

The pedagogy of reading

School resources

Literacy is one of the areas of education in which there is a good deal of high-quality research. When considering the pedagogy of literacy, different types of studies are useful. One type of study that has received a good deal of attention recently is the intervention study. Intervention studies examine whether a particular teaching approach or package of teaching is effective. Box 1 provides some guidance on understanding intervention studies. Systematic reviews and meta-analyses draw together evidence over a range of studies, and so provide more generalisable evidence, although it is always worthwhile considering the differences and similarities between the situations described in research studies and your own context.

This research review addresses two key issues with respect to early literacy development: what to teach when teaching reading, and how to teach reading. It will describe what the research says about what to teach in terms of whole language approaches, various types of phonics, teaching letters names versus letter sounds, and oral language. It will then explore different approaches to teaching reading such as small group interventions and peer-assisted strategies, as well as the non-cognitive or social emotional factors that support learning to read.

Box 1: Intervention research in education

Some studies involve testing one group of children before and after a particular intervention. However, others compare the progress of two or more groups, where one or more group acts as a control group. This is useful because it takes account of the amount of improvement that should be expected over time without any intervention. For example, you might compare two classes in the same school, where only one class received a particular reading comprehension programme. It is always important to consider carefully the activity that the control group completes. This is because individuals in the intervention group may seem to make more progress because of factors not relevant to the intervention, such as having more time with teachers or more experience with books. Ideally a control condition should try and match these non-specific factors as far as possible. It is always important to interpret research findings cautiously. While intervention studies are treated as high quality evidence, we need to remember that these studies can only provide evidence that an intervention works in a particular situation, with particular children, when delivered precisely in the way prescribed. Those factors might influence how easily and effectively the intervention can be implemented in your own class. As detailed above, we also need to understand the comparison made in the study – was there a control group, and if so, what did they do?

Part 1: What to teach

Classically, views on how reading should be taught in English have swung between the phonics view, which holds that children should be taught the correspondence between letters and sounds explicitly, and the 'whole language' view, which emphasises the role of meaning as a way for children to discover the links between written and spoken words. This battle was known as the 'Reading Wars'. In the last thirty years, evidence has mounted that children learning to read in English show the best progress when they receive [early and explicit tuition in phonics](#)¹. This is backed up by large scale national reviews in the

USA² and Australia³. Often, teachers have beliefs about phonics teaching which are not supported by research. Some of these are addressed in Box 2.

Box 2: Myths about phonics teaching

- Phonics is boring

Well-designed phonics teaching programmes are engaging and fun. Children who learn to read using phonics actually show more positive attitudes around reading (Chen & Savage, 2014). Giving children the tools to work out unknown words increases their autonomy and freedom in both reading and spelling.

- People who advocate phonics teaching do not want children to read 'real books'

No-one believes that children should not have exposure to a range of good quality texts. Some phonics researchers believe that children should begin to learn to read using decodable texts, or texts in which all the letter sound correspondences are ones the child has been taught. This is typically a very short phase.

- Phonics teaches children to 'bark at print' – in other words, to read without understanding or interest

Phonics teaches children how to decode words. This is a necessary first step in reading with comprehension. If a child cannot read a word, they cannot understand a text.

- Because not all words in English are regular, phonics should be considered just one of a set of many cues to use when reading

It is true that English has a high number of irregular words. However, phonics still provides by far the most reliable way of working out unknown words. Often words that are regarded as irregular have mostly regular letter sound correspondences, or subregularities to which students are sensitive. Sounding out is still useful for irregular words.

Which type of phonics is most effective?

A further question addressed by the research concerns the type of phonics teaching that is most effective. Researchers have made a distinction between embedded phonics, analytic phonics and synthetic phonics.

Embedded phonics involves teaching about letter and sound links incidentally as part of general reading instruction – for example, while reading a storybook with a child. Proponents of embedded phonics highlight that it emphasises how phonics is relevant in the everyday process of reading. However, it is not systematic, which means that teachers do not necessarily ensure that they teach all phonemes and will not introduce them in a set order. It is also potentially a gap-widening teaching approach – children who enjoy books and understand stories might receive a good deal of embedded phonics, while children who are less interested in books and have less good understanding might read shorter and simpler stories and thereby receive less teaching. Over time, the gap between able and less able students would increase.

Analytic phonics differs from embedded phonics in that children receive tuition in phonics which is separate from reading instruction. This is the approach described in the New Zealand teaching document [Sound Sense](#). Children will be taught the sounds that different letters 'make' and encouraged to find sounds within words. Often analytic phonics focuses particularly on letter sounds at the beginning of

words (for example, children might be asked to think of words beginning with 's'), rather than sounds in the middle or end of words. Children might also be encouraged to think about rhyme families (such as light, right, might, flight). There tends to be a focus on reading words by sight, or sometimes on using partial decoding and context in combination (the 'three cueing' or 'searchlights' model). This model argues that words can be recognised by using phonological, visual, semantic or grammatical information. However, it does not highlight that phonics-based strategies are considerably more reliable and specific sources of information than semantic or grammatical context, even in a language as irregular as English.

Synthetic phonics uses a more systematic approach to phonics teaching. Children are taught the links between letters and sounds. These letters are taught quickly (a new letter introduced each day rather than weekly) and children are explicitly taught to blend and segment words using phonics strategies from early in the teaching programme. For example, once the children have learnt the first six sounds (s, a, t, p, i and n), they are encouraged to decode words such as 'at', 'it', 'tap' and 'sit'. They are encouraged to use segmenting strategies to spell words rather than learning to spell words by rote. Evidence over the last twenty years has clearly demonstrated that **providing systematic, explicit teaching in phonics (which can include either analytic or synthetic phonics) is more effective than whole language or embedded phonics approaches**⁴. There is also good evidence for the superiority of synthetic phonics to analytic phonics, though this evidence is less widely replicated⁵.

Letter names versus letter sounds

An essential part of teaching phonics is teaching the letters that make up the alphabet. For each letter, there are two associations – the letter name and the letter sound (the phoneme or phonemes the letter represents in words). Normally, there is a one-to-one correspondence between letters and phonemes, but not always: the letter combinations 'th', 'sh' and 'ch' correspond to single phonemes, while the letter 'X' represents a two-phoneme combination, /ks/. There are also several vowel sounds represented by two letters, such as 'ai', 'oo' and 'or'. This means that there are more letter sounds to learn than letter names. Teaching letter names and sounds separately helps to avoid learning confusion. Analytic phonics approaches generally advise teaching letter names first. Synthetic phonics programmes focus on letter sounds as being the most important association with each letter, and so typically would teach letter sounds rather than letter names. In many countries, letter names are typically taught before letter sounds (USA, Australia, New Zealand), while in some countries, letter sounds are taught first (UK, Germany). The two approaches do not seem to result in significantly different levels of letter knowledge or success in reading and spelling, so there is no clear evidence to suggest that one way is better than the other. However, the two approaches do result in characteristically different early spelling errors. For example, a child in the US system may spell 'bean' as 'BN', representing the full letter name 'B', while a child in the UK system may spell 'tractor' as 'tract', assuming that the 'tuh' sound represents the whole final syllable⁶.

Oral language teaching

As we know from the [simple view of reading](#), decoding words is only one element of successful reading. It is also crucial that a child is able to understand what he or she is reading. This depends upon language comprehension skills. In fact, oral language is crucial not just for reading comprehension, but for all elements of learning in general. We might assume that children come to school equipped with the oral language skills to understand classroom activities, but in fact that is often not the case. A significant minority of children come to school with limited language skills⁷. A further group come to school having spoken a language other than English in the home. There is evidence that tuition focused on early oral language skills can have a significant positive impact on later literacy skills, particularly for children who begin school with low language⁸.

Vocabulary

Understanding and knowing spoken words is vital to successful reading and spelling, but there is wide variation in children's vocabularies at the start of school, due to a variety of factors. We know from research that there are multiple ways in which teachers can work to boost vocabulary, including maximising opportunities for incidental learning, direct instruction and teaching strategies to help children work out word meanings for themselves. Each of these approaches is useful but teaching word learning strategies has the added benefit of boosting future word learning as well⁹. These strategies can include morphological analysis, described below, and contextual analysis.

A teacher will never have time to teach every vocabulary word explicitly so must select a few words to focus on. Beck and colleagues' [Three-Tiers Framework](#) provides a useful way to do this¹⁰. They argue that teachers should focus on words that are less common in spoken than written language and that are found in a wide variety of contexts. This will vary with the age of the child.

Teaching about morphemes and morphological analysis

As highlighted in Theories of early literacy development, English is a language that represents both phonological (sound) and morphological (meaning) information in its writing system. For example, the past tense morpheme is represented as 'ed' consistently despite differences in pronunciation (as in hunted, skipped, grabbed, for example). There is abundant research showing the importance of knowledge about morphemes for reading and writing. For example, understanding morphemes is useful in learning new vocabulary, spelling and reading comprehension. However, in terms of pedagogical approaches and interventions, the research is less well developed and often focuses on students with literacy difficulties. It is therefore difficult to recommend a particular approach to teaching about morphemes. However, teachers are encouraged to teach about word structure explicitly, both in terms of highlighting prefixes, suffixes and root words, and in terms of learning about how spelling represents these word parts consistently. For example, the 'shun' sound in magician is spelled this way (rather than tion or sion) because it describes a person's occupation.

The role of knowledge

There is extensive evidence that students show better reading comprehension when they have relevant [background knowledge](#) about a topic. This may be knowledge about genre (for example, that fairy tales begin with 'once upon a time' and end with 'happily ever after') or topic specific knowledge. For example, children will find it harder to understand a story about camping if they have never been camping themselves and do not know how food is prepared or where you sleep when camping. This is important to remember, particularly when teaching a class of children with widely varying background experiences. Teaching and highlighting relevant broader knowledge can help to improve comprehension for all and reduce the differences between children with different backgrounds.

Part 2: How to teach

Some care is needed when making research-informed decisions on how to teach. There is relatively little research on how to teach, rather than what to teach. One study¹¹ examining the behaviours of teachers who were highly effective in improving literacy outcomes lists the following elements of effective instruction: spending more time on reading and writing, particularly on extended tasks, rather than related activities; ensuring that children are given texts appropriate for their reading level; modelling target literacy behaviours; and encouraging thoughtful discussion. Often research studies employ full programmes or sets of activities in their intervention research, rather than testing the efficacy of individual teaching activities. This makes it difficult to draw conclusions about which elements of an intervention were most effective. In the sections below we have focused on reviews summarising a range of studies to ensure our conclusions are well founded.

Choice of reading material

There is a longstanding debate on the benefits and drawbacks of different types of reading material. Many people argue that children should be taught using levelled readers or reading schemes, and some go further in saying that children should begin by reading fully decodable books – that is, books containing only words decodable using the phonics rules that child knows and a few key sight words. This is often associated with a synthetic phonics approach. The benefit of these texts is that they provide an opportunity for children to use their phonics knowledge in context, without the confusion that can occur from the many irregular words in English. On the other side of the debate is the argument that children should be experiencing rich, high quality literature rather the somewhat stilted, artificial language sometimes found in decodable texts. In fact, few people would argue against the value of high-quality literature. Decodable readers have a place in building the phonics skills and confidence of beginning readers, but most students should move beyond them fairly quickly.

Whole class reading

One way to ensure that children are experiencing high quality literature is by reading to them. Most teachers read aloud to their class frequently. This is a valuable activity: it is an opportunity to introduce enjoyable texts to children, to model reading with expression, and to present a wide range of vocabulary in context. Research suggests that teachers reading to their class has a positive effect on both reading skills and oral language¹².

Guided reading

Guided reading is a small group activity which is led by a teacher. Typically, groups are chosen so that they contain students of a similar reading level. Students each have a copy of the same book and follow along together – either reading aloud or silently. The teacher can support comprehension by asking questions and encouraging discussion about the book. Guided reading is extremely widely used and aligns well with some general teaching principles – the teacher can provide differentiated support for students at different levels of achievement, and students can learn from their peers. However, the research evidence for guided reading is mixed¹³. It appears that the effectiveness depends on the quality of the teaching provided: providing training and structure around how to carry out guided reading significantly increases its effectiveness¹⁴.

Paired reading

Several studies have demonstrated that paired reading can be a useful literacy teaching approach, particularly for developing reading comprehension skills. Students benefit both from reading aloud and from monitoring another student's reading, and then they can work together on activities such as summarising, prediction and monitoring their own and their partner's comprehension. However, there are some elements that are important for the effectiveness of this approach. Students need to be trained how to provide appropriate feedback to each other, and to be given a specific task when working in a pair. This allows all of the students in the class to get plenty of practice and feedback on their reading, while also freeing up the teacher to move around the class and monitor a much larger proportion of students' reading.

Independent reading

Independent reading is perhaps the most important element of literacy development. When children read independently, they consolidate and enhance their knowledge of vocabulary and written text conventions. Once a student is past the initial stages of learning to read, the amount of independent reading they do is a key predictor of their academic progress. However, with independent reading more than any other

type of reading, it is crucial that the text is at the appropriate level. A reader needs to be able to decode or recognise 90-95% of the words in the text to allow them to infer the meanings of the remaining words.

Small group intervention

A large proportion of the research evidence for the effectiveness of teaching approaches comes from studies where a researcher or a teaching assistant delivers an intervention to small groups of students (see the box above on intervention studies). The US Reading Panel argued that small group delivery was the most effective approach for children who are at risk of literacy difficulties¹⁵. Small groups allow targeted teaching and close monitoring of student understanding, but they also allow students to learn from one another and view different approaches to problems. However, they are highly demanding of teacher time.

The relationship between reading and writing

Reading is the process of understanding the meaning in text. In contrast, writing is the process of translating thoughts or ideas into text. It is tempting to think of these two processes as mirror images of one another, but they are different in key ways. Spelling words is harder than reading words, because there are many ways in which the same sounds can be spelt, and because it places higher demands on working memory and motor skills such as writing. Reading text allows you to use context to support word recognition, but the same is not true of writing text. For these reasons, phonics skills are particularly important in early spelling and writing.

The role of motivation and self-belief in reading and writing

There are at least three ways in which motivation can influence literacy: highly motivated readers tend to read more, to engage more fully with the text they are reading, and to read a wider variety of texts¹⁶. We also know that there is a bidirectional relationship between academic success and [motivation](#) – children who are good at reading are more motivated to read and children who are motivated to read end up improving their reading skills more¹⁷. This suggests that it is important to pay attention to motivational factors as well as basic skills when teaching reading. However, we also know that the type of motivation is important. We can distinguish between intrinsic motivation (reading for curiosity, challenge or enjoyment) and extrinsic motivation (reading to gain rewards, to pass exams or for compliance). As you might expect, intrinsic motivation is more highly associated with good reading outcomes than extrinsic motivation, and therefore it is particularly important to encourage intrinsic motivation¹⁸. Ways to foster intrinsic motivation include focusing on the value of the task, allowing students autonomy in their reading (for example, choosing their own reading material), providing interesting reading material, and generally treating reading and writing as a pleasurable activity rather than a chore. Supplying extrinsic rewards for reading such as points, stickers or rewards should be used sparingly. An extrinsically motivated learner may increase the time spent on a task but not be highly engaged with it. However, there are some situations where extrinsic rewards may be necessary (for example, to get disaffected students to return to reading). There are some reading intervention programmes which include elements of motivation as part of the teaching approach – for example, [Concept Oriented Reading Instruction](#) and [Accelerated Reader](#). However, as yet there is little research investigating how the motivational component of these programmes affects performance.

A second factor closely associated with motivation is self-concept – that is, an individual's belief about their reading and writing abilities. Students who regularly experience failure in reading and writing tasks will tend to believe that they are likely to fail on new tasks set for them, which leads to a lack of perseverance and more anxiety around reading and writing. This may create a vicious cycle where children are not practising reading to develop, resulting in poorer reading skills, and potentially increased negative feelings towards reading¹⁹. There is some evidence that focusing on improving self-belief can

help to make reading and writing instruction more effective²⁰. Ways to improve [self-belief](#) include mastery experiences (success at challenging but achievable tasks), modelling effective performance, and verbal and social encouragement²¹.

Glossary

Analytic phonics: a type of phonics tuition in which children are encouraged to do a range of tasks linking sounds and letter patterns. Often this focuses on initial word sounds, and can involve onset-rime segments as well as phonemes. Often contrasted with synthetic phonics.

Control group: a group of participants in an intervention study who do not receive the experimental intervention. They may receive another intervention (a treated control group), no intervention (untreated control group) or they may receive the same intervention after the study has finished (waiting list intervention). Control groups are used to take account of how much variation or improvement may be expected over time without the specific experimental intervention.

Cueing system: a strategic approach to reading in which children are encouraged to make informed guesses about what words are based on multiple pieces of information, including initial letters, overall word length, sentence context and book topic.

Embedded phonics: teaching about letter and sound links incidentally as part of general reading instruction – for example, while reading a storybook with a child.

Intervention study: research in which a group of participants receive a specific treatment and are assessed before and after the treatment to understand whether the treatment has changed behaviour. It is good practice for an intervention study to include a control group.

Synthetic phonics: a type of phonics tuition which includes explicit teaching linking phonemes and graphemes as well as tuition in how to blend and segment phonemes in words. Often contrasted with analytic phonics.

Whole language: A type of literacy tuition in which children are taught to read through a focus on reading whole words in sentence and book contexts. Now widely discredited as less effective than phonics based approaches.

Endnotes

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