusing b and d
Light sensitivity	Sometimes referred to as Meares Irlen Syndrome. Some wavelengths of light (colour) cause visual discord while others give visual harmony	Calming background colours vs chaotic ones which causes the text to dance or swirl. Rivers of white space cascading through the text!
Localisation	Finding the word and pointing visual axis in correct position	Where is it?
Posture	Sitting at correct distance	Viewing text squarely and not on a slant
Recognition	Sitting at correct distance and angle	Spellings. Brain identifies the correct words when reading
Saccades	Ability to jump accurately from word to word	See where the eyes are travelling. Accurate eye movements improve reading speeds.
Scanning	Selective gathering of information	Speed reading. Improves ability to search in a block of text.
Sensory integration	Linking what is seen	With smell, touch and taste
Visual experience	123567what is missing?	Involves life experiences
Visual memory	Retaining and processing information	Associated images retained and recalled