

Rhythmic Learning for speech, language and literacy

The Key report of 2016 highlighted poor speech development, as a growing problem with entrants to Reception. The reasons are many, but certainly not helped by noise levels experienced in the home from phones, tablets, TV, radio, games consoles etc.

Younger generation parents who did not grow up with traditional stories and rhymes simply do not realise the importance of such interactions with their children. They can easily be dominated themselves by social media, thereby limiting conversation with their offspring and failing to help them develop awareness of speech sounds and word patterns.

Words form their own beat patterns, which can be reinforced through clapping, moving and playing beats on instruments. The most detailed research on this comes from Professor Goswami of Cambridge University. Her reports are really complex and dense, but a summary such as the one in Psychologist magazine Feb 2013, Vol 26, provides a helpful introduction: -

Children with dyslexia find it difficult to hear speech rhythm and speech timing, and also have difficulties in perceiving musical rhythms. These difficulties in timing could explain why dyslexic children struggle with phonology (the sound structure of words) across languages. But music and poetry may also help dyslexic children to improve their rhythmic abilities.

Other key points -

Prosody (strong and weak syllable 'beats') is part of the hidden structural glue that makes individual speech sounds into recognisable words. Prosody, however, is not represented in the writing system for English. Individual differences in perceiving patterns of beat distribution, in both language and music, are intimately connected with reading development and dyslexia.

Children and adults with dyslexia were much more erratic than controls in tapping in time with a metronome at 120 bpm (Thomson et al., 2006; Thomson & Goswami, 2008). Across languages, speakers produce stressed syllables at the rate of approximately this same speed (2 per second). Hence one logical possibility is that the dyslexic brain finds it difficult to 'entrain' to rhythmic input at this temporal rate.

Our data suggest that children with developmental dyslexia are ‘in tune but out of time’. Rhythmic entrainment difficulties may be at the heart of developmental dyslexia.

We totally agree and support Dr. Goshwami in her findings and comments about Prosody. However, we believe it is necessary to break down and further define ‘strong and weak syllable beats’.

There are 3 possible ways in which a syllable may be perceived as stronger: -

- a. Strong by pitch – a syllable can be emphasised by speaking much higher or lower in pitch
- b. Strong by volume – a syllable can be emphasised by speaking much louder than others in the word
- c. Strong by duration – a syllable can be emphasised by extending the length of the vowel sound

In our opinion the emphasis through duration is by far the most common, most important and easiest to ‘train’. It is the most fundamental building-block of early speech, which is why duration is the main concept we explore in Rhythm Fun games.

Rhythm Fun games are designed to work on the above elements, through rhythmic entrainment activities, linking words with regular beat patterns.

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