

## THE SPEECH AND LITERACY LINK

I have written recently about phonological awareness deficits which can result in reading and writing difficulties. Today I wish to discuss the link between difficulties with speech sounds and literacy. Many children we see are unable to say certain sounds in words. For years, people believed that all of these children with speech sound errors were at risk for phonological awareness deficits and associated literacy difficulties. Recent research has shown us however, that some types of sound errors put children more at risk for reading and spelling problems than others.

Speech difficulties tend to fall into two major categories (1) articulation errors and/or (2) phonological errors.

1. A number of children that we see have difficulties producing certain sounds and need to learn how to make them. These errors are termed 'articulation errors' and the most well known example is the 'lisp' where a 'th' sound is substituted for an /s/ sound (e.g. 'thock' for 'sock'). **These errors have a limited impact on the child's speech intelligibility therefore most of what the child says can be understood.** This type of speech problem is not often associated with literacy difficulties. However, professional help is always advisable as it is unlikely the child will grow out of the sound error if they are older than the ages outlined in the table below.

AGE at which 75% of children can pronounce sounds	SOUNDS
3 years	b, p, m, w, h, ng, n, t, d, g, y
3 ½ years	k and f
4 years	l, sh and ch
5 years	r

6 years	v
7 years	th

2. There are a number of children that can make all the sounds of English in isolation, but when it comes to putting those sounds into words, the child may have great difficulty putting the correct sound in the right place in the word. These types of errors are called 'phonological errors' and children with a phonological delay or disorder have often mislearned whole patterns of speech. **It is these children that are most at risk for literacy difficulties.**

These mislearned patterns include:

Final consonant deletion	this process involves leaving off the end sounds of words (e.g. 'bow' for 'boat' and 'sho' for 'shop')
Fronting	this process involves sounds that we would normally make in the back of our mouth being made in the front of our mouth (e.g. 'tup' for 'cup' and 'dirf' for 'girl')
Voicing	this process involves making the quiet (voiceless) sounds into noisy (voiced) sounds (e.g. 'dap' for 'tap' and 'big' for 'pig')
Stopping	this process involves making the long sounds in English into short sounds (e.g. 'bit' for 'fish' and 'dip' for 'zip')
Weak syllable deletion	this process involves leaving out the softest part of the word (e.g. 'ephant' for 'elephant' and 'raffe' for 'giraffe')
Initial consonant deletion	this process involves leaving off the first sound of words (e.g. 'ip' for 'ship' and 'ose' for 'nose')
Assimilation	this process involves changing a sound in a word to match another sound in the word (e.g. 'gog' for 'dog' and 'lellow' for 'yellow')

	'yellow')
Consonant cluster reduction	this process involves simplifying a blend such as /bl/ or /str/ to one sound (e.g. 'dar' for 'star' and 'nake' for 'snake')

These children may display only one or a combination of these patterns resulting in speech that is very difficult to understand. If your child is over the age of three years and still displaying some of these patterns it is advisable to see a speech pathologist.

The great news is that a speech pathologist can diagnose what type of speech sound errors your child is making and also assess whether your child is at risk for phonological awareness deficits and future literacy difficulties.

At Tyquin Group Speech Pathology we routinely screen children with speech sound errors for phonological awareness deficits when they are in the latter half of their preschool year. Early intervention is the key to prevent struggles with reading and spelling.