2014

# Teaching Reading: Why the "Fab Five" should be the "Big Six"

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*Abstract: The Report of the National Reading Panel (NICHD, 2000) identified five key elements that were critical to the development of reading, and these have been widely accepted by educational jurisdictions as providing definitive guidelines for early reading instruction. This paper presents a case for the inclusion of oral language and early literacy experiences as an additional and foundational element. The pervasive influence of a child's early experiences on future reading achievement must be understood if teachers are to maximise the opportunities of all children to become independent readers.*

*Note: Portions of this paper have previously appeared on two educational websites.*
*www.decd.sa.gov.au/literacy/files/links/UtRP_1.0.pdf*
*www.eduweb.vic.gov.au/edulibrary/public/teachlearn/student/vinsresmono05.pdf*

## Background and Context

The quest to determine the most effective way to teach reading has been the focus of research endeavour and debate for many decades, with the major point of contention being whether or not alphabetic knowledge needed to be explicitly taught. Jeanne Chall's *Learning to Read: The Great Debate* (1967) was the first large-scale investigation of how best to teach reading. Other large reviews of the reading research were conducted by Anderson, Hiebert, Scott and Wilkinson (1985), Adams (1990), and Snow, Burns and Griffin (1998). There was a compelling consistency in the findings and recommendations of these meta-analyses, all of which acknowledged the importance of alphabetic knowledge as *one* of the requirements to develop independent reading. Nevertheless, debate continued, causing confusion and in some cases great division among researchers, teacher educators and teachers.

In a further (and some might say optimistic) attempt to end what had became known as the 'Reading Wars', the United States Congress called on the National Academy of Sciences to convene a panel of experts '*to assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read*' (p.1). Thus the National Reading Panel (NRP) was formed. Its distillation of many hundreds of studies of reading interventions was drawn from a survey of over 100,000 studies, and those included in the review needed to meet stringent standards relating to the research methodology employed, the size of the study, and the specific skills measured. In addition to reviewing this body of research, the Panel conducted regional consultations and received over 120 submissions from educational policy experts, scientists, university faculty, teachers, parents and students.

It is now well over a decade since publication of the Report of the National Reading Panel (NICHD, 2000), and its identification of the following five components as being critical to the development of independent reading:

• phonemic awareness
• phonics
• fluency
• vocabulary
• comprehension.

These findings were consistent with the earlier reviews, and have since been supported by the Australian National Inquiry into the Teaching of Literacy (DEST, 2005), and the British Independent Review of the Teaching of Early Reading (Rose 2006). The strong predictive value of phonological awareness and alphabet knowledge for later literacy achievement was also acknowledged by the National Early Literacy Panel (NELP, 2008, p. iii).

Since 2000, the 'Fab Five' has been widely disseminated across the English-speaking world as the framework for evidence-based reading instruction through publications directly emanating from the NRP review (Armbruster, Lehr, & Osborn, 2001; Burns, Griffin & Snow, 1999; Kameenui & Simmons, 1999; Moats, 1999); on university, educational and commercial websites; and by educational consultants and publishers. The term is even referred to in academic journals (for example Fang, 2008).

It is understandable that educational communities, and particularly those responsible for teaching young children the critical life skill of reading, welcomed such a highly-credentialed framework, especially when packaged as five easy steps to reading success, as so many publishers and websites have done. And most of those packages have offered teachers exactly what they have been searching for: specific guidelines to help them teach reading, secure in the knowledge that they are following evidence-based practice. It is indeed likely that the classroom practice of many teachers has been immeasurably improved by such guidelines.

While the evidence linking these five elements directly to successful reading acquisition is compelling, the strict criteria used to select research studies for inclusion in the NRP review, particularly the need to be directly linked to reading outcomes and to demonstrate growth within a particular time frame, served to exclude many studies of the role of oral language. Thus the underlying and pervasive influence of children's language abilities in relation to reading was not included.

Dickinson, Golinkoff & Hirsh-Pasek (2010) argue a similar point in relation to the findings of the National Early Literacy Panel (NELP, 2008), which investigated the skills present in children up to age five that were most predictive of later reading, writing and spelling achievement. Eleven skills were identified: a set of six which had strong associations with reading development, and a 'second tier' of five predictors with moderate to weak associations. Oral language featured in the second group. Dickinson et al. argue that this does not acknowledge the indirect impact that language facility has on reading, or the duration of the language effect in the longer term: that is, beyond the narrow developmental time frame that was the focus of the report. Their primary concern is that teachers will overlook the importance of developing strong language abilities in children.

The NELP Report itself acknowledges that there is '*a need for more careful study of the role of oral language in literacy development*' (NELP, 2008. p. 78), and scientific studies have found relationships between oral language and different aspects of reading. Nation and Snowling (2004) report that variations in oral language abilities account for differences in reading comprehension, and are in fact more

significant than age, non-verbal ability, or non-word reading. Biemiller (1999) found a strong link between early vocabulary development and later reading; and the connection between oral language and the development of phonological awareness has been widely reported (Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg, & Poe, 2003; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 1998). Share (1999) convincingly describes how decoding skills are supported by vocabulary, syntactic and semantic understandings. Roth, Speece and Cooper (2002) also report a relationship between early semantic abilities and reading comprehension in their longitudinal study of the connection between oral language and early reading. They also suggest that the contribution of different aspects of oral language to reading varied at different stages of reading development, and with readers of different abilities, thus confirming the complexity of the relationship between the two.

Importantly, there is evidence that children with low levels of oral language often have reading difficulties (Snowling, 2005). While Al Otaiba & Fuchs (2006) found that this group makes little progress on reading intervention programs, Fielding-Barnsley and Hay (2012) reported that language interventions supported the beginning stages of reading; and Oakhill, Cain and Bryant (2003) and Muter et al., (2004) found that language instruction led to improved comprehension results. It is clear that there is much still to learn about the precise contributions of different aspects of oral language to later reading development, but these studies highlight the need for teachers to understand the link between oral language and reading.

While the NRP's 'Fab Five' includes vocabulary and comprehension, both of which contribute to oral language, *oral language as a global construct does not appear*. Vocabulary and comprehension strategies do not necessarily build more general oral language facility. In fact most comprehension strategies concentrate on *reading* comprehension rather than oral or listening comprehension. The danger, as Dickinson et al. (2010) point out, is that teachers will miss the significance of oral language skills, particularly for children who do not arrive at school with the rich language experiences that provide the basis for learning to read.

The framework outlined in this paper therefore incorporates *oral language*. And because listening to stories and becoming familiar with how print works in the preschool years helps children bridge the gap between the oral (informal) language they hear at home, and the more literate language they will hear at school, these *early literacy experiences* are also included in the first and foundational component of the reading process, transforming the Fab Five into the 'Big Six'.

This framework remains an extremely simplistic representation of a highly complex skill, but is offered as one way of focusing teachers' attention not only on the five elements identified by the NRP, but also on the underlying importance of oral language to the development of reading. The six elements, and the role of oral language in the development of each, are discussed in the following sections.

## 1. Oral Language and Early Literacy Experiences

Oral language has recently been described as 'the substrate for literacy' (Christensen, Zubrick, Lawrence, Mitrou & Taylor, 2014, p. 18). From the moment of birth, children are immersed in an environment that will have an immense impact on their long-term language and literacy outcomes, as interactions with parents and other significant people in their lives shape the development of their language (Catts, Fey, Tomblin, & Zhang, 2002; Dickinson & Tabor, 2001; Snow, Tabors, Nicholson, &

Kurland, 1995; Wise, Sevcik, Morris, Lovett, & Wolf, 2007). Children who are surrounded by, and included in, rich and increasingly complex conversations have an overwhelming advantage in vocabulary development, in understanding the structures of language, and in tuning into the sounds of English. As children engage in these early interactions, they are immersed in various aspects of language that will ultimately support their reading development.

Oral interactions build children's vocabulary knowledge, with the number and variety of words that children hear being strongly correlated with later literacy achievement (Fernald, Perfors & Marchman, 2006; Hurtado, Marchman & Fernald, 2007, 2008). The explosive growth of vocabulary that occurs between the ages of two and six has a direct influence on children's later reading ability (Biemiller, 1999). Preschool children with strong receptive vocabularies tend to have better listening comprehension, word recognition and reading comprehension in the later primary years (Scarborough, 2001).

Interacting with better language users provides opportunities for children to use their growing vocabulary and different language structures (Albany, Morrow, Strickland, & Wood, 1998; Hart & Risley, 1995; Morrow & Rand, 1991). Children learn the grammatical rules or syntax of language unconsciously as they become familiar with how to correctly combine words into phrases and sentences. An understanding of grammar is important because children's familiarity with complex sentence structures helps them comprehend stories read aloud to them and that they later read themselves.

Oral language facility also builds an understanding of the pragmatics of the English language: the rules for appropriate communication in different situations and for different purposes. These include such important social skills as learning to say 'please' and 'excuse me'; and conversational skills, such as taking turns when talking with a partner, and staying focused on the topic. Pragmatics also includes understanding of 'extended discourse', such as *providing explanations,* a form of discourse used extensively by teachers (Snow, Burns, & Griffin, 1998; Snow & Tabors, 1993); and *telling a story* (narrative skills). Narrative is the form of extended discourse that appears in most books: understanding the narrative form is critical for listening, reading comprehension and written composition skills (Snow & Tabors, 1993; Ninio & Snow, 1996). In a recent study, Hipfner-Boucher, et al., (2014) also report an association between children's knowledge of the narrative structure and phonological awareness, hypothesizing that common processing demands underpin both oral narrative structure and phonological awareness.

We owe much of what we know about the impact of the early years on language development to the longitudinal research of Hart and Risley (1995), who tracked the language growth of 42 children from seven-nine months to the age of three. They found enormous differences in the number and quality of words children heard in the home, with some children being exposed to over 30 million more words than others. The rate of the children's vocabulary growth, and measures of IQ at age three and later, were directly related to how much their parents spoke to them. Nine years later, 29 of the 42 children were traced to study their academic performance in Grades 3 and 4. Vocabulary use at three years of age was strongly correlated with scores at age 9-10 in receptive vocabulary[1], language skill[2] (listening, speaking, semantics and syntax) and reading comprehension[3] (Hart & Risley, 2003).

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[1] r = .56 on Peabody Picture Vocabulary Test-Revised
[2] r = .72 on Test of Language Development-2: Intermediate
[3] r = .56 on Comprehensive Test of Basic Skills

Other early literacy experiences, such as familiarity with books and other forms of print, and seeing people reading and writing as part of their everyday lives also prepare children for reading. Children are not born with the knowledge that marks on a page can represent language; that we read English from left to right, and from the top of the page down; or even the way to open a book. This awareness develops gradually from a very young age if children observe people around them opening and closing books, reading, turning pages, and responding to what they read. And if young children are fortunate enough to have stories read to them, and have individual words pointed out, the process by which spoken language is transformed into written language becomes apparent (Tomopoulos et al., 2006). Some children also learn much more: they begin to identify letters and common letter patterns; and to recognise how letters differ from punctuation. It is not difficult to see how oral language and early literacy experiences provide the foundation for learning to read.

## 2. Phonological Awareness

Phonological awareness refers to the ability to focus on the *sounds* of spoken language as opposed to its meaning. As children are immersed in the language they hear around them and learn to speak it themselves, they are literally 'tuned into' the phonological system: the rhythm, patterns of intonation, and most importantly the individual phonemes (sounds) that make up words (Goswami, 2001; Metsala, 1999). It is oral language that provides the context, the means and the opportunity for phonological skills to develop.

For most children up to the age of three or four, *sound* has the same meaning as *noise*: sounds are the noises a truck or a bike or an animal might make. Asking children of this age what sound is at the beginning of *cow* is likely to be met with the response 'moo': in the minds of young children, a cow is an animal not a word, and 'moo' is the only sound they associate with a cow.

In order to read, however, children must understand what a 'sound' is in relation to spoken language. They must come to the realisation that a continuous stream of speech can be separated into individual words, that those words can also be broken up into one or more 'beats' or syllables, and that syllables are made up of a sequence of separate, single sounds. The most significant of these phonological components for reading development is awareness of the individual sounds or phonemes, that is, *phonemic awareness*.

The phonemic awareness of preschool children is the single best predictor of their future reading ability, better than either socio-economic status or intelligence (Adams, 1990; Bowey, 2005; Ehri et al., 2001, Hulme, et al., 2012; Melby-Lervåg, Lyster, & Hulme, 2012; Snow et al., 1998; Stanovich & Stanovich, 2003; Wasik, 2001). Some children find it very difficult to "pull apart" words to perceive them as a series of separate phonemes because the continuous nature of speech compresses them into a series of overlapping sounds through a process called *coarticulation*. Speech must be rapid and continuous to be comprehensible, and while coarticulation makes processing spoken language easier, it disguises the underlying segmental nature of speech. If children cannot hear the separate sounds in words, they cannot make the link between the sounds of speech and print symbols, an enormous stumbling block in learning to read and spell an alphabetic language.

Oral language provides the platform for the development of phonological skills. The longitudinal research of Maclean, Bryant and Bradley (1987) revealed that

children's knowledge of nursery rhymes was strongly related to development of their phonological skills, in particular rhyme and awareness of the first phoneme. The latter skill is in turn a prerequisite for learning the alphabetic code (Dickinson et al., 2003; Storch et al., 2002; Whitehurst & Lonigan, 1998).

It is important that teachers understand the links between oral language and subsequent reading development so they can support the oral skills of all their students, but particularly those whose skills are not as advanced as their peers. Not understanding, or ignoring, the role of oral language in this process risks limiting the chances of some children to become independent readers.

## 3. Letter-sound knowledge

Once children understand that words can be broken up into a series of sounds, they need to learn the relationship between those sounds and the letters used to 'map' them onto paper: the *alphabetic code*. An understanding of the relationship between sounds and the letters that represent them (graphemes) is at the heart of reading an alphabetic language, thus the decoding step is non-negotiable if children are to become independent readers (Hulme et al, 2012).

The direct link between broad oral language skills and the decoding process is perhaps less clear than it is with other elements of the Big Six, but Share (1999), and Share and Stanovich (1995) have long argued that when children are decoding, they draw on their vocabulary knowledge and understanding of the sentence context (that is, their understanding of syntax and semantics) to help them determine the set of words that might fit. In this way, children's knowledge of the language system as a whole also facilitates decoding.

Most teachers and researchers now agree that phonic elements need to be taught as part of a beginning reading program, but debate continues around how and when they should be taught. The empirical evidence currently supports a *synthetic* approach to teaching phonics for beginning and struggling readers (Johnston & Watson, 2003, 2005; NICHD, 2000; DEST, 2005; Rose, 2006), which teaches the single letters and common letter combinations in a discrete, systematic and explicit manner from the first weeks of formal schooling. The term *synthetic* refers to an emphasis on the process of *synthesising*, or blending individual sounds together when teaching sounds. The order in which the sounds are taught facilitates blending; for example, in several popular synthetic programs the first six letters to be taught – s a t p i n - can be combined in various ways to make many consonant-vowel-consonant (cvc) words. As soon as children know letters that blend together to make a word, they practise blending the sounds together. This approach appears to help children understand very early how the reading/writing process works: that it requires blending together and pulling apart the sounds of the language. In research over the past decade, including five-year and seven-year follow-up studies (de Graaff, Bosman, Hasselman & Verhoeven, 2009; Johnson & Watson, 2003; 2005), this method of teaching has been shown to be more effective in building both reading accuracy and comprehension than other approaches, particularly for children who do not come from rich literate backgrounds. In the Johnson and Watson studies, boys achieved equally as well as girls, in many cases outperforming them.

Once children begin to learn the relationship between letters and sounds, it is important that they have opportunities to practise their blending skills by reading short *decodable books*. These are specially constructed short texts made up of words

the children can decode (because they have been explicitly taught the letter-sound knowledge within them) and high frequency sight words that are taught simultaneously. This step is most important for children who do not pick up these relationships quickly, but in fact most beginning readers benefit from immediate practice of their new skills to build automaticity, fluency and confidence.

The use of decodable texts is perhaps the most controversial aspect of a synthetic approach, as it opposes the continued use of books with highly predictable text. In the emergent literacy phase, which for most children is before formal schooling, the use of books with repetitive and highly predictable text is useful. Children at this stage are often just learning about books, and beginning to understand that print has meaning. Continued use of highly predictable texts once children are learning letter-sound relationships can be counterproductive. Children will often continue to look at the pictures for clues or continue with the repetitive pattern rather than actually looking at the words and using their decoding skills to work out what they are. The children who are most likely to do this are those for whom the task is most difficult, and therefore those who need to practise most. Texts that encourage them to look at the pictures to work out words deny them the opportunity of gaining mastery over the blending process, a critical step on the path to meaningful reading of an alphabetic language. With the repeated practice that the decodable texts provide, these early skills soon become automatic, and children can direct all their cognitive energy to determining the meaning.

The recommendation to use such resources is not to suggest that children should not read other types of texts. In fact, the research literature makes it very clear that children should be using their newly developing phonic skills in the context of motivating texts as soon as possible, but not those that incorporate such repetitive patterns that reading is not required. They should also continue to have high quality texts read to them: texts that engage and motivate while simultaneously developing more advanced language structures and vocabulary.

### *Additional Components of Letter-sound Knowledge*

While instruction in letter-sound relationships is necessary to help children become independent readers, it will not help them when they encounter irregular words such as *said, was* and *saw*. These words must be learned to the point of automaticity; that is, learned so well that the visual patterns of these words are stored in the children's visual memories or *mental lexicons*. The larger the pool of words in a child's mental lexicon, the better equipped he or she will be to comprehend what is being read.

The teaching of letter-sound knowledge should extend into middle and upper primary school to include more advanced content such as affixes, Greek and Latin roots, and the teaching of spelling rules. Learning the structure of words at the syllable and morpheme levels supports word recognition, spelling, and vocabulary development.

The goal of teaching letter-sound knowledge – phonics, morphemic units, and sight words – to the point of automaticity, is rapid word recognition. It is of great importance for fluency and comprehension that common letter combinations and sight words are not only learned, but that they are learned so well that they are recognised immediately. When an unknown word appears in text, children will feel more confident if parts of that word are immediately recognised. This greatly increases the

likelihood that the whole words will be successfully decoded, and eventually that the whole words are recognised 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 text rather than on decoding.

### *Is explicit teaching of phonics consistent with a balanced approach?*

Some teachers have concerns that a recommendation to explicitly teach letter-sound knowledge detracts from a balanced approach. Explicit phonics instruction is essential for most beginning and all struggling readers, but should always be combined with the many other elements of an effective reading program, such as rich oral language instruction, and modelled and guided reading. Explicit and systematic phonics instruction is regarded as *necessary but not sufficient*: it should never, for example, take more time in a day than other elements of the literacy program. Approximately 20 minutes of review, explicit demonstration and guided practice of letter-sound sound knowledge at least four days per week should be included for most children in the first few years of formal schooling in order to build deep knowledge of the building blocks of the written language. The essence of a balanced approach is providing the fundamental elements of instruction that children need so they have the best possible chance of becoming independent readers. It is true that some children readily acquire the skills of independent reading without highly explicit teaching, but if *balanced* is interpreted as offering all children only an embedded rather than an explicit approach to phonics instruction, those most in need will be further disadvantaged (DEST, 2005; NICHD, 2000; Rose, 2006).

## 4. Vocabulary

Although the relationship between vocabulary and reading comprehension was recognised many decades ago (Davis, 1944; Thurstone, 1946; Singer, 1965; Spearitt, 1972), it was the Report of the National Reading Panel (NICHD, 2000) that refocused teachers' attention on the importance of vocabulary to both reading acquisition (learning to read) and reading comprehension. Being able to transform letters into words through decoding is of no use if those words do not have meaning: vocabulary knowledge is a key component of comprehension.

If children know the meaning of a word, they are far more likely to be able to read it and make sense of it within a sentence. For example, assume the words *demand* and *disturb* are within the oral vocabulary of a young reader and basic decoding skills have been mastered. On encountering the sentence 'Tom's teacher demanded to know what had caused the disturbance', the reader will almost certainly be able to decode and process the meaning of the words *demanded* and *disturbance*. If, however, the reader is not familiar with the meaning of those words, the sentence will be largely incomprehensible, even if some decoding attempt can be made. This will be the case for every sentence the child tries to read: word knowledge contributes in a major way to reading comprehension.

Vocabulary is, for the most part, learned indirectly through repeated exposures to new words in conversations, by listening to stories and through the media (Nelson & Van Meter, 2006; Senechal, 1997). Different groups of children, however, have very different outcomes from learning via these indirect routes (Hart & Risley, 1995). Young children who are exposed to a broad and rich vocabulary will gradually learn

the meaning of many words and arrive at school as highly competent language users who are able to absorb new words easily (Catts et al., 2002; Hart & Risley, 1995). If they are being read to regularly, they will also learn a more 'literate' vocabulary. They are more likely to acquire reading skills early, whereupon they can begin to read for themselves and build an even stronger vocabulary, which will further advantage them.

Children from less rich literacy backgrounds will hear a far more restricted range of words (Biemiller, 2005; Hart & Risley, 1995), have less access to the vocabulary of books, will be more likely to have difficulty acquiring the skills of reading, and less opportunity to use their own reading skills to develop their vocabulary further. They will experience increasing disadvantage as more avenues of building vocabulary and world knowledge are closed to them.

The research of McGregor, Oleson, Bahnsoen and Duff (2012) with students in grades 2, 4, 8 and 10 with overall language impairments revealed that they scored significantly lower on vocabulary knowledge than their peers with typically developing language across the four grades. This persistent trend across time highlights the link between oral language skills and vocabulary, and the role that oral language development can play in this aspect of reading.

Relying on indirect vocabulary development is not enough to help close the gap between different groups of children. Fortunately, there is now evidence that direct instruction is effective for vocabulary learning (Beck & McKeown, 2007; Tomeson & Aarnoutse, 1998; Rinaldi, Sells & McLaughlin, 1997), and this is required if children from less advantaged backgrounds are going to make substantial gains in this important area; in fact, direct instruction of vocabulary has been found to add to the vocabulary growth of all children (see Beck, McKeown & Kucan, 2008, p.4 for a brief discussion of related research). While the vocabulary demands of secondary school rise dramatically as students are faced with extensive content-area vocabulary, primary school is where a rich store of words useful across many contexts needs to be developed. This requires "rich and robust" (Beck & McKeown, 2002) instruction that extends far beyond the typical dictionary definition or 'use it in a sentence' exercises. It requires careful choice of words for instruction, and strategies that develop deep understanding, regular use, and an increasing *word consciousness* in all students.


## 5. Fluency

Fluent reading appears confident and effortless, which disguises the complexity of the many processes that have occurred to allow the reader to arrive at that point.  Fluency has a *transformational* impact on the reading process: it is the point at which component skills are so automated and highly integrated that maximum cognitive energy is available to focus on meaning. Fluency is where *learning to read* transforms into *reading to learn.*

There are three core components of fluency. *Accuracy* is the first requirement, as inaccurate word reading will logically lead to a breakdown in meaning. A fluent reader has a vast store of *sight words* that can be read quickly and easily. This term does not only refer to irregular high frequency words like *said* and *put*, but to all those words that are immediately recognised. Even words that originally had to be decoded – for example, *distinguish* or *misrepresentation* –are eventually recognised on sight, and become part of the reader's sight vocabulary or *mental lexicon* of words. Storage

in the mental lexicon also requires that the meaning of the word is known, which again highlights the importance of oral language, and specifically vocabulary, to the reading process. The greater the number of words that are understood and recognised on sight, the more fluent a reader will be.

Even highly competent readers, however, will not be fluent when the text contains many unfamiliar or technical words that are beyond the reader's knowledge base, and are not part of that reader's mental lexicon. Fluency demands that the text is at the reader's independent reading level. This is why beginning and struggling readers need simple text at their independent level to build speed and confidence. Home readers should fit into this category. Some parents request 'harder' books because their child can already read those being sent home. Yet books at the reader's independent reading level provide 'quick wins' (Rose, 2006, p. 27): opportunities to build rapid word recognition, practise phrasing, interpret punctuation, develop appropriate expression, and most importantly, build confidence and belief in themselves as readers.

The second core component of fluency is the *rate* at which readers can access connected text. The rate required for basic comprehension is around 90–100 words per minute (Armbruster et al, 2001), which is usually achieved around the end of Year 2. At this stage, children should be able to read and understand simple text. Rate has been found to be almost as important to fluency as reading accuracy (Kuhn & Stahl, 2000) and is strongly correlated with reading comprehension (Fuchs, Fuchs, Hosp, & Jenkins, 2001).

Because a rapid reading rate is one of the key indicators of fluency, it is sometimes confused with the entire set of skills that contribute to fluency. Reading quickly but without regard for punctuation, expression and comprehension does not constitute fluency (Rasinski, Rikli & Johnston, 2009). Students can become faster readers without the corresponding improvements in comprehension (Rasinski, 2006), a fact to which many teachers will attest. Building students' reading rates is important but not at the expense of comprehension.

*Prosody* or *reading with expression* incorporates phrasing, stress, pitch, and rhythm, and is the third component of fluency. Poor prosody can lead to confusion for the reader if inappropriate word groupings are read (Hudson, Lane & Pullen, 2005). Kuhn et al (2010) found that prosody predicts children's reading comprehension skills. Appropriate prosody also has an impact on the reader's interest and motivation to read as it enlivens oral reading and reflects the author's message more accurately and more meaningfully (Rasinski et al, 2009), and is essential if oral reading is to be meaningful for the listener.

Geva and Farnia (2011) studied the development of reading fluency and comprehension of two groups of students in Grades 2 and 5: a group whose first language was English, and another who were English language learners. They found that the connection between oral language skills and fluency changes over time for both groups: in Grade 2, fluency is closely aligned with vocabulary knowledge and phonological awareness, but by Grade 5, fluency draws more heavily on broader language skills such as command over different grammatical structures, which supports accurate prediction of upcoming words. Thus the pervasive influence and contribution of oral language facility is also evident in this element of reading.

## 6. Comprehension

The culminating goal of reading is, of course, comprehension, which requires engagement with text at a deep level, and an array of skills that go far beyond simple word recognition. Research over several decades has shown that good readers engage in reading in particular ways that are not shared by poorer readers (Cunningham, 2000; Paris & Myers, 1981; Pressley et al., 2007; Short & Ryan, 1984; Torgesen, 1982, 2000).

Good readers are *purposeful*: they have a repertoire of reading 'approaches', and understand that they can adapt their style of reading according to their particular purpose. They know to read the instructions for their new piece of technology carefully, but that they can skim over a newspaper article lightly; they can scan a page quickly for a telephone number, take notes as they engage deeply with an article they need to research for an assignment, or curl up and leisurely read a novel for pure enjoyment. Good readers know why they are reading and how they should read to accomplish their purpose.

Good readers also *understand the purpose of the text*, and that, just as readers read for different purposes, writers write for different purposes. Different text types, such as those written to entertain, inform, advertise or persuade, have particular characteristics. Being aware of the writer's purpose prepares the reader for certain literary devices designed to affect their response to the text.

Most importantly, good readers *actively engage with the text*: they become involved in their own reading processes. As they read, good readers access their prior knowledge, assimilate new information, and monitor their comprehension by confirming predictions, distinguishing major content from detail, or asking and answering questions. If they begin to lose meaning, competent readers will use 'fix up' strategies such as slowing down, chunking pieces of information, or rereading sections. They use strategies to support their understanding and retention of information by creating mental images; taking notes; using a dictionary, glossary or thesaurus; or using graphic organisers to organise new information. These strategies enable the competent reader to draw meaning from the text by identifying and remembering critical information, and understanding relationships and connections.

Reading comprehension requires all the component parts of the reading process to be securely in place, each of which has been supported by oral language in some way. Some researchers have found that oral language as a global construct contributes to comprehension (Kendeou, van den Broek, White, & Lynch, 2009; Nation & Snowling, 2004), while others have found relationships between comprehension and particular elements of oral language, such as vocabulary knowledge (Biemiller, 1999; Hart & Risley, 1995; Scarborough, 2001; Snow, Burns, & Griffin, 1998) semantic skills (Roth et al., 2002); and listening comprehension (Nation & Snowling, 2004; Oakhill, Cain & Bryant, 2003). There is sufficient evidence to support the inclusion of oral language as a genuine contributor to reading comprehension, the ultimate goal of reading.

## Conclusion

Reading is without question a highly complex cognitive process, but research endeavour over the past four decades has shed some light on how it develops, the multiple factors that contribute to the process, and how it should be taught. The

Report of the National Reading Panel did much to synthesis this body of knowledge, and has led to new understandings and new classroom practices that have increased the effectiveness of teachers to meet the needs of all students. This paper has argued that the five elements identified by the NRP would be strengthened by the recognition that oral language and early literacy experiences are the foundation of all literacy achievement. An understanding of the contribution of early oral language development to longer-term literacy outcomes is important if teachers are to maximise their students' opportunities to develop independent reading skills, and enjoy the many advantages that flow from that achievement.

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