Why do some children learn to read without explicit teaching?

Jennifer Buckingham



Anne Castles



It's not magic – children who learn to read without explicit instruction are actually employing specific reading behaviours.

Reading and explicit teaching

Learning to read in an alphabetic language such as English is a complex task and, for most children, requires explicit teaching. In particular, *an extensive body of research* has demonstrated that, in the initial stages of learning to read, children benefit from systematic teaching about the connections between letters and sounds, known as phonics. Phonics knowledge allows children to work out how to say printed words for themselves and, if those words are in their oral vocabulary, to understand them. This initial learning provides the foundation children need to begin to read on their own, and so further build their fluency and text comprehension.

Potentially challenging the idea that basic reading skills must be taught explicitly are reports of children who learn to read even before commencing school, and who do so without direct teaching and with apparently little effort. How do these children achieve this, and what implications does it have for how reading should be taught in schools? To answer these questions, we need to consider these children's reading behaviours against the backdrop of what is known about how the brain learns to read.

How the brain learns to read

An extensive body of research has uncovered the cognitive and neural pathways of learning to read. For beginning readers, the route to the meaning of written words is via a phonological (sound) pathway in the brain. Children decode the phonology of written words using their knowledge of letter-sound relationships and, via this phonology, they access meaning of the word if it is in their vocabulary. Indeed, even when skilled readers encounter novel printed words, as we all do frequently (e.g. listicle, mansplain), they must revert to using this phonological pathway.

When a word has been viewed and read many times, it becomes stored in long-term memory and the reader can then retrieve its meaning directly from print, without going via the phonological pathway. They have a stored memory of the spelling of the word in their brain that allows them to recognise it rapidly regardless of its size, font, case, or colour. Fluent recognition of words via this pathway reduces cognitive load, allowing the reader to focus on comprehension in the broader sense of both literal and inferential meaning.

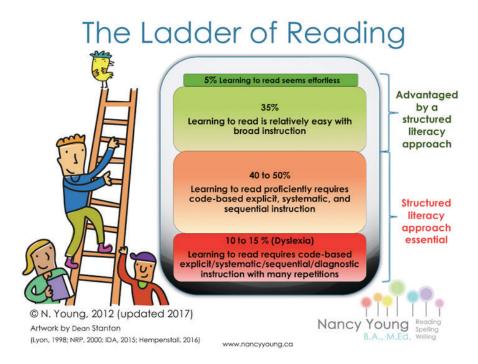
The ability to bypass the phonological route to reading, and read in this effortless way, is the end result of a complex learning process that is easier for some children than for others. However, irrespective of the ease with which different children learn, the basic acquisition process is the same.

Learning to read without explicit teaching

How, then, does the reading of a child who has not received explicit instruction align with what we know about how the brain learns to read, and how reading should be taught? The answer to this depends on the kind of reading behaviour being displayed by the child:

One frequently observed behaviour is that pre-school children begin to spontaneously name individual printed words. Typically, these are words that they see frequently in their environment, and that have a positive association: 'McDonalds' and 'Pepsi' are oft-cited examples! But it doesn't take long to establish that these children are usually not really 'reading'. Rather, they are recognising the words much as they would pictures. Evidence of this is that, if the letters of Pepsi are superimposed onto the McDonalds logo, these children will continue to read it as 'McDonalds'. And if the words are printed on a page in a different font (McDonalds), or case (PePsI), the children will no longer be able to read them. In contrast, as we know, skilled reading involves recognising words accurately and fluently regardless of their surface form. Thus, this early interest in naming words, referred to as logographic reading, cannot be considered an example of reading without explicit teaching.

Some children continue with this *logographic strategy* even once they commence school, especially if they do not receive sufficient explicit phonics instruction. They might, for example, identify yellow based on it having 'two sticks in the middle', or look because of



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its 'pair of eyes'. But this strategy will not serve them well once they need also to read follow and boot. Such children often experience problems in the middle years of primary school, when the books become more complex and exceed the size of their bank of memorised words. They then need to be taught phonics so they can decode and *read the many new words* they will encounter throughout their education.

A second observed form of reading without explicit instruction is when young children apparently 'read' books with which they are highly familiar, and which have been read aloud to them many times by their parents or caregivers. Such children can give a very strong impression of being able to read fluently, saying all the words correctly, and turning the pages at exactly the right point. However, once again, in most cases, these children are not actually reading, but rather are reciting the book from memory. Again, some simple tests will reveal this: ask the child to read a random extract of the text, printed on a separate page. Or ask

them to read a book of a similar level of difficulty, but one that has not previously been read aloud to them. If the child struggles, this reveals once again that they are not really reading,

but rather are using their excellent memories to mimic the reading process.

A third category of reading behaviour genuinely does represent early reading, consistent with what we know about how the brain reads. A small proportion of children pick up the basic skills of reading before starting school, and with relatively little assistance. Typically, they demonstrate knowledge of letters by the time they are two, and then quickly move on to recognising words and reading text. There have been a number of investigations of these so-called 'precocious readers', and what is clear is that the way in which they read is no different from that of typical readers. They are adept at phonics, and can read words accurately and

vords accurately and fluently, across case, font and size. So, in effect, these children have been able to teach themselves the

essential foundation skills of reading: they have not bypassed them but have just acquired them quickly and with little assistance.

This final group of children are very much in the minority. Nancy Young, in her Reading Ladder, estimates that such children represent no more than 5% of children.

Why all children should receive explicit phonics teaching as part of a comprehensive literacy program

Systematic, explicit phonics instruction helps children to make the neurological connections between the areas of the brain that are devoted to visual (writing), phonological (sound), and semantic (meaning) processing. Some children form these neurological connections quickly, while others require more intensive instruction and repeated exposures. A very small number of fortunate children are able to make the connections on their own, without explicit teaching.

When children begin school, we cannot predict with sufficient accuracy which children will struggle to learn to read without explicit, systematic phonics instruction and which will not. Therefore, the most ethical and prudent action is to provide all children with *the most effective teaching methods*, based on the best available evidence, thereby accelerating the progress of all children and minimising the likelihood that any child will struggle to learn to read.

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Jennifer Buckingham is Director of Strategy and Senior Research Fellow at MultiLit, and founder of the FIVE from FIVE project. She has published numerous reports and articles on reading instruction and has provided advice to state and federal governments on the introduction of a Year 1 Phonics Check. Jennifer is a board member of the Australian Institute for Teaching and School Leadership.

Anne Castles is Distinguished Professor of Cognitive Science and Scientific Director of the Macquarie University Centre for Reading. She is a Fellow of the Academy of Social Sciences in Australia (FASSA) and serves on the Editorial Boards of several journals including Scientific Studies of Reading, Cognitive Neuropsychology and the Journal of Experimental Child Psychology. She served as President of Learning Difficulties Australia in 2017-18.