

Research into practice

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Paper 3 in the series
Understanding the reading process expands on research around *Phonics* as one component of 'The Big Six' that supports learning to read.



Phonics is the understanding that there is a predictable relationship between the individual sounds (the phonemes) of spoken language and the letters (graphemes) that represent those sounds in written language.

Phonics

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"Although the construction of meaning is the ultimate aim of reading, reading is built on the ability to swiftly and accurately translate printed symbols into their spoken equivalents."

(Gunning, 2006, p. 117)

Introduction

Phonics is the understanding that there is a relationship between the individual sounds (the phonemes) of spoken language and the letters (graphemes) that represent those sounds in written language. This understanding is sometimes referred to as the "alphabetic principle". An understanding of the alphabetic principle depends upon phonemic awareness – it is impossible to relate a letter to a sound, if the sound cannot be perceived. For more information about phonological awareness see **paper 1.2** www.decs.sa.gov.au/literacy/files/links/UtRP_1.2.pdf

While the English language system is difficult and complex, many words follow systematic rules, and most words have some regular letter-sound relationships that assist with reading. The alternative to learning the alphabetic code is to learn every word by sight – this quickly taxes the memory of early readers. Some children do begin to read by memorising all words by sight, but very quickly the burden on the memory is so great that the reading process stalls – and confused parents and teachers wonder what happened to the child who could read last year but cannot this year. This usually happens in about Year Two as the volume of words required to read age-level material rapidly increases. Because the child did not learn the letter-sound correspondences, or how to blend them together, he or she has no strategy to approach unknown words. Without alphabetic knowledge, independent reading is impossible.

The "mini debate"

The research evidence over the past five decades (e.g., Adams, 1990; Bond & Dykstra, 1968; Chall, 1967; NICHD, 2000; Snow, Burns & Griffin, 1998; Snow & Juel, 2005) has strongly concluded that the teaching of letter-sound relationships should be part of beginning reading programs. That particular debate appears to have been settled for most people. The continuing "mini-debate" centres on exactly *how* letter-sound knowledge should be taught. At least three different approaches to teaching phonics exist, with variations within them – and many teachers use a combination of methods. The following section will discuss the essential components of effective phonics instruction and examine the features of the different approaches.

Synthetic phonics instruction

The term “synthetic” refers to the process of synthesising, or blending individual sounds together. In synthetic phonics programs, children practise blending as soon as they know letter-sounds that blend together to make a word. This approach helps children understand very early how the reading/writing process works; that it requires blending together and pulling apart the sounds of the language. Common letter combinations, such as double letters, digraphs, and common patterns like *-ble* are taught in a similar fashion, with the focus on rapidly teaching children how to blend individual or combination sounds together to make words.

Synthetic phonics programs are designed to be both *explicit* and *systematic*, two terms that appear repeatedly in the research findings to describe the characteristics of an effective phonics program. *Explicit* instruction is designed to *focus children's attention on the precise target of instruction*. This might entail holding up a large lower-case letter such as “m”, directing children's attention to it and saying “*This sound is /m/. Say /m/. What sound is this?*” This might be accompanied by an action that acts as a mnemonic. When children can articulate the sound correctly in response to the presentation of the letter, a series of interactive activities follows during which the children have many opportunities to see the letter and say the sound, building up strong neural pathways between the two so that when the letter is seen, the sound is automatically associated with it. The letter-sound would then be blended with others that the child already knows to create words, using magnetic letters. Research by de Graaff et al (2009) found that initial practice of a small set of words consisting of a few letters makes it easier for beginning readers to understand the alphabetic principle, rather than exposure to a large number of words.

Systematic instruction recognises that certain skills or concepts need to be taught before others, and therefore skills are taught in a particular sequence. Given the complexity of the English language, it is important that letter-sound knowledge is introduced systematically to ensure that all the patterns are taught. This is particularly important for beginning readers who do not have the benefit of extended exposure to print material before school. In synthetic phonics programs, the order in which letters and letter combinations are taught, and the completeness of the knowledge taught, meet the “systematic” criterion. While different synthetic phonics programs use slightly different orders, they essentially teach common and therefore most useful combinations first, in an order that promotes blending. In several synthetic phonics programs the first six letters to be taught are s, a, t, p, i, and n – letters that combine in various ways to make many simple consonant-vowel-consonant (cvc) words.

High frequency sight words are taught gradually and simultaneously with the expanding letter-sound knowledge. Sight words are taught in the same explicit manner as the letter-sound relationships providing exposure to the word, repeated opportunities to see and say the word together, and many opportunities to practise them in connected text. This builds essential word knowledge and attunes the children to the fact that not all words can be fully decoded.

An important part of synthetic phonics programs is the use of decodable books – specially constructed short texts made up of words that the children can decode and high frequency sight words that children have been taught simultaneously. This gives children the opportunity to practise many examples of words representing a particular phonic or spelling pattern and so “cement” their new knowledge. Decodable texts should be regarded as a short-term strategy to build the automaticity and fluency required for reading for meaning – a means to an end. Children do not find them boring or meaningless – the focus is on enjoyment of skill development. In Louisa Moats' (1998, p.6) words:

“Adult distaste for decodable books fails to respect the child's need to exercise a skill. Children want to be self-reliant readers and are delighted when they can apply what they know”.

This highly explicit approach may seem very directive for teachers who were taught during their teacher education programs (as I was) that children simply needed to be in a print-rich environment and have high-interest stories read to them for the complex process of learning to read to occur. Although some children may learn to read via that process, the evidence is that explicit and systematic teaching of alphabetic skills is more effective and more efficient than other forms of phonics instruction (NICHD, 2000; DEST, 2005; Rose Review, 2006). Five and seven year follow-up studies have revealed that the superior effects of the synthetic approach do not diminish (Johnston & Watson, 2003, 2005). Astonishingly, the enhanced performance of girls over boys in early reading development, a factor that many may have taken for granted, appears to disappear when a synthetic approach is used – boys do equally as well as girls.

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The research is also quite convincing in showing that phonics instruction contributes to comprehension rather than inhibiting it. Because systematic phonics instruction helps children learn to identify words, it increases their ability to comprehend what they read. Reading words accurately and automatically enables children to focus on the meaning of text.

It is the efficiency and effectiveness of synthetic approaches relative to other forms of teaching reading that make it so suitable for teaching children the essential skills of decoding. It is particularly important for the children who do not acquire these skills using a more holistic approach, and who lag behind their peers. These students need acceleration – they need to “catch up”. ESL students in particular need explicit instruction as the sound-symbol relationship may differ markedly from their first language. Synthetic phonics approaches develop these skills very quickly so children can direct their full attention and cognitive energy towards extracting meaning from the text.

Embedded (literature-based) phonics instruction

An *embedded* or *literature-based* approach to teaching phonics involves pointing out letter-sound relationships to children incidentally while engaged in reading motivating and engaging text. Teachers do not identify all letter-sound correspondences – the constant interruptions would defeat the purpose of reading the text – they will choose some and not others, based on their understanding of what the children need.

Some children do acquire a working knowledge of the alphabetic principle using this method – usually those fortunate enough to have had great exposure to print before they arrive at school, who have seen important people in their lives read for a variety of purposes, shared books with them, turned the pages, talked about the pictures and the stories, had words and letters pointed out to them, become familiar with what letters and punctuation looks like, noted how print travels along a page – experiences that essentially add up to thousand of hours of “reading instruction”. These children are primed to take advantage of implicit phonics instruction. With very little direction they start to see the relationships between squiggles on a page and words.

For children who have not had these early experiences, however, this is not an effective approach. Pointing out letter-sound relationships “on the run” is too fleeting – too “hit and miss”. The array of letter-sound patterns represented in English is too vast and complex to be adequately covered by the random analysis of words that occur in a literature-based approach to phonic instruction. This method of instruction does not provide enough exposure to the various patterns for them to be internalised and firmly established.

Selecting books on the basis of their interest level for children results in great read-aloud sessions (and should occur for that reason), but unfortunately not in the acquisition of the skills required for some to become great readers themselves. The complexity of the story, and the fact that the letters they are meant to be attending to are surrounded by many other letters, distracts them from being able to concentrate on learning the more abstract letter-sound relationships; relationships with which they are not familiar and which require focused attention. While effective for some children, an embedded approach does not meet the needs of all children.

Analytic phonics instruction

An *analytic* approach to teaching phonics is also based on whole words and involves drawing children's attention to, and analysing, particular word parts. The emphasis is on initial sounds, onset/rime and word families (NICHD, 2000). Children are not required to pronounce sounds in isolation, nor to blend individual sounds together. Single letter-sounds are taught through reference to words that begin with that sound, thus, a series of words beginning with the letter a may be listed – for example, *ant*, *apple*, *animal* – and the children are invited to say the words, and note the similarities in letters and sounds. The phoneme attached to the spelling pattern *ar* might be taught through a collection of words like *car*, *tar*, *far* and *jar*. The relationship between these words will be clear to some children, but once again, those letters are embedded in different words with different meanings and accompanied by other letters – and for some children, those aspects will prove to be distracting. Faced with an array of words, some children will be looking at the words as a whole if attention is not drawn clearly enough to the target of instruction, and children are not given enough opportunity to practise the skills of blending and segmenting, which are the basis of what readers must do when faced with an unknown word.

An embedded or literature-based approach to teaching phonics involves pointing out letter-sound relationships to children incidentally while engaged in reading motivating and engaging text.

Associated with the analytic approach is *reading by analogy*. This strategy also requires children to look at word parts, and use known words to read new words. “Pen” would be read by relating it to the known word “ten”; “tall” would be related to the known word “ball”, and the more complex word “guild” would be related to the known word “build”. Proficient readers certainly use these strategies but reading by analogy is not fine-tuned enough to be a beginning reading program.

A blending of approaches...

Strategies like reading by analogy are similar to those taught later in a synthetic reading program, when students are blending larger clusters of letters together. By that time, students are very familiar with blending, can build on these skills, and usually have no difficulty putting more complex letter patterns together. The use of word families, which draws essentially on an analytic approach, is a very useful strategy once children know the single sounds and are competent at blending. Thus analytic and synthetic approaches share common elements at this point.

And of course, when reading class storybooks, and words that the children can decode appear, there should be opportunities for the children to read these words themselves, so they see the connections between what they are learning and the components of “real” reading. Effective teachers draw on all approaches as children develop their skills, but in the initial phase of beginning reading instruction, the research evidence supports the use of a synthetic phonics approach.

When do you start and for how long should phonics be taught?

Phonics instruction is most effective when it begins in the first or second year of formal schooling (NICHD, 2000), and for most students, most letter-sound relationships can be taught within two years. If phonics instruction begins early in Reception, single letter-sounds and common combinations should be completed by the end of Year One. If phonics instruction begins early in Year One, the basics should be completed by the end of Year Two. By this time, most children should have automated enough letter-sound knowledge to be able to read simple material accurately and quickly, and thus comprehend it. They should also be using their knowledge to write words and simple sentences.

Phonics instruction should continue after that time, but should take the form of spelling instruction and word analysis. Instruction in morphemes and Greek and Latin roots would normally continue throughout the primary grades. In essence, however, phonic instruction should continue until the students are competent.

Guidelines for teaching phonics systematically

- Teach letter-sound correspondences: in a sequence that introduces the most common sound for a new letter; that occur frequently and so are more useful; and initially separate those that look and sound alike (Carnine, Silbert, Kame'enui & Tarver, 2004).
- Begin with a few sounds that are continuous (e.g., /s/, /m/ and the vowels) as they are easiest to blend.
- As soon as children know letter-sounds that will blend into words, help them combine them into words using magnetic letters.
- Provide practice with connected text composed of a high percentage of simple vc and cvc words that the children know or can decode. Fitzroy Readers and the Dandelion series are examples of these for younger children, with the Talisman and Totem series targeting senior primary and junior secondary readers.
- Extend phonics instruction beyond single letter-sound correspondences to include more complex letter patterns; for example, double letters, consonant digraphs (e.g., *th*, *ch*), vowel digraphs (e.g., *ea*, *ai*, *ou*) and vowel consonant digraphs (e.g., *aw*, *ay*, *oy*) and other commonly occurring patterns (e.g., *-igh*, *-ear*) in the junior and middle primary years.
- Extend phonics instruction in the upper primary years to include morphological elements (e.g., Greek and Latin roots) and structural analysis (e.g., the links between sign, signal, assign, signature).

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If children are moving quickly through this sequence, there is no point holding them back. Indeed, the speed with which some children learn this material when it is explicitly taught can be surprising. The teaching sequence, lesson plans and resources associated with the *Letters and Sounds* program, which is freely available on the Internet, are consistent with these guidelines.

Phonics instruction is necessary but not sufficient

Phonics instruction is not an entire reading program for beginning readers. Along with phonics instruction, young children should be listening to stories and information texts read aloud to them, reading texts (both aloud and silently), and writing letters, words, messages and stories. Advocating a focus on explicit and systematic teaching of phonics in the beginning phases of reading instruction in no way suggests that reading for a purpose – reading to understand, learn and enjoy – is not the ultimate goal. The most efficient and effective way to reach that goal is to ensure that all children have mastered the code that underpins the written form of our language.

Learning to read is a complex linguistic achievement and, for many children, it requires great effort and incremental skill development. It is what goes on every day in classrooms that will determine whether or not this achievement is realised for all children.

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Series 1

Paper 1.0

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