

The Trainertext Method: a visual track to literacy

David Morgan, CEO of DM Ed, and his team have taken an "implicit" approach to reading instruction, known collectively as the Trainertext Method. The key to this innovative computer-based method is visual mnemonics, which give learners the tools to decode any word alongside visual guidance.

hy is learning to read so difficult? This was the milliondollar question that inspired David Morgan, Mechanical Engineer and Education Specialist, to develop a computer-based reading intervention programme devoted to helping children read through intuitive visual processing. "For many children, learning to read phonetically is hard - to the point that reading often turns into an immense struggle", says Morgan, who can relate to this, having experienced difficulty himself as a child. In the worst case, children get in the habit of guessing or memorising instead of learning how to decode, which can be fatal to their literacy development.

A NEUROLOGICAL PERSPECTIVE

Taking an entirely different approach from the traditional phonics that most education developers and publishers subscribe to, Morgan and his team began by studying the systems of the brain to determine how to tap into their strengths and facilitate a pupil's literacy learning curve. They discovered that many memory processes are visual, and in fact, nearly a third of the cortex is devoted to visual processing and storage. Morgan used this neurological knowledge as a basis for developing a system now known as Trainertext.

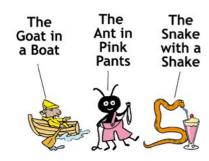
At the core of this system is the use of visual mnemonics – cues that work by associating an image with characters or letters whose name sounds like the item that has to be memorised. "Text is initially hard for children because it is abstract. So,

we started to connect memorable images to each letter, which made it much easier for the children to remember them." After long periods of research and development, Morgan and his team found that they could harness the same visual prompts to assist the decoding process.

UNHOOKED ON PHONICS

According to Morgan, phonics rules simply do not work. Conventional phonics is an explicit instruction method, which teaches the "rules" of Grapheme-Phoneme Correspondences (GPCs). It involves linking a particular sound (phoneme) to a particular letter or group of letters (grapheme). The problem with this technique is that the brain finds it difficult to recollect all the letter patterns in relation to sound. The English language is particularly tricky, as it is full of spelling and pronunciation irregularities. On average, each of the 44 phonemes in English can be linked to nine different graphemes, and each grapheme has over three different possible sounds.

The Trainertext Method, on the other hand, is an implicit instruction process that draws on the natural strengths of the learner. "The second key neurological pillar of our approach is that reading is a skill that we perform in the subconscious, 'procedural' memory", clarifies Morgan. This is a crucial point given the fact that skills are acquired in a different way to 'declarative' conscious processes, whereby knowledge requires learning "rules" to solve complex maths equations, for example. Morgan equates reading to skills like walking, talking and riding a bike, which are implicitly learned through guided practice – suddenly, the



gas

The Horse on the Course Pluto

The Whale Octopus with Who Purple Knocked Pigtails a Puss

was

An example of how Trainertext helps with tricky words

subconscious takes over and it all clicks into place.

TODAY A READER, TOMORROW A LEADER

Children with reading delays who follow a regime of around 60 to 90 15-minute Trainertext sessions have demonstrated significant improvement and can read normal text without the images. Progress in spelling typically starts to show after around 120 to 150 lessons. Additional sessions build confidence and fluency, and in some cases even put pupils at the top of the class for reading. "The conventional approaches to reading have never achieved more than 85% success. When you think about it, that means one out of seven children has gone through the school system unable to read."

The Trainertext Method has even shown positive results on children with learning disabilities. In developing the programme, some neurological complications surfaced that thwarted reading development – in children with weak cerebellar function, for instance. Such children have difficulty with eye tracking and tend to be easily distracted or show signs of dyspraxia. Weak magnocellular pathways, which prevent a child from being able to lock both eyes on the same focal point, were another complication that was detected. Morgan and his team tracked eight areas of neurological challenges connected to the reading process and found that with the right exercise regime, such complications can be improved. Their system was found to build up a child's eye tracking in about ten days, instead of the six months or



regimes.

THE DM ED GUARANTEE

What began as a research project in 2004, has flourished into a successful company. DM Ed now retails three DM Reading products for learners of all ages and situations – there is even a programme for adults.

more required by conventional support

DM Ed is all about giving everyone the gift of literacy. Understanding the devastating effects illiteracy can have on a person's life, the company offers an unconditional refund promise to anyone not satisfied with the programme. As Morgan says himself: "Far too many people have been held back by weaknesses in their literacy. We want to change that forever."

Understanding the devastating effects illiteracy can have on a person's life, DM Ed is all about giving everyone the gift of literacy





How open are school officials and teachers to computer-based intervention in general?

I think that five years ago you would have found some resistance to the idea. But that is now changing. Teachers are seeing computers as an assistive technology rather than a threat to good classroom practice. And the level of technical ability amongst teachers is inevitably rising too, just as with all of us.

Has it been difficult to integrate DM Reading Programmes into the education system?

As an intervention system we have always been to one side of the curriculum. Our role is to get students back on track with the curriculum. So we have never found a problem with integration. Teachers just want a solution to this critical issue, because it blocks all real progress from the age of nine onwards. The children are then reading to learn, rather than learning to read.

How does the Trainertext Method compare with other computer-based reading intervention programmes?

Every other programme we know of uses one of the three conventional methodologies, which have been around for decades or centuries (whole word, classic phonics and multisensory). We are using a fundamentally different approach to get the phonics working for a child through the visual mnemonics.

By using this new implicit instruction process for the decoding, Trainertext is a much more comfortable and effective experience for the learner. It works with the natural learning patterns of the brain.

DM Reading programmes are targeted at learners with reading delays and disabilities, but does it have the potential to enhance the skills of those who are already strong in reading?

It is true that most of our development has been mainly done with struggling readers. But Trainertext makes the process much easier for any learner. So we have just released a system for much younger children, with no known difficulties, and an app for adults. Our task over the next eight years is to get Trainertext into the hands of every child learning to read.

We also work with strong readers who struggle to spell. They are almost always sight-word readers and when we teach them to decode, their spelling drops into place quite easily. Memorising spelling lists is like pushing water up a hill for those children!

What is next on the agenda, foreign languages perhaps?

Yes, absolutely. Our next major target is to release versions in Spanish, Arabic and Hindi. We would then be able to reach nearly two billion poor readers. We have 15% of our children failing to learn to read, but sadly that is pretty good compared to most of the world.

From a scientific perspective, what are the benefits of computerbased learning tools with gaming features?

It's a funny thing, that people sometimes feel learning through play is somehow lightweight. That view is neurological rubbish. The brain learns when it is engaged. So boredom is the death of learning and all good teachers entertain. I believe that emotion and interaction are the gold seams of accelerated education. I learned double entry bookkeeping from John Cleese, the comedian. He made it a lot easier, because I was awake through the class.

We run very short lessons, of no more than fifteen minutes, and we always engage the learner to the maximum of our ability, with some form of entertainment and/or challenge. If we can get a bit of toilet humour in there too, we definitely will. For neurologically sound reasons, of course.

Detail

RESEARCH OBJECTIVES

David Morgan's research focuses on developing a fresh approach to the process behind learning to read, for both children and adults. Within this, he hopes to develop a system that works with the brain's learning style and engages the brain through entertainment.

RESEARCH PAPER

http://onlinelibrary.wiley.com/doi/10.1111/1467-9817.12107/full

FUNDING

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- Google Campus

• Startup Leadership Programme

RIO

David Morgan is the founder and lead educationalist of DM Ed. His research focus has been literacy partly because he himself struggled to learn to read. David's first degree was

in mechanical engineering. He has a Master's degree in Education. David also helped establish the Shannon Trust, a prison literacy charity.

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