

IMPROVING LITERACY IN KEY STAGE ONE

Guidance Report



E ducation
E ndowment
F oundation

CONTENTS

AUTHORSHIP

This guidance report was written by Professor Steve Higgins, Peter Henderson, Thomas Martell, Dr Jonathan Sharples, and Dr David Waugh.



This guidance report is one of several resources that the EEF has produced on the theme of literacy. For more on literacy from the EEF please visit: <https://educationendowmentfoundation.org.uk/evidence/school-themes/literacy/>

Part of the North East Primary Literacy Campaign co-funded by the EEF and Northern Rock Foundation.



The citation for this guidance report should be 'Education Endowment Foundation (2016). *Improving Literacy in Key Stage One*. London: Education Endowment Foundation.'

Summary of recommendations	6
Foreword	8
Introduction	9
Recommendations	
Recommendation 1	Develop pupils' speaking and listening skills and wider understanding of language 12
Recommendation 2	Use a balanced and engaging approach to developing reading, which integrates both decoding and comprehension skills 13
Recommendation 3	Effectively implement a systematic phonics programme 14
Recommendation 4	Teach pupils to use strategies for developing and monitoring their reading comprehension 16
Recommendation 5	Teach pupils to use strategies for planning and monitoring their writing 17
Recommendation 6	Promote fluent written transcription skills by encouraging extensive and effective practice and explicitly teaching spelling 18
Recommendation 7	Use high-quality information about pupils' current capabilities to select the best next steps for teaching 20
Recommendation 8	Use high-quality structured interventions to help pupils who are struggling with their literacy 22
Acting on the evidence	24
How was this guidance compiled?	25
Glossary	26
References	28

SUMMARY OF RECOMMENDATIONS

This Education Endowment Foundation (EEF) guidance report contains eight recommendations regarding the teaching of literacy to pupils aged between five and seven.

The recommendations are arranged in five groups:



Recommendations related to speaking and listening



Recommendations related to reading



Recommendations related to writing



Recommendations related to assessment and diagnosis



Recommendations related to structured one to one/small group interventions

For each recommendation, we have provided a statement regarding the strength of the evidence supporting it. This statement rates the strength of the evidence on a five-point scale from “very limited” to “very extensive”.

Overleaf is a summary of the recommendations.

1



Develop pupils' speaking and listening skills and wider understanding of language

A focus on developing oral language skills is especially important for the development of a range of reading and writing skills in this age group.

Useful speaking and listening activities include:

- pupils read books aloud and are encouraged to have conversations about them;
- a teacher models inference-making by asking relevant questions aloud and answering them herself;
- pupils engage in paired or group work so they can share the thought processes that led them to make inferences;
- activities which extend pupils' spoken and receptive vocabulary; and
- a teacher encourages children to clearly articulate what they are going to say in their writing.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 12

2



Use a balanced and engaging approach to developing reading, which integrates both decoding and comprehension skills

Both decoding (the ability to translate written words into the sounds of spoken language) and comprehension (the ability to understand the meaning of the language being read) skills are necessary for confident and competent reading, but neither is sufficient on its own.

It is also important to remember that progress in literacy requires motivation and engagement, which will help children to develop persistence and enjoyment in their reading.

Children will need a range of wider language and literacy experiences to develop their understanding of written texts in all their forms. This should include active engagement with different media and genres of texts and a wide range of content topics.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 13

3



Effectively implement a systematic phonics programme

Systematic phonics approaches explicitly teach pupils a comprehensive set of letter-sound relationships through an organised sequence.

The following should be considered when teaching a phonics programme.

- A phonics programme will only be effective if it is delivered using effective pedagogy. How phonics is taught is important.
- Pupils' progress should be monitored to check whether it can be accelerated or extra support is required.
- Lessons should engage pupils, develop persistence and perseverance, and be enjoyable to teach.
- All staff involved in teaching the programme should have received training on how to deliver the programme.
- The programme should be implemented as intended by the developer.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 14

4



Teach pupils to use strategies for developing and monitoring their reading comprehension

Reading comprehension can be improved by teaching pupils specific strategies that they can apply to both check how well they comprehend what they read, and overcome barriers to comprehension. These include:

- inference,
- questioning,
- clarifying,
- summarising, and
- predicting.

Teachers could introduce these strategies using modelling and structured support, which should be strategically reduced as a child progresses until the child is capable of completing the activity independently.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 16

5



Teach pupils to use strategies for planning and monitoring their writing

Pupils' writing can be improved by teaching them to effectively plan and monitor their writing. Teaching a number of different strategies is likely to help, depending on the current skills of the writer. These include:

- pre-writing activities;
- structuring text;
- sentence combination;
- summarising;
- drafting, editing and revising; and
- sharing.

Teachers could introduce these strategies using modelling and structured support, which should be strategically reduced as a child progresses until the child is capable of completing the activity independently.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 17

6



Promote fluent written transcription skills by encouraging extensive and effective practice and explicitly teaching spelling

Transcription refers to the physical processes of handwriting or typing, and spelling.

Children must develop their fluency in these skills to the point that they have become automated. If children have to concentrate to ensure their transcription is accurate, they will be less able to think about the content of their writing.

A large amount of practice, supported by effective feedback, is required to develop fluency. Achieving the necessary quantity of practice requires that children are motivated and fully engaged in the process of improving their writing.

Spelling should be explicitly taught. Teaching should focus on spellings that are relevant to the topic or genre being studied.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 18

7



Use high-quality information about pupils' current capabilities to select the best next steps for teaching

Collect high quality, up-to-date information about pupil's current capabilities, and adapt teaching accordingly to focus on exactly what the pupil needs to progress. This approach is more efficient because effort is spent on the best next step and not wasted by rehearsing skills or content that a child already knows well.

Teaching can be adapted by:

- *Changing the focus.* Models of typical literacy development can be used to diagnose pupils' capabilities and select a particular aspect of literacy to focus on next.
- *Changing the approach.* If a pupil is disengaged or is finding activities too easy or too hard, adopt a different approach to teaching the same aspect of literacy.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 20

8



Use high-quality structured interventions to help pupils who are struggling with their literacy

Schools should focus on core classroom teaching strategies, which improve literacy for the whole class. However, even when excellent classroom teaching is occurring, it is likely that a small number of children will also require more focused literacy instruction to make expected progress.

The first step should be to use accurate diagnosis of capabilities and difficulties to match pupils to appropriate interventions.

There is a strong and consistent body of evidence demonstrating the benefit of one-to-one or small-group tutoring using structured interventions for children who are struggling with literacy.

EVIDENCE STRENGTH

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

see page 22

FOREWORD

Good literacy skills provide us with the building blocks not just for academic success, but for fulfilling careers and rewarding lives. Yet despite our best efforts, a disadvantaged child in the North East is still more than twice as likely as their classmates from more advantaged homes to leave primary school without reaching the expected levels in reading and writing.

At the Education Endowment Foundation (EEF), we believe the best way to break this link between family income and educational attainment is through better use of evidence: looking at what has—and has not—worked in the past can put us in a much better place to judge what is likely to work in the future.

But it can be difficult to know where to start. There are thousands of studies of primary literacy teaching out there, most of which are presented in academic papers and journals. Teachers are inundated with information about programmes and training courses, all of which make claims about impact. How can anyone know which findings are the most robust, reliable and relevant to their school and pupils?

This is why we've produced this guidance report. It offers eight practical evidence-based recommendations – which are relevant to all pupils and particularly to those struggling with their literacy. To develop the recommendations we reviewed the best available international research and consulted experts to arrive at key principles for effective literacy teaching.

These recommendations are central to our North East Primary Literacy Campaign, a five-year project and a £10m investment in the region. Over the coming months, all 880 schools in the North East will have the opportunity to work with local partner organisations to use the guidance to reflect on and improve their literacy teaching. Schools with large numbers of disadvantaged pupils will also receive direct funding to implement the most promising evidence-based literacy programmes.

I hope this booklet, and the Campaign, will help to support a consistently excellent, evidence-informed primary system in the North East, that creates great opportunities for all children, regardless of their family background.

Sir Kevan Collins

Chief Executive
Education Endowment Foundation

INTRODUCTION

WHAT IS THIS GUIDANCE FOR?

This guidance has been produced to support the Education Endowment Foundation's North East Primary Literacy Campaign. In November 2015, the EEF and Northern Rock Foundation launched a £10 million campaign to improve the primary literacy outcomes for disadvantaged children in the North East. One in three primary school children in the North East of England—more than 66,000 children—are classified as 'disadvantaged' and there is a significant literacy gap between them and their better-off classmates.

The five-year campaign aims to reach all 880 primary schools in the region, working with them and others to help narrow this gap, building on the excellent practice that already exists. In 2014, there were 106 primary schools in the North East where the attainment of disadvantaged pupils at Key Stage 2 exceeded the national average for non-disadvantaged pupils.

The North East Primary Literacy Campaign combines three key elements.

- **Evidence-based guidance reports and resources:** recommendations about how to improve literacy teaching using the best available evidence.
- **Place-based advocacy:** working with local partners to support schools to improve literacy attainment using the recommendations in the guidance reports.
- **Direct support for programmes:** new grants to test and scale up evidence-based programmes in schools.

This guidance document provides the foundation for the first term of the campaign. It contains eight practical recommendations to help primary schools in the North East boost the literacy skills and attainment of pupils in Key Stage 1. These recommendations are based on the best available evidence examining the teaching of early literacy. We recognise that the effective implementation of these recommendations—such that they make a real impact on children—is both critical and challenging. Therefore, the EEF is partnering with a range of organisations in the North East to help schools with implementation. These partners will contribute their expertise and build on their trusted local relationships to 'bring the evidence to life' in the classroom. The lessons from this advocacy work will be shared more widely to inform the implementation of the guidance in other schools and areas.

WHAT DOES THIS GUIDANCE COVER?

This is the first of three reports that the EEF will publish during the campaign. It broadly concerns the teaching of literacy to pupils between the ages of five and seven. However, it may also be applicable to older pupils who have fallen behind their peers, or younger pupils who are making rapid progress. Two additional reports will cover the typical requirements of teaching literacy in the early years (ages 3–5) and Key Stage 2 (ages 7–11), and will be released in 2017.

This report is not intended to provide a comprehensive guide to literacy provision in primary schools. The recommendations represent eight 'lever points' where there is useful evidence about literacy teaching that schools can use to make a significant difference to pupils' learning. The report focuses on pedagogy and approaches that are supported by good evidence; it does not cover all of the potential components of successful literacy provision. Some will be missing because they are related to organisational or leadership issues; other areas are not covered because there is insufficient evidence to create an actionable recommendation in which we have confidence. Other important issues to consider include, but are not limited to, leadership, staff deployment and development, parental engagement, and resources and technology.

This guidance draws predominately on studies that feed into the Teaching and Learning Toolkit produced by the EEF in collaboration with the Sutton Trust and Durham University. As such, it is not a new study in itself, but rather is intended as an accessible overview of existing research with clear, actionable guidance. More information about how this guidance was created is available at the end of the report.

WHO IS THIS GUIDANCE FOR?

This guidance is aimed primarily at literacy coordinators, headteachers, and other staff with leadership responsibility in primary schools. Senior leaders have responsibility for managing change across a school so attempts to implement these recommendations are more likely to be successful if they are involved. Classroom teachers will also find this guidance useful as a resource to aid their day-to-day literacy teaching.

It may also be used by:

- governors and parents to support and challenge school staff;
- programme developers to create more effective interventions and teacher training; and
- educational researchers to conduct further testing of the recommendations in this guidance, and fill in any gaps in the evidence.

HOW THIS GUIDANCE REPORT IS STRUCTURED

The eight recommendations are presented in five groups, which are represented by five symbols.



Recommendations related to speaking and listening



Recommendations related to reading



Recommendations related to writing



Recommendations related to assessment and diagnosis



Recommendations related to structured one to one/small group interventions

For each recommendation, we have provided a statement regarding the strength of the evidence underpinning that recommendation, and an "evidence summary" box that describes the supporting evidence. This statement was selected from a series of five possible options, of decreasing strength. The statements range from very extensive to very limited.

More information about the process used to create these statements is available in the "How was this guidance compiled?" section of the report on page 25.



1

VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED



DEVELOP PUPILS' SPEAKING AND LISTENING SKILLS AND WIDER UNDERSTANDING OF LANGUAGE

A focus on developing oral language skills is important for pupils in this age group. It will contribute to the development of essential language knowledge, comprehension skills, and the expressive language capabilities that support writing.¹

There is promising evidence that reading comprehension can be improved with targeted teaching that improves pupils' speaking and listening skills.² Teachers could use approaches such as:³

- pupils reading books and stories aloud and being encouraged to have conversations about them with their teacher and peers;
- the teacher models the process of making inferences (using information in a text to arrive at another piece of information that is implicit) by asking relevant questions aloud and answering them themselves;
- pupils engaging in paired or group work so they can share the thought processes that lead them to make inferences; and
- activities that extend pupils' spoken and receptive vocabulary (approaches that explicitly aim to develop vocabulary work best when they are related to current topics in the curriculum and there are opportunities to practise using new vocabulary).

Speaking and listening activities can support pupils to practise essential skills for effective writing. Writing requires the consideration of purpose and audience, and the co-ordination of meaning, form, and structure. The co-ordination of these concepts is a complex, yet essential, skill that can be practised through purposeful speaking and listening activities for writing. For example, a teacher could encourage children to verbally articulate their ideas, which the teacher then puts into writing while explaining sentences and demonstrating how to construct them.⁴

EVIDENCE SUMMARY

This recommendation is based on extensive evidence from nine meta-analyses that include studies of pupils aged 5–7. These studies examine a range of areas related to speaking and listening skills, and a range of outcomes including reading and writing.



VERY EXTENSIVE
EXTENSIVE
MODERATE
LIMITED
VERY LIMITED

2

USE A BALANCED AND ENGAGING APPROACH TO DEVELOPING READING WHICH INTEGRATES BOTH DECODING AND COMPREHENSION SKILLS

There is a broad consensus, supported by research evidence, that reading requires both decoding (the ability to translate written words into the sounds of spoken language) and comprehension (an understanding of the language being read).⁵ Comprehension requires an understanding of the form of the language, which is composed of morphology and syntax, the meaning of relevant vocabulary and the context to the text. Morphology refers to the arrangement of the smallest units of words that contain meaning, such as the 'root' word, 'child', and the affix, '-ish', which in combination make the new word, 'childish'. Syntax refers to how words are combined and organised into phrases and sentences.

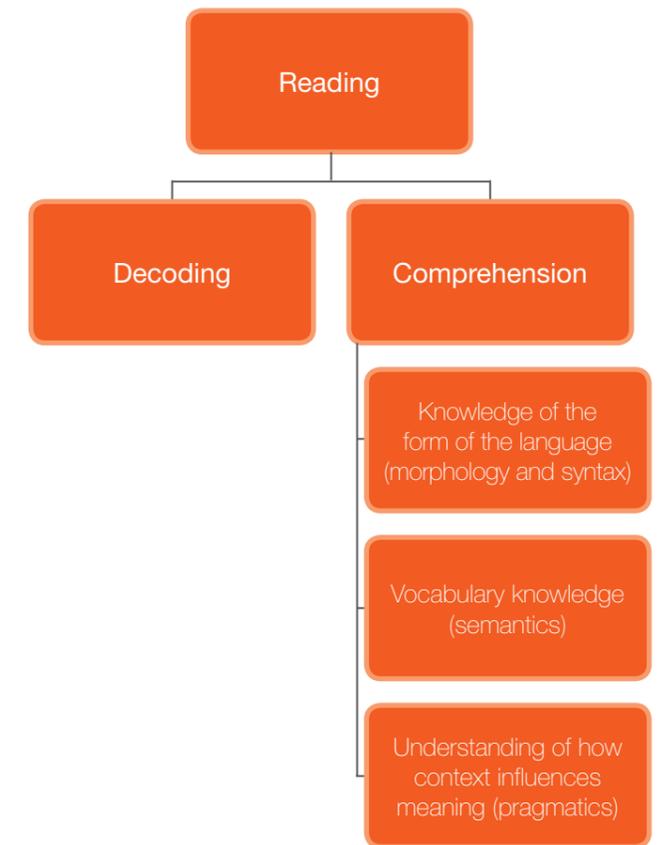
Both decoding and comprehension are necessary, but not sufficient, to develop confident and competent readers. It is also important to remember that progress in literacy requires motivation and engagement, both of which help children to develop persistence and resilience as well as enjoyment and satisfaction in their reading. If pupils are not making expected progress it may be that they are not engaged in the process, and require a different approach that motivates them to practise and improve (see recommendation 7).

EVIDENCE SUMMARY

The evidence for including a combination of both decoding and comprehension-led approaches in teaching reading is extensive. There is little evidence regarding precisely how these approaches should be integrated, or exactly which skills should be taught and when.

Children also need a wide range of language and literacy experiences to develop their understanding of written text in all its forms. This should include active engagement with different media and genres of texts and a wide range of content topics. Pupils should read both narrative (e.g. fictional stories and poetry) and informative texts (e.g. news articles and speeches). Introducing children to a range of texts and reading experiences could support the development of pupils' reading comprehension, and their inference skills in particular.⁶

FIGURE 1: A BALANCED APPROACH TO READING





EFFECTIVELY IMPLEMENT A SYSTEMATIC PHONICS PROGRAMME

There is strong evidence to support the use of a systematic phonics programme with pupils in Key Stage 1.⁷ The purpose of phonics is to quickly develop pupils' phonemic awareness, which is their ability to hear, identify, and use phonemes (the smallest unit of spoken language), and to teach them the relationship between phonemes and the graphemes (a letter or combination of letters used to represent a phoneme) that represent them.

Systematic phonics approaches explicitly teach pupils a comprehensive set of letter-sound relationships through an organised sequence. This often means teaching the skills of decoding new words by sounding them out, and combining or 'blending' the sound-spelling patterns. It is necessary to teach these skills explicitly, but pupils should also have the opportunity to apply and practise these skills during normal reading and writing activities.⁸ Teachers could support pupils to practise by providing them with text containing words that can be decoded using the letter-sound patterns they have already been taught, or by having children write their own stories using the letter-sound combinations taught and then reading their own and others' stories.⁹ The goal is to improve the fluency (speed) as well as accuracy, of pupils' decoding to the point that it becomes automatic and does not require conscious effort.



EVIDENCE SUMMARY

The use of a systematic phonics programme is supported by very extensive evidence. Seven meta-analyses, which include studies of 5-7-year-old pupils, have consistently demonstrated the impact of phonics on early reading.

Ideally, schools should use a systematic phonics programme that has been rigorously evaluated. However, there are still only a small number of phonics programmes that are available in the UK for which there is evidence of effectiveness.¹⁰ If your school is using, or considering, programmes that do not have secure evidence of effectiveness, it is worth checking whether they include these common characteristics of effective programmes.

- A phonics programme will only be effective if it is delivered using effective pedagogy. The research clearly indicates that how phonics is taught is important.¹¹
 - Pupils' progress is monitored to check whether it can be accelerated or whether extra support is required. Teaching should be responsive to diagnosis of emerging need and targeted to pupils' current capabilities to ensure that it is efficient (**see Recommendation 7**). This might be easier in a phonics programme that provides guidance on how to place pupils into flexible instructional groups and how to pace teaching.¹²
 - The motivation and engagement of both teachers and pupils in the programme is important. Lessons should engage pupils, develop persistence and perseverance, and be enjoyable to teach.
- All staff involved in teaching the programme should be sufficiently trained to do so, and have both the pedagogical skill and content knowledge required to teach the programme. Some phonics programmes require a sophisticated technical understanding of phonetics.¹³
- The programme should be implemented as intended by the developer. Modifications to the programme could reduce its impact.

BOX 1: ARE SOME TYPES OF PHONICS TEACHING BETTER THAN OTHERS?

A distinction is sometimes made between synthetic and analytic phonics. Synthetic phonics is a form of phonics teaching in which sounding-out is used. It teaches children to recognise phonemes discretely and match them to their graphemes, and then the skill of blending the phonemes together into words. The classic example is 'kuh - a - tuh'—'cat'. In analytic phonics, teachers show children how to deduce the common letters and sounds in a set of words which all begin (or, later, end) with the same letter and sound, for example, 'pet', 'park', 'push', and 'pen'. Only a few studies have compared synthetic and analytic phonics, and there is not yet enough evidence to make a confident recommendation to use one approach rather than the other.¹⁴ Many phonics programmes involve a combination of both approaches.



TEACH PUPILS TO USE STRATEGIES FOR DEVELOPING AND MONITORING THEIR READING COMPREHENSION

A successful reader will monitor their understanding of what they are reading and review the text when something does not make sense. Reading comprehension can be improved by teaching pupils specific strategies that they can apply to both check how well they comprehend what they read, and overcome barriers to comprehension.¹⁵ These strategies are:

- **Inference**—teaching pupils to infer the meaning of sentences from their context, and the meaning of words from spelling patterns.
- **Questioning**—setting questions for children to answer as they read a text (such as ‘Why did Jack and Jill go up the hill?’). This helps to ensure they focus on understanding the most important content in a text. Children can also be taught how to generate their own questions about a text in order to check their comprehension. Teachers can arrange collaborative learning sessions, where pupils ask each other questions about the text in pairs or small groups.
- **Clarifying**—encouraging pupils to identify areas of uncertainty and seek information to clarify them, perhaps through discussion as a group.
- **Summarising**—teaching pupils to succinctly describe the meaning of sections of text. This can be attempted using graphic organisers, which use diagrams to illustrate concepts and the relationships between them. Examples of graphic organisers include storyboards that describe the sequence of events in a text, or story maps that describe the main components of a text, such as characters, setting, genre, and plot.
- **Prediction**—encouraging pupils to think of ‘what if?’ or ‘what next?’ questions. Good readers use information from the text to make predictions about what will come next, and then revise their predictions as they read.

These strategies can be taught independently, but pupils should also be taught how to combine strategies to develop effective comprehension of different texts. The effectiveness of teaching pupils to integrate multiple strategies is well-supported by research evidence, and is likely to be more effective than relying on single strategies in isolation.¹⁶ Ultimately the aim is for pupils themselves to take responsibility for automatically using these strategies to monitor and improve their reading comprehension.¹⁷

The potential impact of these approaches is very high, but can be difficult to achieve as they require pupils taking greater responsibility for their learning. The aim is for them to increase the fluency of these skills and techniques so that they become automatic. There is no simple method or trick for this. One approach is to introduce children to these strategies using explicit models. For example, a teacher could model how they would attempt to understand a text using questioning.¹⁸ Children should then be allowed to practise these skills with support and feedback from their teacher or collaborative groups of their peers.

EVIDENCE SUMMARY

Extensive evidence from 8 meta-analyses has consistently demonstrated the impact of teaching metacognitive strategies for reading comprehension. These include more studies of older pupils, but also include studies of 5-7 year old pupils.



TEACH PUPILS TO USE STRATEGIES FOR PLANNING AND MONITORING THEIR WRITING

Writing is a very challenging skill to learn and there is less evidence about the most effective ways to teach writing than there is about reading. Nevertheless, access to effective writing instruction is especially important in an era when high-stakes tests depend greatly on writing skill.

Encouraging children to manage and monitor aspects of their writing is a key step. A number of different strategies are likely to help, depending on the current skills of the writer.¹⁹

- **Prewriting activities**—engaging children in activities prior to writing that help them think of and organise their ideas. This can involve tasks that encourage them to remember what they already know, find out about a topic they are not familiar with, or arrange their ideas visually (for example, by using a planning tool or graphic organiser) before writing.²⁰
- **Understanding text structure, and how texts in different genres are formed**—providing pupils with models of simple structures for different types of text. Studies show young children benefit from explicit teaching about the structure of narrative and expository texts.²¹
- **Sentence construction, completion and combination**—children progress from constructing simple sentences to being able to combine sentences with more complex grammatical structures. Teachers could model these processes, for example, by explicitly demonstrating how to combine several related, simple sentences to make more complex ones. Teachers should encourage pupils to do this on their own as they write.²²
- **Summarising**—explicitly teaching pupils how to summarise their message by identifying the key points. This allows them to practise accurately communicating key messages in a concise and clear way.
- **Drafting, revising and editing**—helping pupils to get their ideas written down as a first draft which they can then edit and revise.
- **Sharing**—instructing pupils to share, read, and edit each other’s work.

Children need to be introduced to, then practise, these skills with feedback from the teacher and from their peers. The aim is for them to increase the fluency of these skills and techniques so that they become automatic. The teacher should provide appropriate initial support that is gradually reduced so the child is ultimately capable of completing the activity independently. Examples of initial support that a teacher could provide include:

- pre-teaching of difficult-to-spell vocabulary;
- graphic organisers to help pupils gather initial ideas; and
- help with an outline or sentence starters.

EVIDENCE SUMMARY

There is moderate evidence for the impact of teaching planning and monitoring strategies for writing from three meta-analyses, but only a few studies involved 5–7-year-old children.





PROMOTE FLUENT WRITTEN TRANSCRIPTION SKILLS BY ENCOURAGING EXTENSIVE AND EFFECTIVE PRACTICE AND EXPLICITLY TEACHING SPELLING

Writing is a physical task as well as an intellectual one. “Transcription” refers to the physical skills involved in writing and the skill of spelling words correctly. Pupils must learn to form letters and spell words correctly, write in joined-up handwriting, and use a keyboard.

Accurate letter formation is an essential early skill that forms the basis of a fluent handwriting style. Pupils should have regular practice of forming letters correctly, and should be moving on to forming joined-up handwriting.

It is critical that children achieve sufficient fluency in transcription skills that they become automatic. Automaticity is achieved when children do not have to concentrate on transcription to ensure accuracy, and are able to write or type texts at speed. If pupils do not have sufficient fluency, they will have to concentrate on monitoring their handwriting and spelling and will be less able to think about the content of their writing.²³

There is no quick way to develop these essential skills other than through regular and substantial practice.

EVIDENCE SUMMARY

The evidence regarding physical writing skills is limited, and based on reviews and single studies. Fewer studies have been conducted regarding teaching transcription skills than other aspects of literacy.

Practice should be:

- **Extensive**—a large amount of regular practice is required for pupils to achieve fluency in these skills. Achieving the necessary quantity of practice requires pupils to be motivated and fully engaged in improving their writing.²⁴
- **Supported by effective feedback**—teachers can support children to practise effectively by providing opportunities for effective feedback.²⁵ Feedback should:
 - be specific, accurate, and clear (for example: ‘It was good because you joined up your letters correctly’ rather than ‘Your handwriting is getting neater’);
 - compare what a pupil is doing right now with what they have done wrong before (for example: ‘I can see you focused on making sure you crossed your “t”s, as you remembered more often than last time’);
 - encourage and support further effort;
 - be given sparingly so that it is meaningful; and
 - provide specific guidance on how to improve rather than just telling pupils when they are incorrect (for example: ‘Next time, you should make sure that all of your “t”s are crossed. This is where you put the cross’).

Accurate spelling is a key component of writing fluency and should be explicitly taught rather than simply tested.²⁶ However, there is relatively little robust evidence about what constitutes effective approaches to teaching spelling. Some approaches do have some evidence to support them, especially when evaluated on the basis of improvements to the spelling of individual words. It is less clear which approaches lead to better spelling in the context of pupils’ composition of full texts.²⁷ The teaching of spelling is likely to work best when the spellings are related to the current content being studied in school and when teachers encourage active use of any new spellings in pupils’ writing.

There is some evidence to suggest that teaching word patterns may help with spelling.²⁸ Teachers could talk about morphemes (prefixes and suffixes, and root words) and show how these recur in different words. It may be that by being able to, for example, understand that the ‘un-’ prefix in ‘unlike’ has the same spelling and meaning as in ‘unusual’, ‘unhappy’ and ‘unpleasant’, pupils can see that they can break words into smaller parts, many of which they already know from other words. It should be noted that an EEF-funded trial of a programme which taught pupils in Key Stage 1 about morphemes did not have an impact on their reading comprehension.²⁹ Other promising approaches include paired learning approaches and the use of techniques such as ‘look-say-cover-write-say-check’ (see box 2).³⁰

In the absence of better evidence regarding the teaching of spelling, teachers should be aware of the other strategies that good spellers appear to use, and consider teaching these strategies directly.³¹ These include:

- a phonic approach—sounding out the word, and spelling it the way it sounds;
- analogy—spelling it like other known words (for example ‘call’ and ‘fall’);
- the identification of the ‘tricky’ parts of words so that these can be learned (such as ‘separate’ and ‘miniature’)—many of the most common words in English are ‘tricky’ (now known as ‘common exception words’ in the National Curriculum); and
- a visual approach—writing the word in two or three different ways and deciding which looks right.

BOX 2: LOOK-SAY-COVER-WRITE-SAY-CHECK

Ask the children to:

1. Look carefully at the word structure, shape, and form (or the salient orthographic, morphological, and structural features).
2. Say the word out loud. Focus on grapheme-phoneme relationships within the word. Exaggerate the pronunciation of the word to highlight correct spelling (for example, ‘choc-O-late’ or ‘sep-AR-ate’).
3. Cover the word.
4. Try to remember or picture the spelling, and write the word.
5. Say the written word out loud to check that it matches the sound and recall the structure, shape and form.
6. Uncover the word and check that the spelling is correct.





USE HIGH-QUALITY INFORMATION ABOUT PUPILS' CURRENT CAPABILITIES TO SELECT THE BEST NEXT STEPS FOR TEACHING

As pupils develop their literacy skills, teaching should respond to their changing needs. This requires teachers to collect accurate and up-to-date information (see Box 3) about pupil's current capabilities, so that they can adapt their teaching accordingly to focus on exactly what the pupil needs to progress. Teaching that adapts to pupils' needs is more efficient, because effort is spent on the best next step, and is not wasted by rehearsing skills or content that a child already knows well. This approach can be used to identify appropriate catch up support for struggling pupils, but can also be used to ensure that high attaining pupils continue to make good progress.

Once a teacher has identified a pupil's needs, teaching can be adapted by:

1. **changing the focus**—targeting an aspect of literacy where a pupil needs more support; or
2. **changing the approach**—adopting a different approach to teaching the same aspect of literacy.

BOX 3: COLLECTING HIGH QUALITY INFORMATION

A range of diagnostic tests and assessments for reading and writing is available and staff should be trained to use and interpret these effectively.³² The results should be used to supplement, not replace, professional judgement about a child's current capabilities.

A helpful distinction can be made between using assessment to monitor a pupil's progress, and using it to diagnose a pupil's specific capabilities and difficulties. Both are important. Monitoring can be used to identify pupils who are struggling, or whose progress can be accelerated, and diagnostic assessments can suggest the type of support they need from the teacher to continue to progress. When an assessment suggests that a child is struggling, effective diagnosis of the exact nature of their difficulty should be the first step, and should inform early and targeted intervention (see Recommendation 8).³³

Every assessment involves trade-offs, such as between the time taken to complete an assessment and its validity and reliability. Consequently, it is crucial to consider what data you hope to collect before selecting an appropriate assessment. For example, scores out of ten on a weekly spelling test may be valid for the purpose of identifying pupils most in need of extra spelling support (monitoring), but the scores alone would not be valid for the purpose of informing future teaching (diagnosis) where an analysis of the kinds of mistakes a child makes in spelling should inform specific teaching strategies.

More guidance regarding effective assessment is available in the EEF's online guide to Assessment and Monitoring Pupil Progress.³⁴

EVIDENCE SUMMARY

This recommendation is supported by moderate evidence from several reviews and intervention studies where an accurate baseline test is given to ensure the intervention is appropriate.

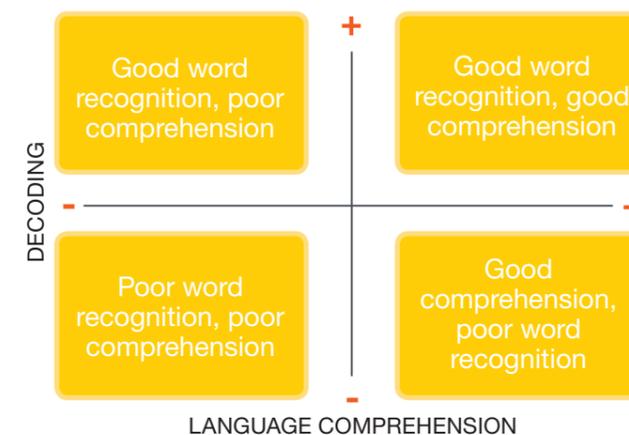
CHANGING THE FOCUS OF TEACHING

Models of typical literacy development can provide useful tools to support teachers in selecting a particular aspect of literacy to focus on. For example, the Simple View of Reading (SVR) can be used as a framework for diagnosing pupils' weaknesses in reading, and suggest an appropriate next step for teaching.³⁵ According to the SVR, reading consists of two interacting dimensions: decoding (the ability to recognise, understand and pronounce individual words) and comprehension (the ability to understand the form and meaning of language). Proficient readers are skilled in both of these dimensions, while weaker readers may struggle with one or both of them. The four possible reading profiles are summarised in figure 2.*

The principle of using such a model to identify a pupil's relative strengths and weaknesses can be applied more broadly. A similar model of writing development distinguishes between transcription (handwriting, spelling and keyboard) skills and composition skills (composing a text that effectively suits its purpose and conveys meaning).³⁶

Ultimately, the goal is fluency in these skills and integration of all dimensions of reading and writing, but in the short term it is critical to identify need and teach accordingly.

FIGURE 2: THE SIMPLE VIEW OF READING



CHANGING THE TEACHING APPROACH

It may be that a pupil does not need more instruction on a particular aspect of their literacy, but instead they require a different approach. In this case the pupil may have become disengaged, or may be finding activities too hard or too easy. Re-engaging a pupil in their learning could require using an approach that is better suited to the pupil's interests.

Where activities are found to be too challenging then scaffolding provides a useful analogy. In construction, scaffolding provides temporary, adjustable support enabling tasks that would not otherwise be possible. In education, scaffolding is a term that is used regularly, but its meaning is often conflated with 'differentiation', 'help' and 'support'.³⁷ Scaffolding has a precise meaning: it describes how someone who is more expert (an adult or peer) can provide *structured help* when a pupil is learning a new skill. There are many different frameworks for scaffolding, but they typically share three characteristics:³⁸

- **responsiveness to need**—scaffolding requires high quality information about students' current capabilities so that support can be appropriately tailored;
- **fading of support as pupils' capabilities develop**—the rate of fading depends on the needs of the individual student and it can be done by reducing the amount and/or level of support; and
- **transfer of responsibility**—as support fades the responsibility for the skill should increasingly transfer from the teacher to the student.

A key principle of scaffolding is that one should aim to provide the minimum level of support that is needed. The level of support should gradually decrease in response to pupils becoming increasingly independent to avoid pupils failing to manage their own learning and becoming over-dependent.

*It is important to remember that the SVR is a simplified and incomplete model that does not completely describe the complex process of reading development. However, it provides a useful starting point when considering how to support pupils to improve.



USE HIGH-QUALITY STRUCTURED INTERVENTIONS TO HELP PUPILS WHO ARE STRUGGLING WITH THEIR LITERACY

Schools should focus first on developing core classroom teaching strategies which improve the literacy capabilities of the whole class. With this in place, the need for additional support should decrease. Nevertheless, it is likely that a small number of pupils will require additional support—in the form of high-quality, structured, targeted interventions—to make progress.³⁹

Identifying pupils who are struggling with their literacy is the first step (see recommendation 7). Diagnostic assessments should then be used to understand the nature of the pupil's difficulty, and match them to an appropriate intervention.

Targeted interventions involve a teacher, teaching assistant or other adult providing intensive individual or small-group support. This may take place outside of normal lessons as additional teaching, or as a replacement for other lessons. If pupils are withdrawn from normal classroom activity it is important that the alternative support is more effective than the teaching they would normally receive. If the alternative support is not more effective then it is possible for pupils to fall even further behind as children left in their class will continue to make progress. It is also important that pupils do not miss activities that they enjoy, and that a plan is in place to ensure the pupil can make links between their learning in intervention sessions and their work back in the classroom.

EVIDENCE SUMMARY

There is extensive and consistent evidence from at least 6 meta-analyses and reviews, including studies involving pupils aged 5-7 of the impact of structured interventions and intensive one-to-one support.

BOX 4: ONE-TO-ONE OR SMALL GROUP?⁴⁰

On average, it is a case of the smaller the group, the greater the impact: groups of two have slightly higher impact than groups of three, but slightly lower impact compared to one-to-one tuition. Some studies suggest that greater feedback from the teacher, more sustained engagement in smaller groups, or work which is more closely matched to pupils' needs explains this impact. Once group size increases above six or seven there is a noticeable reduction in effectiveness.

However, although this generally holds there is evidence that it is not always the case. For example, in reading, small-group teaching can sometimes be more effective than either one-to-one or paired tuition. It may be that in these cases reading practice has been efficiently organised so that all the group stay fully engaged as each take their turn, such as in Guided Reading. This variability in findings suggests that the quality of the teaching in small groups may be as or more important than group size.

At present there are only a handful of catch-up programmes in the UK for which there is good evidence of effectiveness.⁴¹ The following common elements are features of effective targeted interventions. If your school is using or considering programmes that have not been rigorously evaluated, you should ensure that they include these features:⁴²

- brief (about 30 minutes) and regular (3–5 times per week) sessions that are maintained over a sustained period (6–12 weeks) and carefully timetabled to enable consistent delivery;
- extensive training (5–30 hours) from experienced trainers and/or teachers;
- structured supporting resources and/or lesson plans with clear objectives;
- assessments to identify appropriate pupils, guide areas for focus, and track pupil progress—effective interventions ensure the right support is being provided to the right child;
- tuition that is additional to, and explicitly linked with, normal lessons;
- connections are made between the out-of-class (intervention) learning and classroom teaching.

BOX 5: WHO SHOULD DELIVER CATCH-UP INTERVENTIONS?

The evidence suggests that interventions delivered by Teaching Assistants (TAs) can have a positive impact on attainment, but on average this impact is lower than when delivered by a teacher.⁴³ Crucially, these positive effects only occur when TAs work in structured settings with high-quality support and training. When TAs are deployed in more informal, unsupported instructional roles, they can impact negatively on pupils' learning outcomes. In other words, what matters most is not whether TAs are delivering interventions, but how they are doing so. In this context, structured evidence-based programmes provide an excellent means of aiding high-quality delivery.

The EEF's Making Best Use of Teaching Assistants guidance report provides more guidance regarding the deployment of TAs.⁴⁴

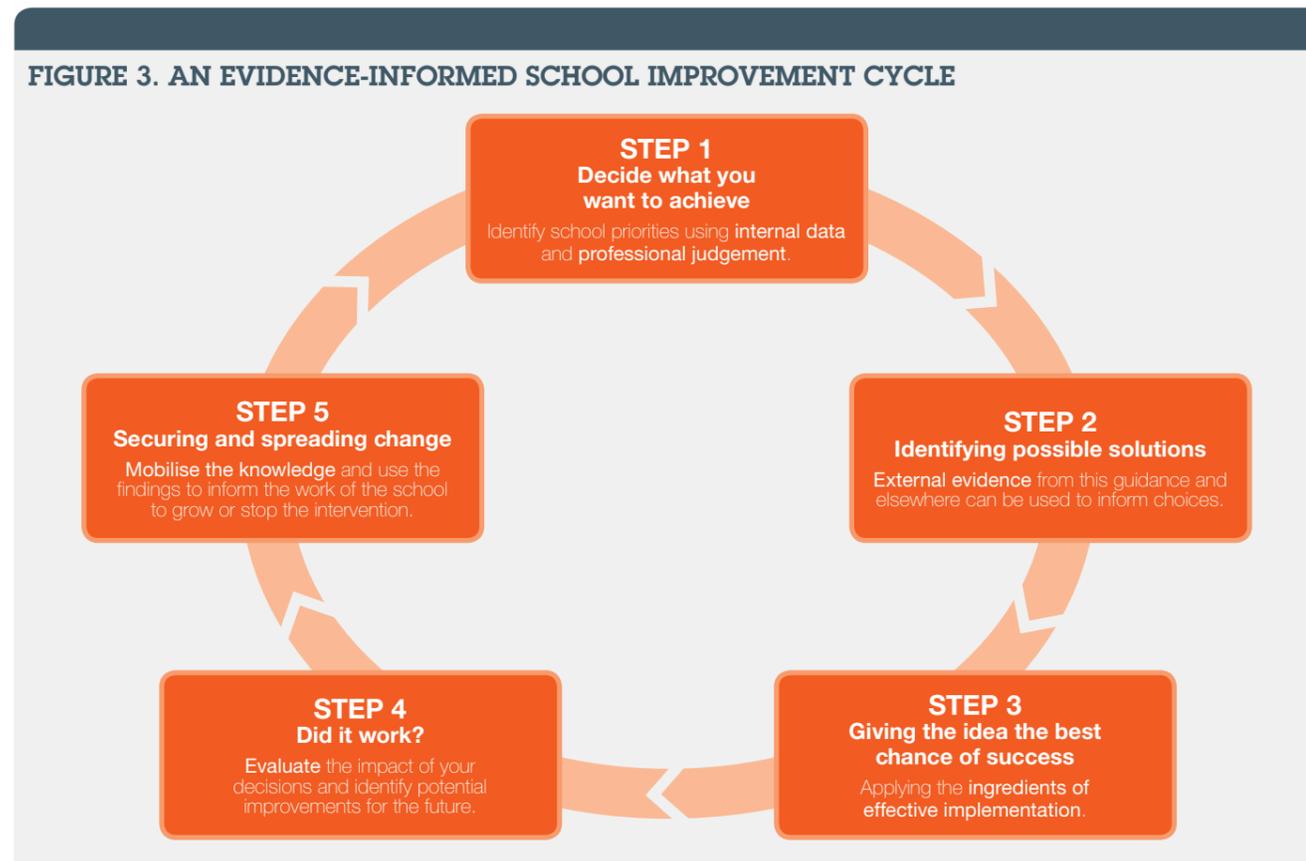
ACTING ON THE EVIDENCE

There are several key principles to consider when acting on this guidance.

1. These recommendations do not provide “one size fits all” solutions. It is important to consider the delicate balance between implementing the recommendations faithfully and applying them appropriately to your school’s particular context. Implementing the recommendations effectively will require careful consideration of how they fit your school’s context and the application of sound professional judgement.
2. The recommendations should be considered together, as a group, and should not be implemented selectively. For example, although a structured phonics programme is an integral part of strong early literacy teaching, it should be combined with the other important aspects of a broad and balanced approach to teaching reading.
3. It is important to consider the precise detail provided beneath the headline recommendations. For example, schools should not use Recommendation 8 to justify the purchase of lots of interventions. Rather, it should provoke thought about the most appropriate interventions to buy.

Inevitably, change takes time, and we recommend taking at least two terms to plan, develop, and pilot strategies on a small scale at first before rolling out new practices across the school. Gather support for change across the school and set aside regular time throughout the year to focus on this project and review progress.

Figure 3 suggests a school improvement model which could be used as a guide as you make changes.



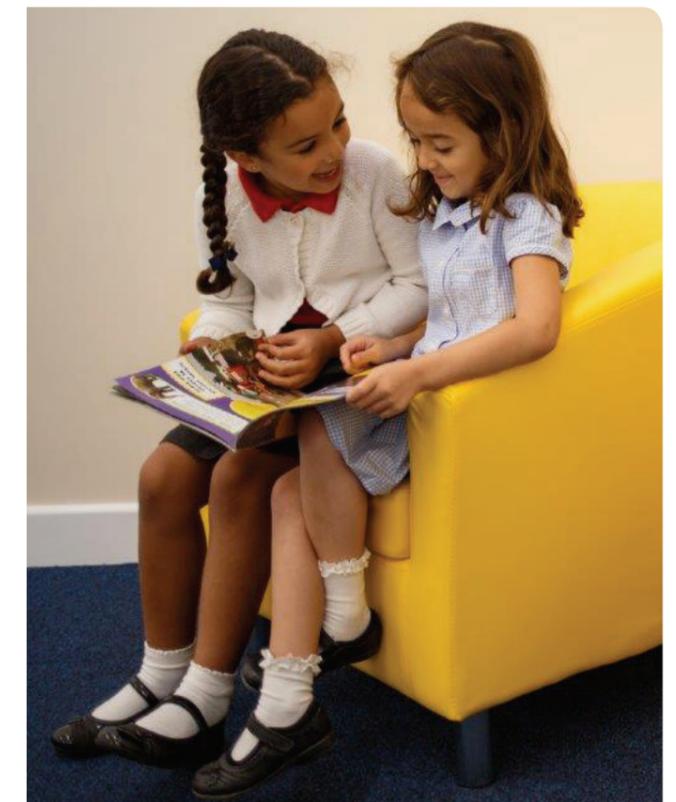
HOW WAS THIS GUIDANCE COMPILED?

This guidance report draws on the best available evidence regarding the teaching of literacy to primary-aged children. The primary source of evidence for the recommendations is the Teaching and Learning Toolkit which is a synthesis of international research evidence developed by Professor Steve Higgins and colleagues at the University of Durham, with the support of the Sutton Trust and the EEF. However, the report also draws on a wide range of evidence from other studies and reviews regarding literacy development and teaching. The emphasis is on rigorous evaluations that provide reliable evidence of an impact on pupil learning outcomes. The intention is to provide a reliable foundation of what is effective, based on robust evidence.

The report was developed over several stages. The initial stage produced a scoping document that set out the headline recommendations and supporting evidence. This was subjected to an academic peer review. The feedback from this review informed the writing of a final draft of the report which was then subjected to a second external review by a group of academics, practitioners, and other stakeholders.

An evidence rating which represents the authors’ judgement regarding the strength of the evidence base is provided for each recommendation. The authors considered three features of the evidence when creating the ratings:

1. **quality and quantity**—recommendations that were based on a large number of high quality studies such as meta-analyses or randomised controlled trials received higher ratings;
2. **consistency**—recommendations that were based on relatively consistent evidence received higher ratings; and
3. **directness**—recommendations based on evidence that directly related to 5-7 year olds received stronger ratings (in some cases recommendations received weaker ratings because it was necessary to extrapolate from research on slightly older children).



GLOSSARY

Analytic phonics	Analytic phonics involves the analysis of whole words to detect sound or spelling patterns, then splitting them into smaller parts and sounding these out to help with the decoding process. For a word like 'thrill', in analytic phonics one would encourage the break as onset and rime 'thr – ill' and get the child to sound this out (thruh – ill). One might also encourage a pupil to identify other words they know which start with this sound such as 'three, throw, threw.'
Diagnostic assessment	An assessment that aims to identify a pupil's current strengths and weaknesses so as to determine the most helpful teaching strategies and content to move the pupil forwards. It can be distinguished from tracking or monitoring where the aim is just to check progress. Diagnostic assessment aims to make teaching more efficient.
Decoding skills	The ability to translate written words into the sounds of spoken language
Etymology	The study of the origins and history of words and the way in which their meanings have changed. The etymology of 'phonics', for example, is from the Greek phone meaning voice. It was originally used in the 17th Century to mean the science of sound, but has now come to mean an approach to teaching reading.
Expository text	A non-fiction text that aims to inform a reader about a specific topic.
Expressive vocabulary	The words that a pupil can express through speaking or writing.
Grapheme	A letter or combination of letters used to represent a phoneme, for example, in the word 'push', the graphemes <p>, <u>, <sh> represent the phonemes /p/ u/ /ʃ/ to make the word 'push' and phonetically /pʊʃ/.
Inference	Using information from a text in order to arrive at another piece of information that is implicit.
Meta-analysis	A particular type of systematic research review which focuses on the quantitative evidence from different studies and combines these statistically to seek a more reliable or more robust conclusion than can be drawn from separate studies.
Morphemes	The smallest units of words that contain meaning, such as the 'root' word 'child' and the affix '-ish', which in combination make a new word 'childish'.
Morphology	The form and meaning of a language; the study of the smallest units of words that contain meaning.
Onset-rime	The onset of a word is the part of a syllable that precedes the vowel of the syllable. The rime is the final part of a word, including the vowel and the other phonemes that follow it.
Orthography	The rules for writing a language, including spelling, punctuation and capitalisation.

Phoneme	A phoneme is a speech sound. It is the smallest unit of spoken language that distinguishes one word (or word part) from another. For example, 't' and 'p' in tip and dip. Phonemes are represented with a range of symbols as most letters can be pronounced in different ways.
Phonemic awareness	The ability to hear and manipulate the sounds in spoken words, and the understanding that spoken words and syllables are made up of sequences of speech sounds. Phonemic awareness involves hearing language at the phoneme level.
Phonics	An approach to teaching reading that focuses on the sounds represented by letters in words (see also 'analytic' and 'synthetic' phonics).
Reading comprehension	The ability to understand the meaning of a text.
Receptive vocabulary	The words that can be understood by a person when they are reading or listening.
Reliable assessments	Assessments which are consistent and would produce the same results when repeated. If two teachers give different marks for a piece of writing, then their assessment is not reliable.
Segmentation	The separation of words into parts, usually into phonemes or morphemes.
Semantics	The part of language (or linguistics) and logic concerned with meaning.
Syntax	The rules and principles for how words are combined and organised into phrases and sentences.
Synthetic phonics	A form of phonics teaching in which sounding-out is used. It teaches children to recognise phonemes discretely and match them to their graphemes, and then the skill of blending the phonemes together into words. The classic example is 'kuh – a – tuh' – 'cat'.
Systematic phonics	The teaching of letter-sound relationships in an explicit, organised and sequenced fashion, as opposed to incidentally or on a 'when-needed' basis. May refer to systematic synthetic or systematic analytic phonics.
Valid assessments	Valid assessments measure what the assessment is supposed to measure.

REFERENCES

- Higgins, S., Katsipatakis, M., Kokotsaki, D., Coleman, R., Major, L.E. and Coe, R. (2013) The Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit. London: Education Endowment Foundation. Available at http://educationendowmentfoundation.org.uk/uploads/pdf/Teaching_Assistants_Toolkit_References.pdf
- Clarke, P. J., Snowling, M. J., Truelove, E., & Hulme, C. (2010). Ameliorating children's reading-comprehension difficulties a randomized controlled trial. *Psychological Science*, 21(8), 1106-1116.
- Teaching and Learning Toolkit (2016): Oral language interventions <https://educationendowmentfoundation.org.uk/toolkit/toolkit-a-z/oral-language-interventions/>; Graham, S., Bollinger, A., Booth Olson, C., D'Acoust, C., MacArthur, C., McCutchen, D. and Olinghouse, N. (2012) 'Teaching elementary school students to be effective writers: A practice guide' (NCEE 2012-4058), Washington DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education, http://ies.ed.gov/ncee/wwc/publications_reviews.aspx#pubsearch; National Reading Panel (2000) 'Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups', Washington, DC: National Institute of Child Health and Human Development., 4-4.
- Graham, S. et al (2012); Sandler, B., & Graham, S. (2005). 'The effects of peer-assisted sentence-combining instruction on the writing performance of more and less skilled young writers.' *Journal of Educational Psychology*, 97(1), 43-54.
- Savage, R., Burgos, G., Wood, E., & Piquette, N. (2015). 'The Simple View of Reading as a framework for national literacy initiatives: a hierarchical model of pupil level and classroom level factors.' *British Educational Research Journal*, 41(5), 820-844. <http://dx.doi.org/10.1002/berj.3177>; Wyse, D., & Styles, M. (2007). 'Synthetic phonics and the teaching of reading: the debate surrounding England's 'Rose Report'.' *Literacy*, 41(1), 35-42. <http://dx.doi.org/10.1111/j.1467-9345.2007.00455.x>; Torgerson et al (2006), A Systematic Review of the Research Literature on the Use of Phonics in the Teaching of Reading and Spelling. <https://czone.eastsussex.gov.uk/sites/gtp/library/core/english/Documents/phonics/A%20Systematic%20Review%20of%20the%20Research%20Literature%20on%20the%20Use%20of%20Phonics%20in%20the%20Teaching%20of%20Reading%20and%20Spelling.pdf>; Price-Mohr, R., Price, C. (2016). 'Gender Differences in Early Reading Strategies: A Comparison of Synthetic Phonics Only with a Mixed Approach to Teaching Reading to 4-5 Year-Old Children.' *Early Childhood Education Journal*. 1-8. <http://dx.doi.org/10.1007/s10643-016-0813-y>.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Improving reading comprehension in kindergarten through 3rd grade: A practice guide (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from whatworks.ed.gov/publications/practiceguides.
- Teaching and Learning Toolkit (2016): Phonics <https://educationendowmentfoundation.org.uk/index.php?/evidence/teaching-learning-toolkit/phonics/>.
- National Reading Panel (2000), 2-96.
- National Reading Panel (2000), 2-99.
- The Evidence4Impact database is a useful repository of information regarding evaluations of available programmes: <http://www.evidence4impact.org.uk/index.php>.
- Slavin, B. et al. (2010). Effective Reading Programs for the Elementary Grades: A Best-Evidence Synthesis. http://www.bestevidence.org/word/elem_read_Jan_22_2010.pdf.

REFERENCES CONTINUED

- National Reading Panel (2000), 2-97.
- National Reading Panel (2000), 2-96.
- Torgerson, C., Brooks, G. and Hall, J. (2006) A systematic review of the research literature on the use of phonics in the teaching of reading and spelling, Nottingham: DfES Publications. <https://core.ac.uk/download/files/161/5911476.pdf>
- National Reading Panel (2000), 4-39.
- National Reading Panel (2000), 4-39 – 4-40.
- Teaching and Learning Toolkit (2016): Meta-cognition and Self-regulation <https://educationendowmentfoundation.org.uk/toolkit/toolkit-a-z/meta-cognitive-and-self-regulation-strategies/>
- National Reading Panel (2000), 4-46.
- Graham, S. et al (2012) 'A Meta-Analysis of Writing Instruction for Students in the Elementary Grades', *Journal of Educational Psychology*, Vol. 104, No. 4, 879-896
- Harris, K. R., Graham, S. and Mason, L. H. (2006) 'Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support', *American Educational Research Journal*, 43(2), 295-340.
- Williams, J. P., Hall, K. M., & Lauer, K. D. (2004). 'Teaching expository text structure to young at-risk learners: Building the basics of comprehension instruction.' *Exceptionality*, 12(3), 129-144. http://dx.doi.org/10.1207/s15327035ex1203_2
- Sandler, B., & Graham, S. (2005). 'The effects of peer-assisted sentence-combining instruction on the writing performance of more and less skilled young writers.' *Journal of Educational Psychology*, 97(1), 43.
- McCutchen, D. (2000). 'Knowledge, processing, and working memory: Implications for a theory of writing.' *Educational Psychologist*, 35, 13-23.
- McGraham, S. and Harris, K. R. (2005) 'Improving the writing performance of young struggling writers theoretical and programmatic research from the center on accelerating student learning', *The Journal of Special Education*, 39(1), 19-33.
- Teaching and Learning Toolkit (2016): feedback. <https://educationendowmentfoundation.org.uk/evidence/teaching-learning-toolkit/feedback/>
- Beminger, V. W., Vaughan, K., Abbott, R. D., Begay, K., Coleman, K. B., Curtin, G. & Graham, S. (2002). 'Teaching spelling and composition alone and together: Implications for the simple view of writing.' *Journal of Educational Psychology*, 94(2), 291-304.
- Department for Education (2012). What is the research evidence on writing? Research report DFE-RR238. London: Department for Education. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/DFE-RR238.pdf; Beminger, V. W. et al. (2002), 291.
- Goodwin, A. P., & Ahn, S. (2010). 'A meta-analysis of morphological interventions: Effects on literacy achievement of children with literacy difficulties.' *Annals of Dyslexia*, 60(2), 183-208. <http://dx.doi.org/10.1080/10888438.2012.689791>; Nunes, T. and Bryant, P. (2006) *Improving Literacy through Teaching Morphemes*. London: Routledge.
- Worth, J. Sismur, J., Ager, R., and Styles, B. (2015). 'Improving Numeracy and Literacy', London: Education Endowment Foundation.
- Teaching and Learning Toolkit (2016): Collaborative Learning <https://educationendowmentfoundation.org.uk/toolkit/toolkit-a-z/collaborative-learning/>; Fisher, B., Cozens, M. E., & Greive, C. (2007). 'Look-Say-Cover-Write-Say-Check and Old Way/New Way-Mediation Learning: A comparison of the effectiveness of two tutoring programs for children with persistent spelling difficulties.' *Education Papers and Journal Articles*. Paper 31. http://research.avondale.edu.au/edu_papers/31

REFERENCES CONTINUED

31. Waugh, D., Warner, C., & Waugh, R. (2016). *Teaching Grammar, Punctuation and Spelling in Primary Schools* (2nd edition). London: Sage.
32. McKenna, M. C., & Stahl, K. A. D. (2015). *Assessment for Reading Instruction*. (3rd Edition) New York: Guilford Publications.
33. van Geel, M., Keuning, T., Visscher, A. J., & Fox, J. P. (2016). 'Assessing the Effects of a School-Wide Data-Based Decision-Making Intervention on Student Achievement Growth in Primary Schools.' *American Educational Research Journal*, 53(2) 360-394. <http://dx.doi.org/10.3102/0002831216637346>.
34. <https://educationendowmentfoundation.org.uk/evaluation/assessing-and-monitoring-pupil-progress>
35. Gough, P. B. & Tunmer, W. E. (1986). 'Decoding, reading, and reading disability.' *Remedial and Special Education*, 7, 6-10.
36. Berninger, V. W. et al (2002).
37. Pea, R. D. (2004). The social and technological dimensions of scaffolding and related theoretical concepts for learning, education, and human activity. *Journal of the Learning Sciences*, 13, 423–451.; Puntambekar, S. & Hubscher, R. (2005) Tools for scaffolding students in a complex learning environment: what have we gained and what have we missed? *Educational Psychologist*, 40, 1-12
38. Van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher–student interaction: A decade of research. *Educational Psychology Review*, 22(3), 271-296.
39. Slavin, R. E., Lake, C., Davis, S. and Madden, N. A. (2011) 'Effective programs for struggling readers: A best-evidence synthesis', *Educational Research Review*, 6(1), 1–26. <http://dx.doi.org/10.1016/j.edurev.2010.07.002>
40. Teaching and Learning Toolkit (2016): One to one tuition <https://educationendowmentfoundation.org.uk/evidence/teaching-learning-toolkit/one-to-one-tuition/>; Teaching and Learning Toolkit (2016): Small group tuition <https://educationendowmentfoundation.org.uk/evidence/teaching-learning-toolkit/small-group-tuition/>
41. The Evidence4Impact database is a useful repository of information regarding evaluations of available programmes: <http://www.evidence4impact.org.uk/index.php>.
42. Teaching and Learning Toolkit (2016): One to one tuition; Slavin, R. E. et al (2011); Sharples, J., Webster, R. and Blatchford, P. (2015) 'Making Best Use of Teaching Assistants, Guidance Report', London: EEF. https://educationendowmentfoundation.org.uk/uploads/pdf/TA_Guidance_Report_Interactive.pdf
43. Sharples, J. et al (2015).
44. Sharples, J. et al (2015).

Designed and produced by Handstand Creative
www.handstandcreative.com



The Education Endowment Foundation
9th Floor, Millbank Tower
21–24 Millbank
London
SW1P 4QP
www.educationendowmentfoundation.org.uk
 @EducEndowFoundn