
The Reading Process and 'The Big Six'

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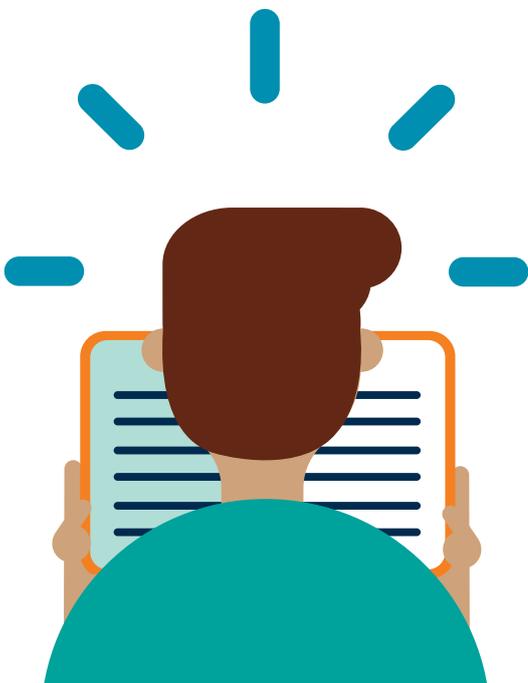
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Illustration by Kanae Sato

Introduction

Learning to read is one of the most important outcomes of education. But reading is an incredibly complex process. It's underpinned by oral language skills and involves very specific skill development (phonemic and decoding strategies) and the application of comprehension strategies. In order to teach students to read successfully, educators need to understand the delicate ways in which these skills and strategies work together to meet individual students at their point of need.

Over the past four decades, numerous large-scale reviews of research into the effective teaching of these skills and strategies have occurred in North America, Britain and Australia. The aim was to provide solid, evidence-based guidelines for education systems⁷⁻¹². There's a compelling consistency in the findings that form the base of 'The Big Six' elements listed in this article.



ELEMENT 1

Strong foundations - Oral language development and early literacy experiences

Oral language is the foundation for learning to read¹⁻² and is related to overall reading progress in primary and secondary schooling. From birth, a child's experiences have an impact on their oral and written language skills. Children who are surrounded by rich and increasingly complex conversations have an overwhelming advantage in vocabulary development, in understanding the structure of language and tuning into the sounds of the English language. Oral language is important for both reading and writing, and children

need a strong vocabulary to understand a broad range of words; they require strong grammatical skills to understand complex sentences; and they require the ability to reason and infer so that the necessary links between information in texts can be made.

“The research suggests that core teaching practices and classroom environments must support a commitment to rich dialogue and conversations, in order to create strong foundations.”

ELEMENT 2

Early stumbling blocks - Phonological and phonemic awareness

Phonological awareness is a term that refers to the ability to focus on the sounds of speech instead of the meaning of speech. It's a continuous stream of speech that can be separated into individual words, that those words can also be broken up into syllables, and that those syllables are made up of separate, single sounds.

The most significant of these components for reading development is awareness of the individual sounds or phonemes, that is, phonemic awareness. A preschool child's phonemic awareness the single best predictor of their future reading ability, better than either SES or IQ²⁻⁷. Being able to blend and segment phonemes are the most crucial phonemic skills for reading and

spelling. But some children find it very difficult to hear the separate phonemes because the continuous nature of speech compresses them into a series of overlapping sounds (this is called co-articulation). Speech must be rapid, and nearly overlapping, to be understood. However, while making it easy for the listener, co-articulation disguises the underlying separate phonemes. To detect separate phonemes, the ability to 'pull apart' the process of co-articulation and hear speech as a series of separate sounds is required.

“If children can't hear the separate sounds, they can't relate those sounds to letters – an enormous stumbling block in learning to read and spell.”

The explicit teaching of the alphabetic code remains a key element of the Australian curriculum.

ELEMENT 3

Next steps - Letter-sound and word knowledge = comprehension

Once children understand that words can be broken up into a series of sounds, they need to learn the relationship between those sounds and letters – the 'alphabetic code'. There's no way to bypass this step in the reading process. An understanding of the relationship between sounds and letters that represent them (graphemes) is at the heart of reading an alphabetic language. This letter-sound relationship is referred to as the alphabetic principle, or more commonly, phonics.

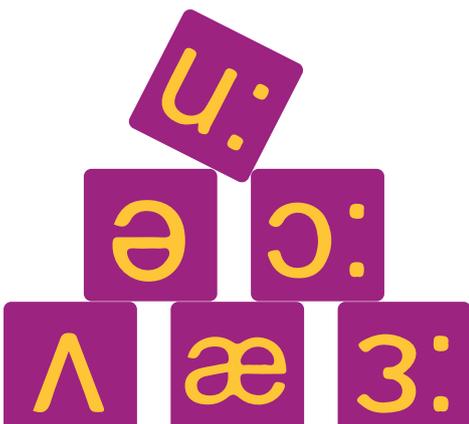


So how and when should you teach phonics?

Most teachers and researchers agree that phonic elements need to be taught at the beginning of a reading program. There's still debate around how and when they should be taught. Empirical evidence supports a synthetic approach to teaching phonics for beginning and struggling readers¹⁰⁻¹³. A synthetic approach teaches single letters and common letter combinations in an explicit manner, and in an order that helps with blending (synthesising) from the first weeks of formal schooling. The early blending component is critical and begins as soon as the children know letters that can be blended into simple vowel-consonant (vc) or consonant-vowel-consonant (cvc) words. As the letter-sound relationships are learned, they are practised in easily decodable text. This type of practice is beneficial to most beginner readers, but most importantly to readers who don't pick up these vc or cvc relationships quickly.

That's not to say the recommendations don't suggest reading other types of text. They suggest that children should be using their newly developing phonic skills with all types of texts and continue to have high-quality texts read to them.

Teaching 'letter-sound' relationships involves complicated elements like affixes, Greek and Latin roots, and the teaching of spelling rules – essentially word structure. Learning the structure of words at the syllable and morpheme levels helps with word recognition, spelling and vocabulary development. These elements of phonics can be taught in a more embedded or analytic way, because blending and segmenting skills are learned early, and are easily transferred. This more complex teaching can extend into middle and upper primary school.



There's another part of letter-sound knowledge – sight words.

While phonic instruction is necessary to help children become independent readers, it won't help them when they encounter irregular or 'sight' words such as said, was and saw. Unfortunately, these words are some of the most frequent words in the English language. These words must be learned so well that the words are stored in the children's visual memories (or mental lexicons) and are recognisable when reading.

“Quick retrieval of whole words from the mental lexicon is where comprehension starts, and the larger the pool of words in a child's mental lexicon, the better their understanding when reading.”

Sight words should also be taught explicitly and systematically, rather than attempting to teach them when encountered in text. The latter method means that children are trying to focus on one word among many, and in the context of a story – it's actually more efficient and easier for most children to learn these words separately.

And why is this all so important?

Well the goal of teaching letter-sound knowledge – both phonics and sight words – to the point of automaticity, is so that the student can instantly recognise words, and as a result, increase their fluency and understanding. When an unknown word appears in text, children will feel more confident if parts of that word are immediately recognised. This increases the likelihood that the whole words will be successfully understood, and eventually, these once unknown words become recognised instantly on sight. Reading comprehension starts with the immediate and accurate recognition of words, as this allows the reader to concentrate on the meaning of the words rather than on the actual decoding process.



ELEMENT 4

Early detection - The vocabulary gap

Although the relationship between vocabulary and reading comprehension was recognised many decades ago ¹⁴⁻¹⁷, it was the *Report of the National Reading Panel* ¹¹ that more recently refocused teachers' attention on the importance of the vocabulary and reading comprehension relationship.

Vocabulary is, for the most part, learned indirectly through encounters with the vocabulary (in the media, in stories, in conversations etc ¹³). Exposure to words in different contexts makes their meaning clear, and so the process of vocabulary building occurs. Different children have very different outcomes from learning this way. Some children start school as highly competent vocabulary users. 'Typically developing' children are able to absorb words easily. They find learning new words easy and immersion approaches will be successful for them. These children are more likely to acquire the skills of reading easily, and can begin to read for themselves and build an even stronger vocabulary. Other children, however, start school with small vocabularies and they're often unable to learn new words easily.

Those children who come from rich literate backgrounds and can read frequently are able to gradually learn the meaning of many new words. Children from less rich literacy backgrounds that aren't exposed to as wide of a vocabulary will be more likely to have difficulty learning to read, and less opportunity to use their own reading skills to develop their vocabulary ¹⁹.

“Fortunately, there’s now evidence that direct instruction is effective for vocabulary learning ²⁰⁻²², and can help children from less advantaged backgrounds to make substantial gains in their vocabulary.”

In fact, direct instruction of vocabulary has been found to add to the vocabulary growth of all children ²⁰.

ELEMENT 5

A research debate - Fluency

Fluency is a pivotal point in reading development – the point where all the component skills of learning to read are in action and energy can be focused on determining the meaning. The point where 'learning to read' transforms into 'reading to learn'. Fluency involves more than how fast a child can read: it also includes appropriate phrasing and intonation, which reflect comprehension of the material being read.

Fluency and comprehension have a symbiotic or co-dependent relationship: it's only possible to read fluently if comprehension is occurring. And if the reader isn't fluent then their comprehension will suffer. Children who read very slowly and haltingly are devoting most of their attention to decoding and word recognition, rather than the meaning of the words. This strains their working memory. They have no cognitive capacity remaining to think about what the text actually means. Memory limitations also mean that if a message isn't transmitted within a certain timeframe, meaning will be compromised.

A reading rate of at least 90–100 words per minute is required for reading comprehension¹⁸, a rate that usually develops by the end of Year 2 for simple text. Fluency comes about after extensive reading practise of independent level text. This is necessary to ensure that the skills can become automatised and the number of words that can be read instantly on sight increases substantially. So it's important that children can access motivating texts at their independent reading level to practise their developing skills. Although extensive independent reading is recommended to build fluency, one finding

from the National Reading Panel's review of research deserves discussion. The Panel could find no evidence supporting the effectiveness of encouraging independent silent reading as a means of improving reading fluency and comprehension for poor readers. This means that the common practice of Sustained Silent Reading (SSR) or Drop Everything and Read (DEAR) may not have the intended effect of developing the skills of poorer readers. Those students who can already read fluently usually enjoy this part of the school day immensely (as do their teachers!) but there has been no demonstrated effect for students who haven't already integrated the component parts of reading. Those precious minutes may be better spent with the teacher working with the students who can't read fluently, ensuring that the component reading skills are there. This is an important caveat. Independent reading must be accompanied by seven key practices for it to be effective within the classroom.

These practices include:

- sufficient time
- student choice
- explicit instruction around the reading process
- text variety
- text access
- teacher monitoring
- formative assessment
- substantive talk



ELEMENT 6

Comprehension

The ultimate goal of reading is comprehension. Being able to 'crack the alphabetic code', while essential for comprehension, isn't sufficient. Comprehension won't happen if children don't have a good understanding of the vocabulary in the text; the relevant background knowledge; familiarity with the semantic and syntactic structures that help predict relationships between words; and the verbal reasoning ability to help 'read between the lines'.

“Comprehension requires engagement with the text at a deep level, and an array of skills that go far beyond simple word recognition.”

Researchers have concluded that readers who gain meaning from text at different levels engage in certain reading behaviours and employ a range of reading strategies. Typically, good readers understand the purpose of their reading, the purpose of the text, monitor their comprehension and adjust their reading strategies based on the demands of the text. These high level strategies help with comprehension, and let the reader draw meaning from the text by identifying and remembering critical information, and understanding relationships and connections. Many children who have mastered the decoding aspect of reading don't develop comprehension skills easily. These need to be explicitly taught (especially to struggling readers) if children are to develop skills that will allow them to engage fully in society as literate individuals.

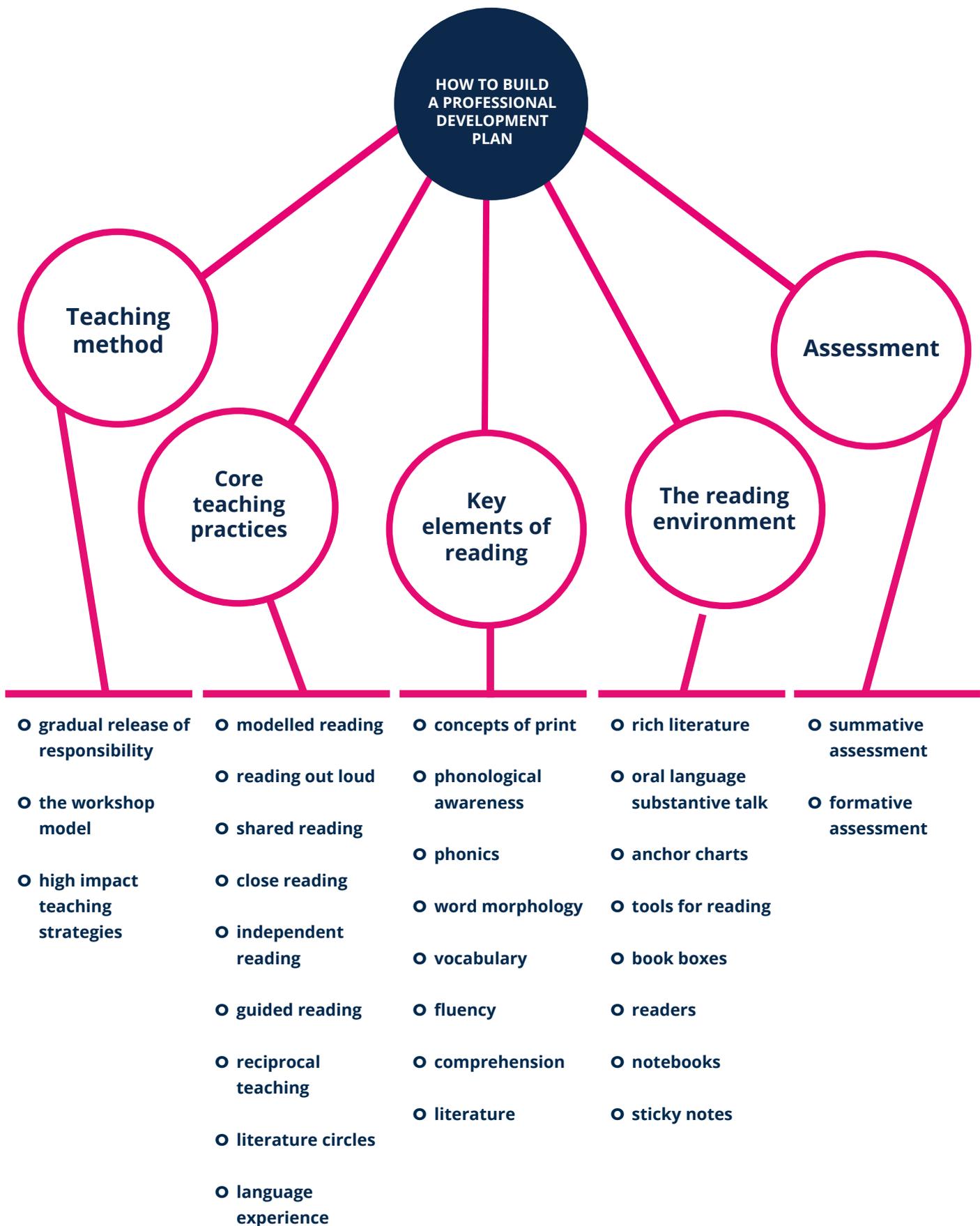
CONCLUSION

Reading is in equal parts a highly complex cognitive process and a highly important skill and educational outcome. Debate about how best to teach reading has preoccupied teachers, researchers and even legislators for many decades, but there's now overwhelming evidence that points us towards the critical elements of reading programs that are most successful with most children.

It's acknowledged that some children will learn to read no matter what method is used – these are the children who start school with the advantage of a wide vocabulary and regular and positive experiences with books and print. Nevertheless, it's the clear-cut conclusion of the major reviews into effective reading instruction that most children benefit from systematic, balanced and explicit teaching of each element of the Big Six. All primary school teachers need to become experts in reading instruction. By broadening the base of expertise of all teachers, more children are likely to benefit from quality first wave teaching, and the need for intervention down the line will be reduced. A consistent whole school approach, or ideally a consistent approach across regions and states, is desirable in providing the best outcomes for all students.



Schools must build a professional development plan for teaching Reading and it must address the following components. Each component has its own sub-set and the diagrams below serve to illustrate the complexity of the plan.



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