RESEARCH REPORT JUNE 2023

Need to know or nice to know ...

What is at the heart of the Science of Reading for teachers?

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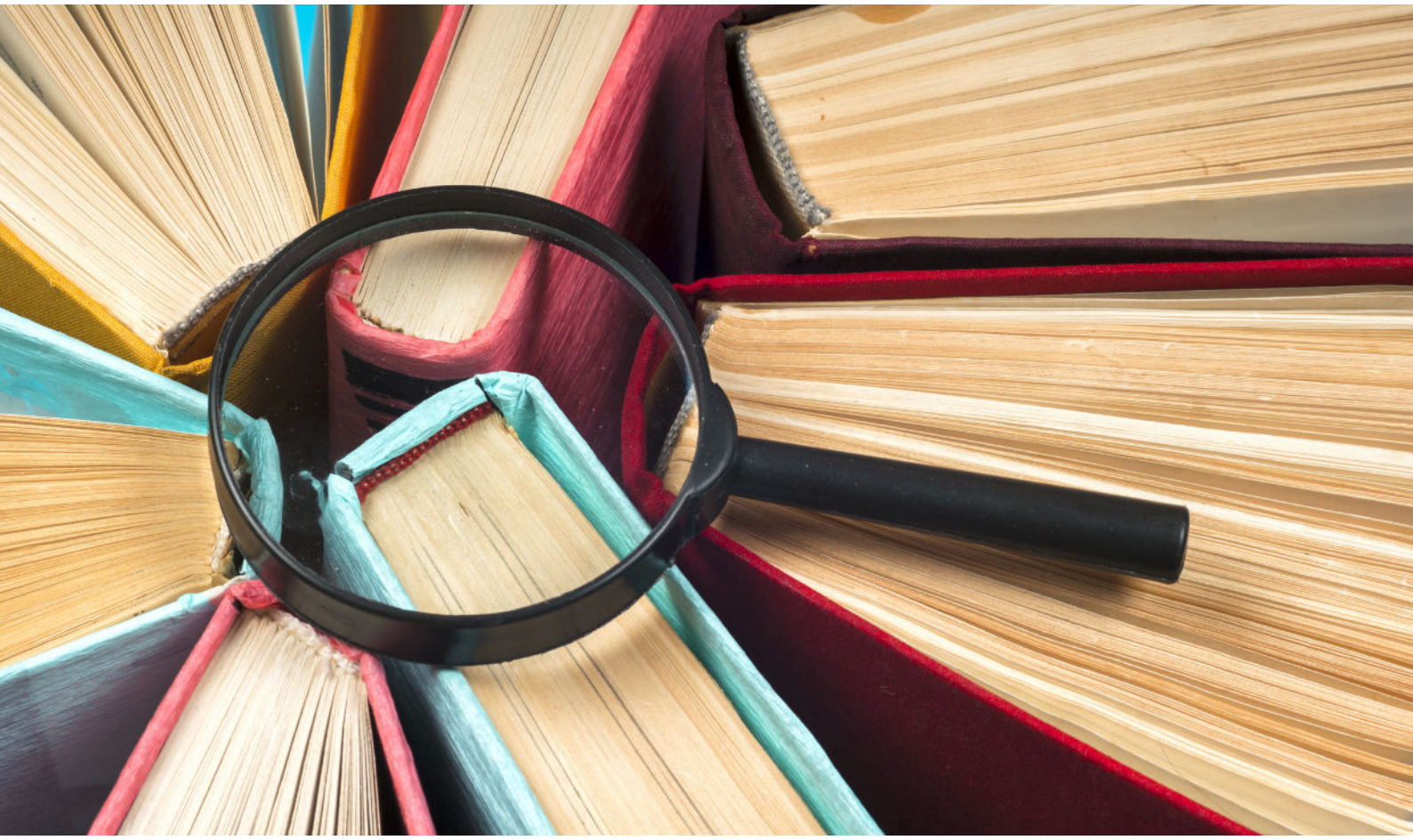

MultiLit five from five

Published by Five from Five, a community education initiative of MultiLit Pty Ltd.
Level 7, Building C, 11 Talavera Road, Macquarie Park NSW 2113

www.fivefromfive.com.au | www.multilit.com

MultiLit is a research initiative of Macquarie University

The depth, breadth and volume of articles, books and presentations on scientific reading research is enormous and growing every day. It can be overwhelming even for researchers, educators and practitioners who have been immersed in the literature for decades. Interpreting the research and translating it into classroom practice requires specialised knowledge and a lot of time, and the prospect can be daunting and demotivating for busy teachers who are newly aware of the Science of Reading. Teacher knowledge about language, literacy and learning is necessary for effective instruction (Hudson et al., 2021), but not all of the knowledge gleaned from scientific research is necessary to be a highly effective teacher of reading.

Learning to read English is hard, but we know a lot about how to teach it

The first thing to acknowledge is that English has one of the most complex writing systems of all alphabetic languages. In the research literature, it is called an 'opaque orthography'. This means that English is harder to learn to read and write than many other languages.

Figure 1 was published by Dehaene (2020) using data from Seymour, Aro and Erskine (2003). It shows the wide variation in the percentage of one-syllable words children can read correctly after one year at school. In the UK it was 41%, in France it was 88%, and in Italy it was 92%.

The variation corresponds to the complexity of the orthography. In languages where letters and sounds have a close to 1:1 relationship, students learn to decode and read words more quickly.

These data are fairly old and the exact percentages are likely to be different now, but looking at more recent research, the general pattern holds true. Note also that the statistic for the UK is from Scotland, not England. It's likely that students in English schools would have a quite different result now: a lot has changed in reading instruction in England since the early 2000s (Stainthorp, 2020). Nonetheless, English is a complex language, even more so for words with two or more syllables.

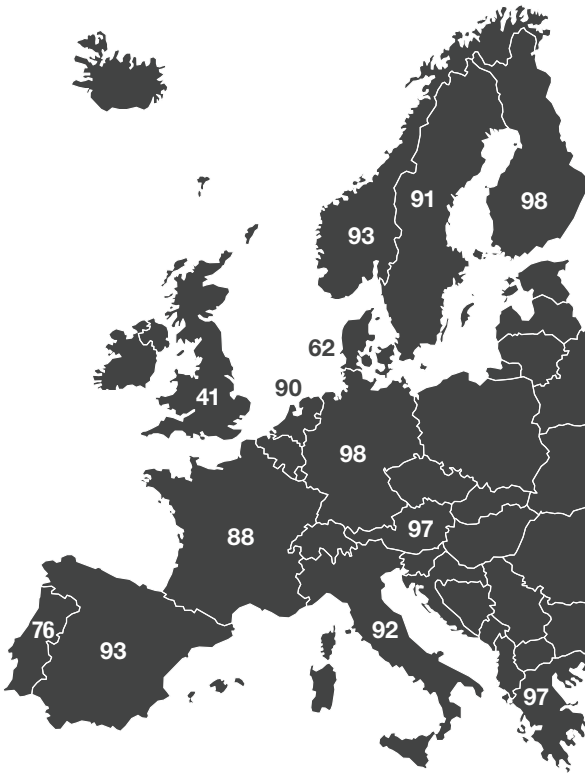

Figure 1. Average % of one-syllable words children could read at the end of the first year of school.

Fortunately, reading is the most widely researched topic in education

The questions of how children learn to read and how best to teach them have been studied extensively. A review by Petscher et al. (2020) found 14,000 studies published on reading in the last decade alone. Given that reading research spans many decades, the total quantum of research studies on reading is a multiple of this number.

However, not all of it is high quality research. In the past few years, the body of high quality research on reading instruction has become widely known as the Science of Reading. An excellent definition of the Science of Reading has been published by The Reading League (2023):

> "The **science of reading** is a vast, interdisciplinary body of scientifically-based research about reading and issues related to reading and writing. This research has been conducted over the last five decades across the world, and it is derived from thousands of studies conducted in multiple languages. The science of reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties."

The type of research included in the Science of Reading is very important. There are numerous ways to describe the characteristics of scientific research. This list by Vaughn and Fletcher (2021) is as good as any.

- Pose significant questions that can be investigated empirically.
- Link research to relevant theory.
- Use methods that permit direct investigation of the question.
- Provide a coherent and explicit chain of reasoning.
- Replicate and generalise across studies.
- Disclose research to encourage professional scrutiny and critique.

The use of these methodological processes provides confidence that the findings of scientific research are a good representation of the true relationship between the variables being studied.

Why it is important to consider 'need to know' vs 'nice to know'

What is particularly great about the Science of Reading is that it is so consistent. Since the National Reading Panel (2000) report, new research has largely confirmed and extended its findings rather than contradicted them. This was the conclusion of the most comprehensive research review in recent years by Castles, Rastle and Nation (2018). The problem is that the scientifically-derived knowledge about reading is still widely unknown (or is actively resisted) among educators and those who influence what goes on in schools in all English-speaking countries.

With so many teachers being denied even basic information about the Science of Reading in their initial teacher education, and with teacher professional associations actively ignoring the Science of Reading in their advice to teachers, many are turning to alternative sources – The Reading League, Five from Five, the Florida Centre for Reading Research, and Reading Rockets to name a few. Social media groups are also becoming very influential.

These access points and the availability of information are brilliant, but for teachers who are new to the Science of Reading universe, the sheer volume and technical nature of the information can initially seem intimidating.

And, even if Science of Reading content was in teacher preparation and professional learning, literacy is still competing with all of the other things teachers need to know and the full range of research findings cannot be included.

So there is a need to prioritise. There are some concepts and findings in the Science of Reading that are essential for the understanding of why certain instructional strategies are more effective than

others – such as the different cognitive processes of novice and skilled readers. However, effective teachers of reading don't need to be able to name all of the parts of the brain, even though that's nice to know. Instructional design and lesson planning do not depend on it.

Likewise, because time is limited in the classroom, and in children's reading development, we have to make decisions about how to maximise teaching time in the most effective ways. Around 25% of children's waking lives is spent in school, of which less than half is typically allocated to learning to read and becoming literate in the broader sense. Children have no time to lose. Every day is important.

The next section will outline two things to be kept in mind when making decisions about how to use instructional time: simplicity and opportunity cost.

Simplicity

Human beings like patterns and rules and they like things to make sense. While taking a purist approach that attempts to reconcile irregularities with complex arrays of rules may be intellectually satisfying, it's not always the most pragmatic approach for novice learners. For novice learners, building on their existing knowledge and keeping new information conceptually simple, even if it is not always absolutely technically accurate, advances their learning. 'Take the shortest path' (Lemov, 2015).

English is a hybrid language that has evolved over a long period of time to incorporate multiple source languages, regional variations in pronunciations, shifts in pronunciation over time, and occasional attempts to standardise spellings in a living language. It's almost impossible to come up with a set of rules that accommodate and satisfy all possibilities of spelling and pronunciations. According to Mark Seidenberg, "There isn't any canonical list of what the rules of English are. There is no agreement about this" (Seidenberg, 2021).

The issues of teaching speech-to-print vs print-to-speech, tricky words, letter names, and syllable types are good examples. You can attempt to apply purist rules to all of these, but in practice such rules simply add unnecessary complexity for beginning readers, and research does not support a linguistically purist approach for early reading instruction.

As Seidenberg also pointed out, teaching a large number of complicated rules still requires a lot of rote memorisation, so if the goal is to reduce the number of words that students need to commit to memory, it is just swapping one type of memorisation for another. The most stable knowledge to impart to students is the way that the 26 letters of the alphabet are used to represent the 44 sounds of speech (which have variations due to accent), and a limited set of conventions for spelling based on morphology and etymology (Stone, 2021; Westwood, 2023). However, the imposition of an extensive set of spelling rules that are not widely, let alone universally, accepted does not have evidence to support it.

It can be useful for a teacher to know the intricacies of the English orthography, but they do not have to attempt to impart it to young beginning readers from Day 1. As Peps Mccrae says, "Teaching is, in large part, an efficiency play" (Mccrae, 2023). Educators need to strike a balance between the technical accuracy of the curriculum content and the ideal pedagogical strategies for the developmental stage of the learner.

Speech-to-print or print-to-speech?

While it is true to say that speech is the original form of language and that writing was invented to encode it – and that this is an essential *principle* for students to understand – it is not necessarily true to say that *instruction* in decoding should also work in this direction. There are a few reasons for this. One is that reading involves translating from print to speech, and effective instruction should focus on the task and skill we want children to learn. Another reason is that effective instruction is also systematic and sequential. It is extremely difficult to devise a logical instructional scope and sequence organised around phonemes. Finally, spellings are more stable than pronunciations and therefore

it is easier to accommodate variations in accents and the pronunciation of morphemic units when graphemes or print provide the organising content (Desjardins, 2021).

The simplicity principle applies to this question. A long-term program of research by Jonathan Solity and colleagues has analysed the statistical frequencies of grapheme–phoneme correspondences (GPCs) in words in books. The idea was to identify the optimal sequence of instruction in terms of accuracy and efficiency. They found that 80% of phonically regular words can be read if students know the most common 20 GPCs (and how to blend them to read). They also found that around three-quarters of *all* words in children's books could be read if students know 60 GPCs and 58 high frequency irregular words (Solity, 2020). This indicates that instruction should focus initially on regularities before introducing systematic variation, and necessary instances of irregularity can be accommodated by children as they gain confidence and understanding.

Reading irregular words

A purist response is that there are (almost) no irregular words. That's technically true, depending on the definition of irregular. In scientific reading research, the term 'regular' is narrowly defined and refers to words that are decoded using the most common GPCs. It's more useful to think about degrees of regularity. Some words can be decoded and encoded using the most frequent or common form of their GPCs. These are usually (but not always) monomorphemic words. Other words will contain a less common form of one or two GPCs but are not necessarily irregular in a broad sense, in that they do follow rules bound by the grapheme's position in the word and its morphology.

In the beginning stages of reading instruction when students are learning the basic code, many high frequency words are irregular (at that stage of learning), such as 'was', 'one', 'she', 'go' and 'find'. These words need to be learned alongside a typical phonics scope and sequence to enable students to read connected text.

In a recent research review, Danielle Colenbrander and colleagues concluded that there is no evidence that teaching a small set of high frequency words alongside systematic, explicit instruction in phonics is harmful for beginning readers (Colenbrander et al., 2020). For reading irregular words in general, it is efficient to teach very young readers to use mispronunciation correction strategies such as 'set for variability', which can include something known as 'vowel flexing'. An example of this is when a student sees the word 'want'. "They may initially read it with a short /a/ pronounced to rhyme with 'rant' – but then try an alternative vowel sound to find a word they recognise." Later, word analysis helps children to make sense of, generalise and automatise less regular spellings. They will learn that the letter <a> is often pronounced as /o/ when it follows <w> but they can learn to read the word 'want' before that spelling pattern is learned.

Letter names

In a similar way, there is some debate about whether teaching children letter names in initial reading instruction is confusing and will interfere with their learning of GPCs. There does seem to be some logic to this, but the research evidence leans more towards the teaching of letter names than not, especially for spelling. There are a few reasons. As Rebecca Treiman has said, letter names are stable and consistent ways to refer to graphemes (Treiman, 2021). It is better to say that the grapheme that represents the phoneme /sh/ is spelled <s><h> than to say it is spelled /s/ /h/. That would be even more confusing. Another reason is that most letter names provide a clue to one of its phonemes. For example, the letters <b>, <m> and <s> include their phoneme, while vowel letter names are the long form of their phoneme. Research has also shown that knowledge of letter names helped children to learn letter sounds (Share, 2004) and is a good early predictor of later reading achievement (Treiman & Wolter, 2020). Many children recognise the alphabet when they begin school; there seems little point in disregarding the knowledge children already have when we know that knowledge will subsequently be necessary.

Syllable types

Words have multiple sub-word units. For example, the word 'telephone' can be analysed in terms of letters, GPCs, syllables, and morphemes. Understanding these sub-word units is important for reading and spelling, but the least stable of these is the syllables. Because the first syllable has a short /e/ sound, we would typically split the syllable after the <l> to denote a closed syllable type.

t-e-l-e-p-ho-n-e	letters (9)
t-e-l-e-ph-o-ne	graphemes (7)
t-e-l-e-ph-o-ne	phonemes (7)
tel-e-phone	syllables (3)
tele-phone	morphemes (2)

Open and closed syllable types are commonly taught to children to help them choose the right vowel sound or spelling for multisyllabic words.

But beyond some basic guidance about the functions of syllables (i.e., that all syllables have a vowel sound), how useful is it to spend instructional time on 'rules' based on syllable divisions? A study by Devin Kearns found that syllable types are highly unreliable. Depending on the number of syllables and the vowels they contain, open and closed syllable rules predict the correct vowel pronunciation between 18% and 94% of the time (Kearns, 2021). In other research, Kearns (2015) found that students learn to read multisyllabic multimorphemic words more effectively (assuming they can decode using phonics) by using morphology and vowel flexing, the latter being highly dependent on vocabulary.

In 1945, Edward Dolch published an article called 'How a child sounds out a word'. The title is itself an exercise in simplicity.

Dolch didn't talk about cognitive load but his thinking was entirely consistent with it. He wrote:

"Rules require an extra step between seeing print and thinking sound and this extra step should not be inserted if it can be avoided" (Dolch, 1945, p. 279).

It's important to note the caveat *if it can be avoided*. Some rules do lead to greater efficiency and accuracy, but not all of them.

When something becomes so complex that highly specific rules make it more complicated, we can apply heuristics or 'rules of thumb' and then allow the brain to do what it does well – find the patterns and remember the exceptions.

Opportunity cost

By choosing to spend instructional time on one aspect of reading, there is inevitably less time to spend on others. This is called opportunity cost: what are you *not* doing that might be more beneficial than what you *are* doing?

There is no doubt that explicit instruction is the most effective method of teaching. However, the English language system and its vocabulary is too vast to be learned by explicit instruction alone. It has been estimated that students need to know a minimum of 8000 word families in order to be able to read high school level texts without impaired comprehension. This is clearly more than can be taught explicitly in school. This research further suggests that the average student learns 1000 new word families between Year 4 and Year 6, a minority of which would have been explicitly taught (Duff & Brydon, 2020). Most will have been acquired through reading.

Research consistently finds that the amount of reading activity has a reciprocal relationship with vocabulary growth and reading comprehension, especially once students have mastered decoding (Ricketts et al., 2020; van der Kleij et al., 2022). Good readers read more, and kids who read more get better at reading. Conversely, struggling readers do less reading and fall further behind. This is known as the 'Matthew effect' — the rich get richer while the poor get poorer.

Stanislas Dehaene (2022) says that three main variables predict success:

1. Teaching of grapheme–phoneme relations
2. Size of the child's spoken vocabulary
3. Read, read, read!

"One shot learning is not enough – children need to consolidate what they have learned to render it automatic, unconscious and reflexive" (Dehaene, 2020, p. 242).

This should not be misconstrued as saying that children learn to read just by exposure to text. Explicit, evidence-based instruction for beginning and developing readers is essential. But, as explained by David Share in his 'self-teaching hypothesis', beyond a certain point in reading development, reading practice of a wide variety of texts has to be a big part of the equation (Share, 1995). Ideally, this would be at home but it cannot be neglected in the classroom.

Reading practice at school is not as simple as 15 minutes a day of silent reading. It needs to be more structured than that. What students read is important, and their comprehension of the text must be monitored. There is evidence that the long-standing practice of matching students to fine grained text levels using informal reading inventories is neither precise or reliable (Burns et al., 2015), and is likely to limit students' reading growth rather than facilitate it (Shanahan, 2020). Once students have a good grasp of decoding and are able to read natural language text, a better approach is to encourage them to read challenging texts that increase their knowledge of vocabulary and syntax, and expand their background knowledge, without exceeding their abilities to the point where understanding and motivation is lost. It's a tricky balance, but a necessary one.

Furthermore, the adoption of a content-rich curriculum in which students are building knowledge while developing their reading and writing skills (and vice versa) will boost daily reading time (Smith et al., 2021, Oakhill et al., 2023).

The aim is to get children reading well so they can read for themselves

As Colenbrander and colleagues wrote: "The ultimate aim of reading instruction and intervention is to equip children with the skills and knowledge they need to read fluently and independently, and to do this in the shortest possible instructional time" (Colenbrander et al., 2020).

It is wonderful for teachers to explore the fascinating intricacies of cognitive science and linguistics but we should never lose sight of this instructional aim. In order to achieve it, as Anna Gillingham is quoted as saying, "You go as fast as you can and as slowly as you must" (Hanbury, 1996).

How do we decide what is instructionally important?

Criteria to consider include:

- quantity of research
- quality of research
- strength of the findings
- deductive logic and intellectual coherence.

The first three of these criteria are the best known. These are the criteria used in systematic reviews and meta-analyses. They are, by and large, the criteria that the National Reading Panel used to come up with the 'Five Big Ideas' in 2000. Since then, the volume and consistency of research that has contributed to the Science of Reading is remarkable. While some of the research and theories of reading regularly quoted as the classic studies of the Science of Reading might seem dated, the pertinent point is whether they still provide a robust model in recent research and meet these criteria. The Simple View of Reading (Figure 2) is a perfect example – almost forty years after it was proposed it continues to be a valuable theory of reading (Gough & Tunmer, 1986; Vaughn, 2018). There is no reason to abandon something just because it predates the World Wide Web.

Figure 2. The Simple View of Reading (Gough & Tunmer, 1986)

All of the first three criteria are required to decide that a particular practice or finding is high value (Bell, 2023). Consider Reading Recovery. There is a lot of research on Reading Recovery and some of it is fairly high quality in terms of sample size and methodology. However, the findings of the best studies show that its effects are relatively weak or even negative. That is, there is a lot of good evidence that Reading Recovery doesn't work very well (Buckingham, 2019). The last part of that sentence tends to get lost sometimes.

The fourth of the above criteria is less well understood but it is very often required. It is the thinking that needs to be applied to make professional decisions when the ideal amount of direct evidence is not available. It is a process of taking what we do have good evidence for, and applying it in a logical way to make the best decision at the time.

When it comes to policy and practice in teaching reading, doing nothing is not an option. Decisions have to be made. We know that the ability to decode words using GPCs is essential for accurate reading, so we have to make a decision about the best way to teach it. This decision should be based on the best available evidence, even if it is imperfect. Becoming paralysed because we don't have multiple randomised control trials comparing various types of phonics instruction over a 10-year period is not an option. We must use the evidence we have to make the best choice for the students in our classrooms today.

There is evidence that systematic phonics instruction gets better results for students than no phonics instruction. There is evidence that learning GPCs is more efficient and accurate than learning word families or syllables. There is evidence that phonemic awareness and letter knowledge is a stronger predictor of reading than onset/rime awareness. Good studies have shown that instruction is more effective when it is explicit and systematic (Ehri, 2020). Put all this together and it adds up to systematic synthetic phonics, which has more evidence of effectiveness than other approaches (Buckingham, Wheldall, & Wheldall, 2019).

From a school's point of view, if randomised control trials or scientific research directly comparing two approaches is not perfect – another example is decodable readers – we use deductive logic to make a decision and then collect data, either comparing classrooms or cohorts.

This is not to deny the utility and importance of randomised control trials, it is rather to say that instructional decisions cannot always depend on them alone. Many things we accept as true do not have multiple randomised control trials to support them, mainly because the empirical evidence is sufficiently strong that it would be unethical to conduct an experimental trial, for example, comparing the number of deaths as a result of jumping out of a plane with or without a parachute.

Bridging the research to practice gap: where the 'need to know' rubber hits the road

There is only so much that teachers can do in a 90-minute daily literacy lesson. Therefore, program writers and publishers need to make decisions about trade-offs. What are the non-negotiables and what are the niceties?

People talk a lot about bridging the research to practice gap. Developing a reading program or curriculum is the ultimate expression of translating research into practice: an evidence-based reading program is knowledge translation *ad maximum*.

It is not only about the content, it is equally about the instructional design and bringing these elements together in a way that teachers can deliver with fidelity and that is effective and engaging for students. Content coverage needs to be balanced against mastery and consolidation. Teachers have varying levels of knowledge and expertise so the program cannot assume too much. A program needs to be practical, realistic and effective in all schools with all students.

There is evidence for the positive interaction of teacher knowledge and a rigorously designed and tested program. A study of early literacy outcomes among students with developmental language disorder (DLD) found that students who were given a published evidence-based reading and spelling program had higher achievement than students who were given a custom practitioner-developed explicit literacy instruction program, even though both programs were based on the same fundamental principles. The researchers concluded that the rigour, fidelity, and tight alignment of instruction, assessment and teaching resources offered by the published program contributed to the superior results (Taylor et al., 2021).

Published programs can give teachers assurance and save them time. It's great for well-informed teachers to develop their own materials, especially as a collaborative effort with colleagues. But there is nothing less noble or less virtuous about using a published program. As Louisa Moats has stated, it is a "misconception that ... avoiding published reading programs empowers teachers and enhances the professional status of teaching" (Moats, 2020). Stanislas Dehaene's advice is just as clear: "It doesn't matter if a teacher has prepared their own material, what matters is whether the child has learned" (Dehaene, 2021).

What do teachers really need to know?

A caveat is necessary at this point: the knowledge and concepts in what follows are 'need to know' for all teachers of reading and are relevant for all children. But it must be noted that what most students acquire through high quality initial explicit instruction, statistical learning and pattern recognition, others will need more extensive and specialised explicit instruction to learn. Specialist teachers and practitioners working with children with severe reading difficulties or other special learning needs will need a level of knowledge much more extensive than the general principles described below but will not differ from them in substance.

Teachers need to know how children learn, and how children learn to read

Let's start with how children learn.

At the fundamental level, we want students to remember and recall information, to automatise it, and to be able to apply, generalise and manipulate it. Remembering, recalling and automatising requires memory. Application, generalisation and manipulation requires understanding. David Didau expresses this as learning needing to be durable and flexible (Didau, 2015).

The instructional components in Table 1 are drawn from the broad discipline known as the learning sciences. You may notice that cognitive load is not included here. Cognitive load is not a teaching method, or a thing you do or don't do, but it is an important and well-tested theory that informs instruction (Sweller et al., 2019). Cognitive load is a theory of how and why learning happens or does not happen, whereas this list includes the factors that contribute to or minimise cognitive load.

Table 1. Components of instruction from learning sciences

Attention and active engagement	Feedback and error correction
Spaced repetition and exposure	Explanation
Spaced and regular recall	Relevance
Practice in different contexts	Connections to existing knowledge

The components listed here are common to learning pretty much anything in an educational context, and arguably more broadly. These learning conditions and behaviours have been incorporated into the effective instructional practices that we know variously as explicit instruction or direct instruction, either with capitals or without.

When it comes to the specific task of teaching reading, the principles that underpin effective instruction apply to all students. They support a 'non-categorical' approach – all students benefit from evidence-based instruction and all struggling readers are entitled to timely and effective intervention irrespective of the primary cause or source of their reading difficulties.

Many people are now familiar with the Simple View of Reading. In terms of the principle of simplicity, this theory is invaluable. It says that reading comprehension is the product of word identification and language comprehension (Gough & Tunmer, 1986). Put even more simply, reading requires knowing how to read the words on the page or screen and knowing what they mean.

Let's look at the first part: word recognition.

Learning to read is a specific case of learning in general. The Science of Reading is where the science of learning meets orthography and linguistics.

Young children access meaning via the sound of words. Their reference point is oral language. As they learn the alphabetic principle and learn to decode written words, sounds become bonded to letters, and the unique letter strings in entire words become bonded to meanings. This leads to automatised word reading. Explicit instruction in foundational word recognition skills is essential.

Learning to read: Word recognition

1. *Phonological to orthographic:* Moving from the phonological pathway to the lexical pathway via orthographic mapping.
2. *Building schema for GPCs:* Begin with regularities and add complexities.
3. *Adapting and integrating:* Use 'set for variability' and morphology to read less regular words.
4. *Automatisation:* Practise, practise, practise, ideally with feedback.

As described earlier, evidence supports teaching the regularities of written words first, and then layering levels of complexity as required. This is how systematic synthetic phonics works and why it is so effective. Once children can decode regular words and can use this skill along with their knowledge of high frequency words, they have begun their reading journey and can accommodate extensions and elaborations to that knowledge.

Set for variability is an efficient strategy for reading words with more than one possible pronunciation or that deviate from the most common pronunciation. However, it relies on *vocabulary*. If children have few words in their vocabulary, they will not know whether one pronunciation is more likely to be correct than another. If you have never heard of a pigeon, both 'pijuhn' and 'piggyuhn' would be nonsense words and mispronunciation correction would be impossible.

Again, the emphasis is on practice. Going back to the earlier point, this is a key feature of all learning: repetition, recall, guided practice and independent practice.

Now for the second part of the Simple View equation: knowing and understanding language.

Effective acquisition of the language side of the Simple View of Reading also fits with the general principles of learning. Learning new vocabulary is easier for students who read well because they have automatised decoding and can pay attention to meaning.

Learning to read with comprehension: Language and vocabulary

5. *Exposure:* Most vocabulary and language is learned through reading, but explicit instruction is also necessary.
6. *Matthew effect:* Good readers read more than weak readers and their reading ability grows more quickly.
7. *Lexical quality:* How well words are understood in various contexts.
8. *Facts matter:* Reading comprehension requires both skill/strategy development and topic knowledge.

Effective vocabulary instruction draws students' attention to words, their meanings, and how they are connected to other words, including through morphology. There are some great ways to do this and this type of instruction is particularly important for beginning and struggling readers, and for students learning English as a second language. There is growing evidence for teaching vocabulary in the context of a content-rich curriculum (Catts, 2021-22). However, there is only weak evidence of transfer and generalisation from the explicitly taught words and target words.

Apart from the volume of vocabulary that would need to be taught, as noted above – 8000 word families by the end of primary school – it is also more difficult for classroom instruction to satisfy the learning criteria of repeated exposures over time and in a variety of contexts. This is more likely to happen when students encounter words when reading.

Likewise, lexical quality refers to the numerous ways in which words can be used. The word 'beat' has 11 basic definitions in the *Concise Oxford English Dictionary*. It has dozens of meanings in the full version of the dictionary. There is a limit to the lexical diversity and quality that can be achieved through explicit instruction alone; a great deal of it must be learned through reading. Fortunately, the brain's complementary explicit and implicit learning systems are excellent at this task as long as students have sufficient skill to read independently and sufficient time to do so (Romanovska & Bonte, 2021).

In summary

In order to teach efficiently and effectively, this quote from Devin Kearns resonates strongly: "Simple rules, simple patterns, and massive amounts of practice" (Kearns, 2021).

It is not the case that the details don't matter, or that teaching reading is easy. They do, and it isn't. Good reading programs take years to research and write to ensure they make instruction simple but sophisticated and maximise the benefits of teaching time. They get the right balance of language content and tightly calibrated instructional design to take novice readers on the journey to becoming skilled readers who need increasingly smaller doses of explicit teaching. However, excellent reading instruction is achievable in every classroom by adhering to a set of key principles. The combination of a well-informed teacher and a well-developed program is the winning formula.

It is commendable to read, watch and listen to all the great information available from reputable sources, but there is no need to be overwhelmed by it – there is a clear pathway through it to great teaching by thinking about simplicity and opportunity cost. One way to think of this is to keep the main thing the main thing – and the main thing is getting students reading fluently and with comprehension, and giving them lots of supported opportunities to do so.

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