



PhD student Emily Harrison is using her passion for literacy to help unlock the potential of children.

Literacy is the combination of reading, writing, speaking and listening skills we all need to fulfil our potential and a topic that researchers at Coventry University's Centre for Psychology, Behaviour and Achievement have been interested in for a number of years.

Most recently, PhD student Emily Harrison has been investigating the reading element of literacy, focusing on the use of phonics. Phonics was introduced by the Department for Education for all English schools to use as their reading system. It requires children to blend common sounds into words and encourages children to sound out words rather than recognising the whole word and reading it for meaning.

Emily explains: 'The use of phonics in teaching children to read has been open to a degree of controversy. Phonics doesn't work for everyone and it's important for teachers and schools to recognise this and try to find different approaches. My undergraduate research focused on the relationship between various reading skills and sensitivity to another type of phonology known as speech rhythm. This includes the rhythmic elements of speech, such as stress, intonation and timing, which accompany the segmental elements that children are taught about in their phonics lessons. The relationship between speech rhythm and reading has been well supported, but there is little reference in the literature to any interventions which target speech

A RIGHT WAY TO READ?

*According to the National Literacy Trust, one person in six in the UK is held back by poor literacy skills which compromise employability, health, confidence and happiness.**

rhythm as a possible way of enhancing literacy skills.' This different approach attracted the interest of grant makers, the Leverhulme Trust who agreed to fund a PhD research student to investigate the issue. Emily applied and was successfully appointed to the role.

Emily said: 'I saw this as a really exciting opportunity to investigate this approach further. Whilst phonics is hugely successful for some children, for those who it doesn't work well with, there are no alternatives. The opportunity of finding a new solution was something that really appealed to me.'

There is evidence which shows that poor readers have poor sensitivity to speech rhythm, suggesting that if we can improve speech rhythm sensitivity, reading ability should also improve. Emily wanted to investigate the design of a speech rhythm based intervention which might help improve reading ability. Focusing on the themes of stress, intonation, and timing, Emily produced a series of picture flash cards and corresponding audio stimuli, and simple tests which would help the users to associate the sounds of the words with the images and remove the emphasis on actual written words.

Emily conducted an initial study with 73 school children aged between 4-5 years. The children were divided into three groups; one who were taught using the speech rhythm intervention, one who were taught using a traditional phonological awareness-based intervention, and one control group who completed a Maths intervention. Emily also replicated the study with a group of older children aged between 7-8 years. With the older children, Emily wanted to concentrate particularly on the children who were struggling with their reading. She conducted an initial reading assessment of the group and recruited 49 children who were falling behind. Again, these children were randomly allocated to one of three interventions.

Emily worked with the children for 10 weeks and recorded their ability across a number of areas at the start of the study, and at the end. She looked at reading ability, phonological awareness, and speech rhythm sensitivity, together with other measures of literacy skills.

In both age groups, the children who received training on the speech rhythm-based intervention showed significantly higher gains in their reading ability than children in the control group. Emily said: 'The results were very pleasing, particularly the differences the work made with beginning readers. Rhythmic interventions have recently been used in a limited number of studies with established readers but this was the first time the approach had been adopted for children who have not already been exposed to reading tuition. It's a really novel area and I'm excited to be part of it.'

Emily was also encouraged by the feedback she received from the teachers involved in the study. 'It's interesting to find out how many teachers are pro-phonics and happy to stick with the current approach and how many are open to new ideas. There is no 'one-size-fits-all' approach to learning to read which is why I'm surprised that the curriculum isn't more flexible.



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Many of the teachers had never heard of speech rhythm, so it was great to be able to share this approach with them. Many of them also said they think a combination of the two approaches would help in the classroom and some said they would be happy to continue to use the elements I had showed them.'

Emily started her PhD in 2011 and completed earlier this year. 'I have absolutely loved studying for this PhD and I'm looking forward to what happens next. This research is really novel and it's a real breakthrough. It's so rewarding to think that through my work, I may have found a way of applying a different approach that can help children struggling with the concept of phonics.' Emily is in the process of publishing her work and has already written two academic papers reporting the results of her studies, and a further paper about what makes a good intervention. Emily is currently teaching both undergraduate and Master's level students in psychology and would be happy to pursue a career in either research or teaching, or preferably a combination of both.

