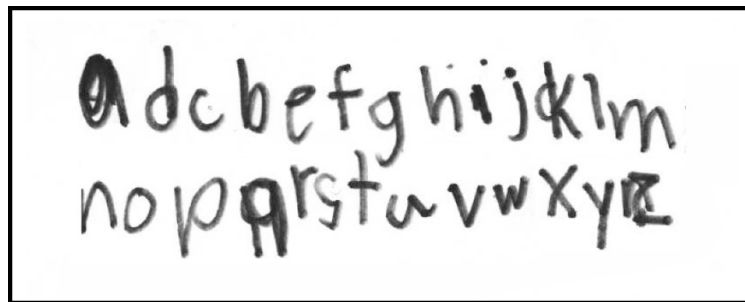


Why do they do that? - Reversals

*When a child writes a letter or number back to front,
this is called a reversal*



The reversal of letters and/or numbers is common in children who struggle. More rarely children will reverse words or whole sentences or write a mirror image of what they should be writing.

Regardless of what the child is reversing, it is caused by:

*A breakdown in the capacity to form relative
inter-relationships between visual cues*

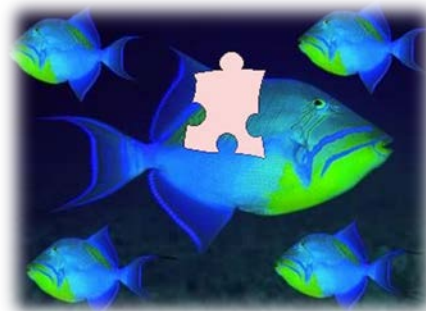
So what does this mean?

At the core of our capacity to process and integrate (perceive) sensory information is our capacity to relate pieces of information to one another. We have to be able to do this in order to construct a worldview that makes sense. Our entire life experience is the result of perception and, if we cannot connect the dots in a way that allows us to generate something that makes sense, our



performance will always be out of kilter with everyone else's, and we will be seen to struggle with performing everyday tasks.

If we think of a jigsaw puzzle, and how all of the pieces need to be fitted together in the correct way, so that the picture emerges. This is what we are doing at the most basic level within our perceptual performance, and we are doing this constantly, across all of sensory modalities. If, however, pieces are missing or put in the wrong place or the wrong way around, then the final picture will be distorted and will not make sense. Children who reverse letters and numbers are basically unable to know which way round the pieces in the puzzle go.



Our worldview is created by inter-relationships forming between individual pieces of sensory information.¹ Pieces of information, received through our different senses come together and patterns coalesce, which, as a child, we grow to recognise and name. If we cannot form inter-relationships in a fully functional way, the patterns we recognise and construct will always have some limitations. However, the issues that result from this are substantially more wide ranging.

Our capacity to recognise and construct patterns reduces and resolves the sensory overload very young children are typically in. They have yet to develop this ability to recognise and construct patterns and, consequently, have to deal with a lot more individual pieces of sensory information.

The topic of sensory overload is a rather large one so I am not going to go into it here. We just need to be aware that the greater the breakdown in the core of anyone's sensory processing and integration (perception), the more sensory overload they will be in, and sensory overload always leads to a decline in performance.

While our worldview is constructed from patterns, within patterns, within patterns, all of the actions we perform are also comprised of patterns; and this again speaks to the reciprocal relationship that exists between perception and performance. It is no mistake that we speak of motor patterns and speech patterns, etc.

To add to this, we need to be able to approach a task or situation from a multitude of different angles, and still know what they are, what is going on and how to react or respond effectively; and we need to be able to do this no matter what context something exists in. Kids who reverse letters and/or numbers struggle with orientating simple patterns of information relative to one another and, as we increase the complexity of these patterns, their struggles will also increase relatively.

The child looks at something and there is a breakdown in how inter-relationships are forming. They are unable to determine how to orient different pieces of the puzzle relative to one another, consequently, when it comes to orienting parts of letters relative to one another, they are unable to do this either.

¹ I have worded this sentence this way because it is patently obvious that it is not something we 'do.' Forming inter-relationships happens, without us 'doing' anything.

The child just doesn't know how the **C** of a **d** relates to the down stroke, **I**.

The question is, does it go here



Or here



There are also various other visual cues that are involved in forming letters, words and sentences, etc, which all have a relationship to one another, which these children are invariably unable to understand or use. These include the lines on the page, the halfway point between the lines on a page (these are often present in the form of dotted lines for children just starting to form letters), sides of the page, the end of a sentence relative to the edge of the page, spaces between letters, spaces between the tops of letters on one line and the bottom of the letters on the preceding line, etc.

Over time some children do work out how to use various cues in order to stop reversing letters and/or numbers, however, the issues in the core of our functional performance, which cause this issue in the first place, seldom exist on their own. So, while they may stop reversing letters and numbers, they may well continue to struggle in other areas.

If you would like to know more about the Visual Perceptual Therapy, and how childhood struggles can be corrected, you can visit the website www.visualperceptual.com or contact me via info@visualperceptual.com The Visual Perceptual Therapy is available all around the world, via Skype.

Natoya Rose
Occupational Therapist

*With that, I would like to welcome you to my world,
the world of visual perceptual performance*

