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Fast Phonics White Paper

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Fast Phonics is an online systematic, synthetic phonics program designed for emergent and early readers, as well as older students with gaps in their core reading knowledge. The Fast Phonics program teaches core phonics skills, including letter-sound correspondence, segmenting and blending, syllable manipulation and spelling skills. Based on best practice reading instruction, it fully aligns with key curriculum initiatives to boost reading success. The many rewarding elements of the program keep children motivated to learn, laugh and see what's next.



The 26 graphemes in the English alphabet make 44 phonemes, with many ways to spell these sounds.

Phonics: The Essential Element for Reading Success

Decades of psychological science research and comprehensive government reviews in the United Kingdom, United States and Australia have revealed a strong consensus around the importance of systematic phonics instruction during the initial stages of learning to read (Castles, Rastle and Nation, 2018; National Reading Panel, 2000; Rowe, 2005; Rose, 2006).

The complex orthography of the English language makes understanding the connection between sounds and written letters (the alphabetic principle) particularly difficult. Phonics is the process of learning to connect phonemes with their written graphemes. A systematic phonics program provides planned learning experiences that give learners the tools to decode words.

Children aged 5 years old, and in some cases even younger, can benefit from systematic phonics (Rose, 2006). Moreover, brain imaging studies suggest children continue to refine their phonics skills into adolescence (Froyen et al., 2008).

There are two main phonics teaching methods: analytic and synthetic phonics. Analytic phonics focuses on whole words first and introduces blending and sounds later in the sequence. Synthetic phonics involves identifying sets of letters and sounds; blending the sounds all the way though the word; and then segmenting sounds to spell each word.

Synthetic phonics as best practice

Academic research and government policy agree about the effectiveness of synthetic phonics instruction (Hempenstall, 2016). Synthetic phonics teaches letter-sound relationships in an *explicit and systematic* sequence. This 'first and fast' approach to reading instruction introduces children to individual phonemes and letter sounds, so that they can rapidly decode words and read independently.

Synthetic phonics instruction is grounded in research. Most notably, a longitudinal research project in Clackmannanshire, Scotland, linked synthetic phonics instruction to remarkable gains in students' reading abilities. The Clackmannanshire studies were seminal to establishing the preeminence of synthetic phonics instruction for emergent and early readers (see **Appendix A** for details).

Following the Clackmannanshire studies, the UK Government tasked Sir Jim Rose, then Her Majesty's Chief Inspector of Primary Education, with conducting the *Independent review of the teaching of early reading*. The review examined the most effective method of systematic phonics instruction. The resultant 'Rose Report' concluded that 'the case for systematic phonic work is overwhelming and much strengthened by a synthetic approach' (Rose, 2006:20).

In Australia, the National Inquiry into Teaching Literacy in Australia recommended teachers provide systematic, direct and explicit phonics



instruction to ensure that children master the essential alphabetic codebreaking skills required for foundational reading proficiency (Rowe, 2005). Research also found that systematic synthetic phonics had substantial advantages over analytic phonics for the reading and spelling skills of students in their second year of school (Christensen and Bowey, 2005). Research on high performing primary schools in Western Australia found that all of the schools used synthetic phonics programs in the early years (Louden, 2015; See **Appendix B** for details about the use of synthetic phonics in Australia).

In the United States, the National Reading Panel found that systematic phonics programs produce greater growth in reading than other reading programs, and that synthetic phonics instruction is especially effective for younger, at-risk readers (National Reading Panel, 2000). In addition, a largescale study conducted by Barbara Foorman at the University of Houston found that systematic synthetic phonics was by far the most effective reading instruction method (Hempenstall, 2016 quoting Foorman et al., 1997).

Key curriculum initiatives and outcomes

Large numbers of children in Australia are not meeting the expected learning outcomes and standards in literacy (Expert Advisory Panel, 2017). Effective reading instruction, specifically synthetic phonics instruction, in the early years of schooling is critical to improving students' literacy.

Phonics instruction is included in the *Phonics and Word Knowledge* substrand of the Australian Curriculum F-10 English curriculum (ACARA). State education departments, including New South Wales, South Australia and Western Australia, are increasingly encouraging the use of synthetic phonics in the classroom. Indeed, the NSW Centre for Education Statistics and Evaluation advised that synthetic phonics programs are 'the most effective method of teaching phonics' (NSW Centre for Education Statistics and Evaluation, 2017:8).

There have also been calls to adopt a nationwide phonics check for Year 1 students (Expert Advisory Panel, 2017; Snow, Castles, Wheldall and Coltheart, 2016). In 2019, the Australian Government announced that it will introduce a free, voluntary phonics check for Year 1 students (Media release: 'Bringing phonics into Australian schools', Minister for Education, 2019). Certain states have already acted; following a trial of a phonics check in 2017, South Australia introduced a mandatory phonics check for all Year 1 students in public schools in 2018. New South Wales is trialling a similar check in 2020.

The Australian Government has also committed funds to the Australian Institute for Teaching and School Leadership to provide expert advice on incorporating phonics into the national accreditation standards for initial teacher education (Media release: 'Bringing phonics into Australian schools', Minister for Education, 2019).





Fast Phonics: The Essential Synthetic Phonics Program

Fast Phonics uses the power of synthetic phonics to boost reading skills. The program is a phonics 'first and fast' approach that uses high-quality systematic, synthetic phonics instruction as the principle approach to decoding print. The program is designed for emergent and early readers (Foundation-Year 2), as well as older students with gaps in their core reading knowledge.

Fast Phonics is closely aligned to the United Kingdom's *Letters and Sounds* program. It includes 20 'peaks' that cover a set of letters and sounds. The program ensures that children progress from simple to more complex phonics knowledge and skills and that they cover the major grapheme/ phoneme correspondences. *Fast Phonics* has been specifically designed to be used in discrete, daily classroom practice. It recognises that children learn in different ways and uses a multisensory approach to engage students with visual, auditory and kinaesthetic activities.

With a range of videos, interactives, activities and decodable books, *Fast Phonics* **explicitly and systematically** teaches, supports, reinforces and assesses the core phonics skills, namely:

- letter-sound correspondence
- blending
- segmenting and spelling
- syllable manipulation.

Fast Phonics also covers pseudo-words. Pseudo-words are strings of letters that resemble real words. These types of words are included in phonics checks.

It is well established that phonics is one of five essential elements that students must master to become fluent readers. The other elements are phonemic awareness, vocabulary, comprehension and fluency (National Reading Panel, 2000). This paper focuses on the systematic synthetic phonics instruction provided by the *Fast Phonics* program; for detail about how *Fast Phonics* builds learners' phonemic awareness, vocabulary, comprehension and fluency skills, see **Appendix C**.



Fast Phonics is a synthetic phonics program that explicitly and systematically boosts students' core phonics skills. Each of the 20 peaks in *Fast Phonics* includes up to 24 parts and focuses on a specific set of letter sounds.





Peak 1 introduces students to the letter /s/ and the sound /ssss/ in a fun mnemonic animation.



Successfully identifying letter-sound correspondence sees the cheeky Furballs go flying in *Flying Furballs*.



Four Square helps children identify letter-sound correspondence.



Students have fun identifying lettersound correspondence in *Snowballs*.



Mountain Climb helps children to identify the location of sounds in words.

Letter-sound correspondence

Letter-sound correspondence is the foundation of phonics instruction. Children's knowledge of letter names and sounds is the best predictor of future reading and spelling ability (Piasta and Wager, 2010 quoting Hammill, 2004; Scarborough, 1998; Schatschneider, et al., 2004).

Fast Phonics teaches children to identify letter-sound correspondence in short, snappy sessions. Each peak uses animations to explain either a reading strategy or introduce a letter, phoneme, digraph, trigraph or split digraph.

Next, students commence activities that reinforce their new knowledge. For example, in *Flying Furballs* children identify which of the three Furballs makes the phoneme that corresponds with the onscreen grapheme.

Four Square also explicitly teaches letter-sound correspondence. Students hear a phoneme at the beginning of the activity and must tap the square that includes the grapheme that the phoneme represents.

Similarly, in *Snowballs*, students match the marked snowball to the letter that appears at the top of the screen. Children tap on the letter to hear the sound that it makes.

Mountain Climb teaches students how to identify sounds at the beginning, middle and end of a word. Children help Yeti climb a mountain by identifying the missing sound in a word. For example, the word 'might' is pronounced and appears on screen with a missing sound, such as 'm____t'. The child is given four possible solutions for the missing sound, including /p/, /ee/, /k/ and /igh/. When a learner successfully identifies the missing sound, Yeti climbs to the next step, where a similar question will be posed.





Stretch It Out is one of many Fast Phonics activities that teaches blending skills. Students identify individual sounds and then learn how to blend through a word.



Fly the Flag is used in Peak 1 and Peak 3 to develop students' segmenting skills. The activity also features in Peaks 4, 8 and 9 with increasing difficulty.



Send a Message hones students' spelling skills.

Blending

Blending is a key synthetic phonics skill. Unlike other types of phonics instruction, synthetic phonics teaches beginning readers to blend or 'synthesise' phonemes right from the outset, in order to develop word reading skills (Johnston and Watson, 2007).

Fast Phonics teaches students to blend phonemes in order, from left to right, 'all through the word' for reading. In the program students are taught to identify and blend sounds to decode words with consonant–vowel–consonant patterns, before moving on to more difficult words. For example, the six animations and 13 activities in Peak 1 *quickly and explicitly* introduce the sounds /s/, /a/, /t/ and /p/. In Peak 1, *Stretch It Out* teaches students to identify individual phonemes and then to blend all the way through the word to decode *tap, sat, pat* and *sap*.

Segmenting and spelling

Synthetic phonics teaches children to simultaneously spell words by segmenting them into phonemes while teaching blending to decode. Moreover, they learn that segmenting is the reverse of blending (Glazzard, 2017).

Fast Phonics animations and activities teach students how to spell words by segmenting them into their constituent phonemes. For example, in *Fly the Flag* students assemble phoneme blocks to make the correct word and help Yeti catch the Furballs.

Students learn spelling skills in *Send a Message*. In this activity children type a dictated message to Yeti using recently learned words. For example, in Peak 6 students are asked to type the message 'Ten bad rats got the big sack'. When shown two images, children match the image to the message to demonstrate that they comprehend what they have written.

Full Circle teaches children to spell various words using letter tiles. For example, in Peak 2 students use /m/, /a/, /p/, /t/ and /s/ to spell map, mat, sat, sit, pip, sip and sap.



In Peak 2, students spell CVC words using letter tiles in *Full Circle*.















Silly Bulls teaches syllable manipulation and blending through the word.

Syllable manipulation

Research indicates that the more attuned a child is to the phonological structure of words, such as syllables and phonemes, the more successful a decoder and reader he or she will become (Ritter, Park, Saxon and Colson, 2013 quoting Lewis et al., 2006; Otaiba, Puranik, Ziolkowski and Montgomery, 2009). Consequently, it is important to teach learners how to identify and manipulate syllables.

Fast Phonics includes syllable manipulation animations and activities from Peak 4 onwards. The *Silly Bulls* activity begins by introducing a new word, such as 'rabbit'. As most syllables contain a vowel (particularly in short words), the activity initially helps students identify the vowels in a word. It then explains that words can be broken up into syllables. To demonstrate this visually, the animation splits the word. Children read the syllables individually and then blend them together. They are then shown two images and must match the image to the word to demonstrate that the word has been read correctly.

Pseudo-words

As discussed, the initial focus of synthetic phonics programs is to teach children to identify, blend and segment phonemes. Consequently, it is considered appropriate to practise these skills on pseudo-words. The ability to decode real and pseudo-words is the basis of the phonics screening check used in England.

Furball Fun asks whether a word that appears on screen is real, such as 'town', or not, like 'pas'. Once students make a selection, the individual sounds in the word are separately enunciated.



Furballs cheer on students who correctly identify words and pseudo-words in *Furball Fun*.





Fast Phonics includes a range of decodable books that reinforce students' knowledge. The end-of-book quizzes assess their knowledge and provide insightful data to inform your classroom practice.





The Placement Test ensures learners start the program at the most appropriate Peak.



Learners monitor their achievements in the *My Progress* area.



Decodable books

Synthetic phonics uses decodable books to 'cement' new knowledge (Konza, 2011). Each *Fast Phonics* peak includes up to four decodable books and an accompanying end-of-book quiz. Students enjoy using the books to practise their new decoding skills. Additionally, being able to read books gives learners confidence, which is critical in the earliest stages of learning to read. Feeling successful helps motivate learners to practise. These components work together to hone phonics skills, as research demonstrates these are key for literacy success. Furthermore, the endof-book quizzes are an opportunity to reinforce and assess students' decoding skills.

Assessment and reporting

Assessment and reporting are embedded in *Fast Phonics*. The program assesses letter-sound correspondence; letter recognition; the ability to sound out phonemes; the ability to hear and blend phonemes; the reading of phonically regular words; and the reading of some irregular words.

Fast Phonics commences with a placement test. This test personalises a student's program by identifying strengths and areas for improvement. It also ensures he or she begins on the most appropriate peak.

Each peak concludes with a narrated 10-question multiple choice quiz that reinforces and assesses phonics skills. Students immediately move to the next peak if they receive 80% or more on the quiz. Students who are unsuccessful can re-take the assessment.

Additionally, each decodable book includes an end-of book quiz that assesses students' comprehension. There are up to four decodable books in each peak.

Children can monitor their own progress in the *My Progress* area. For example, students can view their average score for end-of-peak quizzes, as well as the total number of sounds and words learnt, and books read.

Teachers can monitor students' progress via the Teacher Dashboard, where they can see what letters and sounds their students know and which decodable books they have read.



Yeti and the Furballs encourage students to progress through *Fast Phonics*.





Gems and Yeti Coins motivate students to complete *Fast Phonics* activities.



Fun upgrades encourage students to stay on task.

Motivation



Motivation is the key to learning any new skill, and reading is no exception. It is crucial for reading instruction to encourage students' reading motivation and engagement (Wigfield, Gladstone and Turci, 2016). In large part, this is because motivation is a predictor of reading comprehension growth (Guthrie et al., 2007; Taboada, Tonks, Wigfield and Guthrie, 2009). Reading motivation is multidimensional; self-efficacy and intrinsic (internal) and external motivation are the three most important factors.

Self-efficacy refers to a child's belief in their ability to complete a task. It is based on a child's previous experience and the encouragement and feedback they receive from others (Wigfield, Guthrie, Tonks and Perencevich, 2004). Successfully completing a task provides a child with the confidence to undertake a similar activity. For example, reading a decodable book provides a child with the confidence to attempt a second book. Confidence is vital to academic success. Indeed, believing in oneself is more closely linked to achievement than any other motivation throughout school (Guthrie, 2013).

Fast Phonics fosters self-efficacy in emergent and early readers. The program is specifically sequenced to build students' knowledge and confidence. Synthetic phonics instruction, such as that offered in *Fast Phonics*, quickly and deliberately teaches how to identify letter-sound correspondence and how to blend and segment sounds. The program maintains its fidelity to synthetic phonics instruction as children progress to high-frequency words that do not conform completely to letter-sound correspondence rules. This structure gives students the confidence to continue through the program.

Intrinsic motivation refers to a child's desire to complete a task for their own sake, such as reading out of curiosity or the desire to be challenged (Wigfield and Guthrie, 1997). External motivations are benefits that children receive for their efforts, such as rewards. While children respond positively to external rewards when learning to read, the key to ongoing reading success is intrinsic motivation (Cambria and Guthrie, 2010).

Fast Phonics understands this delicate balance and uses a range of external rewards to encourage students while simultaneously supporting the development of intrinsic motivations. For example, the playful characters, Yeti Coins, exciting upgrades and interactive rewards in *Fast Phonics* engage and motivate students to keep learning. At the same time, the program's planned sequence of activities quickly builds and consolidates reading skills and confidence to ensure children move from decoders to master readers.

Peaks include carefully sequenced animations and activities to quickly introduce the concept of letter-sound correspondence, blending and segmenting. Consequently, students can independently read decodable books by the end of Peak 1.



Information and communication technologies use can positively affect children's literacy.

Transforming learning through technology

Digital technology has transformed teaching and learning in classrooms across the globe. There are significant benefits to incorporating technology into reading instruction, including increasing student motivation and personalising programs to allow learners to learn at their own pace (Jamshidifarsani, Garbaya, Lim and Blazevic, 2019).

Experimental and quasi-experimental studies have shown that information and communication technologies use can positively affect children's literacy (Piquette, Savage and Abrami, 2014; Cheung and Slavin, 2012). For example, a study of kindergarten children in the United States (equivalent to kindergarten students in Australia) found that computerassisted instruction to teach phonics, in addition to regular in-class teaching, can enhance students' reading skills, particularly for at-risk children (Macaruso and Walker, 2008). Similarly, a quasi-experimental study in Australia found that using a computer-based phonics program improved students' phonological awareness compared to regular literacy instruction (Wolgemuth et al., 2011).

Blended learning — combining digital and pen-and-paper activities and using data to provide a personalised education plan — is beneficial to developing phonological awareness, word attack (letter-sound knowledge), word identification skills and reading fluency (Prescott, Bundschuh, Kazakoff and Macaruso, 2017). Research conducted in the United States demonstrated that elementary school students, including children from low-SES backgrounds and English Language Learners who use a blended learning program make 'great progress' in English Language Arts and demonstrate 'significant growth on a standardised reading test' (Prescott, Bundschuh, Kazakoff and Macaruso, 2017:505).

A useful schema for discussing the potential impacts of various reading technologies is the QAIT model of effective classroom practice (Slavin, 1994, 2009). This framework posits that effective teaching is a product of four factors:

- Quality of instruction the provision of clear, well-organised, interesting lessons
- Appropriate levels of instruction content is appropriate and accords with students' prior knowledge, skills and learning rates
- Incentive students are intrinsically and externally motivated to learn the material
- Time the program provides adequate instructional time (Cheung and Slavin, 2012).

Fast Phonics meets these criteria. The program has a clear, consistent lesson structure that is rigorously mapped to learning outcomes and uses best practice education research to teach, support, reinforce and assess student knowledge. The extensive rewards and other motivational tools,



such as upgrades and animations, encourage children to complete all activities and, ultimately, to complete the program as proficient readers. The careful sequence of *Fast Phonics* peaks builds students' confidence as readers, helping them move from basic letter–sound correspondence to more advanced reading skills, including automaticity, fluency and comprehension. As a synthetic phonics program, *Fast Phonics* deftly introduces concepts to students' existing decoding skills. Students' progress through the program at their own pace, and the interactive reading, spelling and comprehension activities are opportunities to practise and reinforce their skills.

Teacher quality is critical to ensuring that students use online reading programs successfully (Duncan-Owens, 2009). The *Fast Phonics Teaching Guide* provides clear and detailed information to help teachers use the program effectively. Teachers can also quickly and easily access students' end-of-peak assessment results in the Teacher Dashboard to monitor students' progress and inform classroom practice.

Conclusion

Research demonstrates that synthetic phonics instruction provides a strong foundation for reading skill and reading confidence in learners. Being able to efficiently decode new words gives learners the confidence to read more, setting them on a more successful school trajectory.

Fast Phonics is a rigorous synthetic phonics program built on best practice research. The sequential program of 20 peaks introduces letter-sound correspondence systematically. By explicitly teaching segmenting and blending sounds early, *Fast Phonics* enables learners to make connections between letters, sounds and pronunciation to develop a strong alphabetic principle.

Each peak thoroughly covers one set of letter-sound correspondence using highly motivating and engaging animations, activities, interactives, books and quizzes. The teaching animations and strategy animations teach and reinforce systematic synthetic phonics. The multisensory interactive activities allow children to practise key phonics skills, including letter-sound recognition, blending all through the word, segmenting and spelling, pseudo-words, syllables, reading captions and extended text. The decodable books and end-of-book quizzes allow children to use and reinforce their reading skills. The end-of-peak quizzes are an opportunity to assess students' abilities and monitor their progress. *Fast Phonics* also has a bank of printable resources, including a teaching guide and printable student worksheets to assist classroom practice.

Fast Phonics is rigorous but fun. This complete synthetic phonics program is a dynamic mix of maps, upgrades and exciting learning activities where children can learn, laugh and see what's next.



Fast Phonics the systematic, synthetic phonics program where children can learn, laugh and see what's next.





The Clackmannanshire studies demonstrated that synthetic phonics instruction has major and long-lasting effect on children's reading and spelling.

Appendix A Clackmannanshire studies

The Clackmannanshire studies, as they are widely known, were conducted by Joyce Watson and Rhona Johnston on students in Primary 1 (the equivalent of kindergarten in Australia). The studies demonstrated the pre-eminence of synthetic phonics instruction for emergent readers.

Study 1 investigated which aspects of phonics teaching most effectively produced independent readers. The study was undertaken as part of a doctorate research in 1992–93 (before Clackmannanshire was formed) (Ellis, 2007). It tracked the reading and spelling development of Primary 1 students in 12 schools and concluded that the most effective method of reading instruction was to teach students to identify initial letter–sound correspondence quickly and to use a sounding and blending strategy (Watson, 1998).

Study 2 considered 'whether synthetic phonics was more effective than analytic phonics merely because letter sounds were taught at an accelerated pace' (Johnston and Watson, 2004: 343). In this study, 92 Primary 1 students were split into three groups and given two additional 15-minute tutorials over 10 weeks using either: synthetic phonics, analytic phonics, or sight vocabulary training only (i.e. no additional phonics tuition beyond that included in the normal class program) (Ellis, 2007). Results demonstrated that synthetic phonics instruction, specifically the focus on teaching children to sound and blend letter sounds, led to better reading, spelling and phonemic awareness and was thus superior to analytic phonics (Johnston and Watson, 2004).

Study 3 involved approximately 300 students and was conducted from 1997–99. The study was conducted in two phases and considered which type of phonics instruction was most effective. **Phase 1** saw students in Primary 1 classes taught to read using either phonemic awareness, standard analytic phonics method, or synthetic phonics instruction over a 16-week period. The children's reading and spelling was tested at the conclusion of the period. Unlike students in the other groups, the synthetic phonics groups were significantly ahead of chronological age for reading and spelling. These students also quickly began to read independently. **Phase 2** provided for students who had studied using the other phonics programs to complete the synthetic phonics program by the end of Primary 1. The students' reading and spelling skills were re-tested towards the end of Primary 2 and it was found that all students' reading and spelling skills were above chronological age. (Johnston and Watson, 2005).

A seven-year longitudinal study examining the effect of synthetic phonics instruction on the word reading, spelling and reading comprehension performance of students who participated in Study 3 was released in 2005. It reported remarkable results:



At the end of Primary 7, word reading was 3 years 6 months ahead of chronological age, spelling was 1 year 8 months ahead, and reading comprehension was 3.5 months ahead (Johnston and Watson, 2005:8).

These scores were even more impressive as the students' initial receptive vocabulary knowledge scores indicated that they would be expected to perform below average chronological age on standardised tests:

However, as mean receptive vocabulary knowledge (an index of verbal ability where the average is 100) was 93 at the start of the study, this is a group of children for whom normal performance might be expected to be below average for chronological age on standardised tests. Therefore this may be an underestimate of the gains with this method (Johnston and Watson, 2005:8).

Significantly, the study found that synthetic phonics was particularly effective for teaching boys to read and spell, and that it helped students from less advantaged homes advance their reading and spelling skills, especially in the early years of primary school.

The study authors concluded that synthetic phonics instruction has a major and long-lasting effect on children's reading and spelling attainment (Johnston and Watson, 2005).



Appendix B

Australia moves towards synthetic phonics

Literacy assessment in Australia

There is significant concern about the declining literacy standards of young Australians. Despite some positive results emerging from the 2019 NAPLAN assessment, including improvements in Year 3 students' reading, grammar and punctuation, other results were disappointing. For example, Year 7 and Year 9 students' writing skills have declined since the assessment was introduced in 2008 (Martin, 2019).

International assessment results have also been disappointing. In 2016 Australia participated in the Progress in International Reading Literacy Study (PIRLS), which assesses the performance of students in their fourth year of schooling. Students from 50 countries participate in PIRLS every five years. While the 2016 PIRLS participants from Australia performed better than 2011 participants, they were still outperformed by students in 13 countries, including Singapore, Hong Kong, Ireland, Northern Ireland and England (all testing in English), as well as the Russian Federation, Finland and Poland. Eighty-one per cent of Australian Year 4 students reached the Intermediate international benchmark, which is the proficient standard for Australia (ACER, 2017).

Australian students also participated in the 2018 Programme for International Student Assessment (PISA). PISA assesses 600,000 15-year-olds from 79 countries every three years, comparing maths, reading and science performance. The 2018 PISA results demonstrated that Australian results were all in long-term decline (ACER, 2019). The results also demonstrated a distinction in reading ability by socioeconomic status, with one finding from the PISA results shows that students attending more affluent schools scored 61 points higher, on average, than students attending more disadvantaged schools (O'Neill, 2017).

Synthetic phonics instruction in Australian schools

In November 2004, the Australian Government announced the National Inquiry into the Teaching of Literacy. An objective of the inquiry was to review and analyse national and international research about literacy teaching approaches. Amongst other evidence, the inquiry considered the *Teaching Children to Read* (National Reading Panel, 2000), the Clackmannanshire studies (Johnston and Watson, 2005), submissions and classroom observations. The report recommended that teachers provide **systematic, direct and explicit phonics instruction** to ensure that children master the essential alphabetic code-breaking skills required for foundational reading proficiency (Rowe, 2005).

The Australian Curriculum includes phonics. However, it does not specify which pedagogy should be adopted (Buckingham, 2016).

"... teachers [should] provide systematic, direct and explicit phonics instruction to ensure that children master the essential alphabetic code-breaking skills required for foundational reading proficiency." (Rowe, 2005:14).



"The initial effects [of synthetic phonics instruction] are large ... Most interestingly, there are long-term effects at age 11 for those with a high probability of starting their school education as struggling readers. The results for our study suggests that there is a persistent effect for those classified as non-native English speakers and economically disadvantaged ..." London School of Economics (2016:20)



Towards synthetic phonics instruction in Australia

Individual states, which are responsible for administering the Australian Curriculum, are encouraging the use of synthetic phonics. As mentioned, the NSW Centre for Education Research advised that synthetic phonics is the 'most effective phonics method' (NSW Centre for Education Research, 2017:8). New South Wales will trial a synthetic phonics check in 2020. Amongst other initiatives to assist teachers and students, the NSW Government has developed *Effective Reading: phonics*, an online course for K-2 teachers (NSW Government, 2020).

Following a trial and independent review in 2017, a phonics check was rolled out to all Year 1 students in South Australia's public schools in 2018. The 2019 Phonics Screening Check results show state-wide improvement in the ability of year 1 students to decode and blend letters into sounds (Government of South Australia, 2019). The Government of South Australia released a research paper on the effectiveness of synthetic phonics that includes guidelines on how to teach phonics systematically (Konza, 2011).

Some schools in Queensland and Victoria have also conducted phonics check on Year 1 students (Singhal, 2019; Cook, 2017).

Synthetic phonics in England

Systematic synthetic phonics instruction has been a compulsory component of the primary school curriculum in England for over a decade. Since 2012, eligible Year 1 students have undertaken a phonics screening check that consists of 40 words and pseudo-words. Only 58% of students met the expected standard in 2012; this increased to 82% in 2019 (Department for Education, 2019).

In 2016, the London School of Economics concluded that a synthetic phonics program has long-term benefits for children from lower socioeconomic backgrounds and those who do not speak English as a first language. It also found that this teaching method has large, initial benefits for all students at age five and age seven (Machin, McNally and Viarengo, 2016).





Children build their phonemic awareness skills in *Who's in the Tree*.



Build A Fire teaches and reinforces high frequency words.



Practise reading decodable words in *The Daily Dozen*.

Appendix C

Fast Phonics supports phonemic awareness, vocabulary, comprehension and fluency

It is well-established that, in addition to phonics instruction, fluent readers must master:

- phonemic awareness the ability to hear and manipulate the different sounds in words
- vocabulary understanding the meaning of words, their definitions and context
- fluency the ability to read aloud with speed, understanding and accuracy
- comprehension understanding the meaning of text (Hempenstall, 2016).

Fast Phonics is primarily a synthetic phonics program, however it also incorporates these elements to support the development of successful readers.

Phonemic awareness is the ability to hear and manipulate phonemes (the smallest unit of sounds in spoken words). It is an aural/oral skill independent of print. Several *Fast Phonics* activities encourage learners to listen to and identify spoken sounds, and thus build phonemic awareness skills. For example, *Who's in the Tree* requires students to listen to a phoneme and then identify the correct grapheme, digraph, trigraph, etc. in later peaks.

Vocabulary knowledge is an important predictor of reading comprehension (Hulme, Snowling, Stevenson, 2004). In *Fast Phonics* students are systematically introduced to new words, many of which include visual support. The program's engaging activities allow learners to practise their new words, and their knowledge is reinforced in the decodable books that accompany each lesson.

Reading fluency refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. Fluency is manifested in accurate, rapid and expressive oral reading and is applied during and makes possible — silent reading comprehension (Pikulski and Chard, 2005). Hence, fluency bridges the skills of decoding and comprehension.

Fast Phonics activities build fluency and automaticity, including recall of **high frequency words** and vocabulary. For example, in *Build a Fire* students must correctly identify high frequency words, such as *the*, as they help Yeti build a fire. In *The Daily Dozen* learners have to read a word and match it to an image.





Captions and *Yes/No* build comprehension skills.

As previously mentioned, all peaks include decodable books. Initially these books are not narrated, which gives learners the opportunity to decode words and read independently. However, narrated text that models fluent reading is available if pupils do not pass the end-of-book quiz.

Reading comprehension is the process of engaging text for the purpose of extracting and constructing meaning (Snow, 2002). It is of paramount importance to academic success and future life outcomes (National Reading Panel, 2000; Snow, 2002).

The activities in *Fast Phonics* are specifically designed by education experts to teach skills that will allow children to read independently. For example, *Captions* requires students to read a caption and choose the best matching image. Similarly, *Yes or No* requires learners to read a question, such as 'Is the sun wet?' and determine the answer.

Comprehension skills are also required when learners access end-of-book quizzes. Each book includes 5–10 narrated comprehension questions and decodable answers.

References



Australian Council for Education Research (ACER). (2019). *PISA 2018: Australian student performance in long-term decline*. Retrieved from https://www.acer.org/au/aboutus/media/media-releases/pisa-2018-australian-studentperformance-in-long-term-decline.

Australian Curriculum, Assessment and Reporting Authority (ACARA). *Australian Curriculum, English, Foundation Year-Year 6*. Retrieved from https://www. australiancurriculum.edu.au/.

Buckingham, J., Centre for Independent Studies. (2016). Focus on Phonics: Why Australia should adopt the Year 1 Phonics Screening Check, Research Report.

Cambria, J., Guthrie, J. (2010). Motivating and engaging students in reading. *New England Reading Association Journal*, 46(1), 16-29.

Castles, A., Rastle, K., & Nation, K. (2018). Ending the Reading Wars: Reading Acquisition From Novice to Expert. *Psychological Science in the Public Interest*, *19*(1), 5–51.

Cheung, A. C. K., Slavin, R.E. (2012). The Effectiveness of Educational Technology Applications for Enhancing Reading Achievement in K-12 Classrooms: A Meta-Analysis. *Best Evidence Encyclopedia*. Retrieved form http://www. bestevidence.org/word/tech_read_April_25_2012.pdf.

Christensen, C.A., Bowey, J.A. (2005). The Efficacy of Orthographic Rime, Grapheme–Phoneme Correspondence, and Implicit Phonics Approaches to Teaching Decoding Skills. *Scientific Studies of Reading*, *9*(4), 327-349. doi: 10.1207/s1532799xssr0904_1.

Cook, H. (20 August 2017). Literacy wars: the proposed reading tests dividing schools. *The Age*. Retrieved from https://www.theage.com.au/national/victoria/literacy-wars-the-proposed-reading-test-dividing-schools-20170819-gxzu7d.html.

Duncan-Owens, D. (2009). Scripted Reading Programs: Fishing for Success. *Principal*, *88*(3), 26-29.

Ellis, S. (2007). Policy and research: lessons from the Clackmannanshire synthetic phonics initiative. In: *Approaching Difficulties in Literacy Development: Assessment, Pedagogy and Programmes.* [London] Sage, 39-51.

Expert Advisory Panel. (2017). National Year 1 Literacy and Numeracy Check; Advice to Minister. Retrieved from https://docs.education.gov.au/system/files/doc/other/ panel_advice_final_v2_public_version_cover_change.pdf.

Froyen, D. J. W., Bonte, M. L., van Atteveldt, N., & Blomert, L. (2009). The long road to automation: Neurocognitive development of letter-speech sound processing. *Journal of Cognitive Neuroscience*, *21*(3), 567-580. doi: 10.1162/jocn.2009.21061 2009.

Glazzard, J. (2017). Assessing reading development through systematic synthetic phonics. *English in Education*, *51*(1), 44-57. doi.org/10.1111/eie.12125.

Government of South Australia, Department for Education. (2019). *Phonics Screening Check 2019*. https://www. education.sa.gov.au/sites/default/files/2019-phonicsscreening-check-fact-sheet.pdf. Government of South Australia, Department for Education. (18 March 2020). *Phonics screening check*. Retrieved from https://www.education.sa.gov.au/teaching/curriculumand-teaching/literacy-and-numeracy/phonics-screeningcheck.

Guthrie, J. (2013). Best Practices for Motivating Students to Read. To appear in: Morrow, L. & Gambrell, L. Eds. (in press 2013). Best Practices in Literacy Instruction. Fifth Edition. [New York]: Guilford Press.

Guthrie, J. T., Laurel, A., Hoa, W., Wigfield, A., Tonks, S. M., Humenick, N. M., & Littles, E. (2007). Reading motivation and reading comprehension growth in the later elementary years. *Contemporary Educational Psychology*, *32*(3), 282–313. doi: 10.1016/j.cedpsych.2006.05.004.

Hempenstall, K. (2016). *Read about it: scientific evidence for effective teaching of reading. Centre for Independent Studies* (Buckingham, J., Ed.).

House of Commons Education and Skills Committee. (2005). *Teaching Children to Read*. Eight Report of Session 2004-05.

Jamshidifarsani, H., Garbaya, S, Lim, T., Blazevic, P., & Ritchie, J.M. (2019). Technology-based reading intervention programs for elementary grades: An analytical review. *Computers and Education*, *128*(2019), 427-451.

Johnston, R., Watson, J.E., (2004) Accelerating the development of reading, spelling and phonemic awareness skills in initial readers. *Reading and Writing*, *17*, 327-357.

Johnston, R., Watson, J.E. (2005). The Effects of Synthetic Phonics Teaching on Reading and Spelling Attainment; A Seven Year Longitudinal Study.

Johnston, R. and Watson, J. (2007). *Teaching Synthetic Phonics*. Exeter, [England]: Learning Matters.

Konza, D., and the Department of Education and Children's Services, Government of South Australia. (2011). *Phonics, Research into Practice*.

Louden, W. (2015). *High performing primary schools: What do they have in common?*. Retrieved from https:// pld-literacy.org/wp-content/uploads/2016/08/Highperforming-primary-schools-what-they-have-in-common. pdf.

Macaruso, P., Walker, A. (2008). The Efficacy of Computer-Assisted Instruction for Advancing Literacy Skills in Kindergarten Children. *Reading Psychology*, *29*(3), 266-287.

Machin, S., McNally, S., Viarengo, M. (2016). "Teaching to Teach" Literacy, CFP Discussion paper No 1425.

Martin, L. (28 August 2019). Naplan results 2019: year 7 and 9 writing skills have declined. *The Guardian*. Retrieved from https://www.theguardian.com/australia-news/2019/ aug/28/naplan-test-results-2019-year-7-and-9-writingskills-have-declined.

Muter, V., Hulme, C., Snowling, M. J., & Stevenson, J. (2004). Phonemes, rimes, vocabulary, and grammatical skills as foundations of early reading development: evidence from a longitudinal study. *Developmental Psychology*, 40(5), 665–681.

References



National Reading Panel. (2000). Report of the National Reading Panel, teaching children to Read: An Evidence Based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction.

New South Wales Government, NSW Centre for Education Statistics and Evaluation. (2017). *Effective Reading Instruction in the Early Years of School, Literature Review.*

New South Wales Government, Education. (18 February 2020). Effective Reading: phonics. Retrieved from https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/professional-learning/effective-reading-phonics.

New South Wales Government, Education. (25 March 2020). *Phonics Screening Check Trial*. Retrieved from https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/phonics-screening-check.

O'Neil, L. (5 December 2017). *Experts respond to PIRLS literacy study*. Retrieved from https://www.sydney.edu. au/news-opinion/news/2017/12/05/experts-respond-to-australias-results-in-pirls-literacy-study.html.

Piasta, S.B., Wagner R.K. (2010). Developing Early Literacy Skills: A Meta-Analysis of Alphabet Learning and Instruction. *Journal of Experimental Child Psychology*, *45*(1), 8–38. doi:10.1598/RRQ.45.1.2.

Pikulski, J.J., Chard, D.J. (2005). Fluency: Bridge Between Decoding and Reading Comprehension. *The Reading Teacher, 58*(6), 510-519. doi:10.1598/RT.58.6.2.

Piquette, N.A, Savage, R.S., & Abrami, P.C. (2014). A cluster randomized control field trial of the ABRACADABRA web-based reading technology: replication and extension of basic findings. *Frontiers in Psychology*, *5*, 1-11. doi: 10.3389/fpsyg.2014.01413.

Prescott, J.E., Bundschuh, K., Kazakoff, E.R, & Macaruso, P. (2017). Elementary school-wide implementation of a blended learning program for reading intervention. *The Journal of Educational Research*, *111*(4), 497-506. doi: 10.1080/00220671.2017.1302914.

Ritter, M. J., Park, J., Saxon, T. F., & Colson, K. A. (2013). A Phonologically Based Intervention for School-Age Children With Language Impairment: Implications for Reading Achievement. *Journal of Literacy Research*, *45*(4), 356– 385. doi: 10.1177/1086296X13504156.

Rose, J. (2006). Independent Review of the Teaching of *Early Reading*.

Rowe, K., and National Inquiry into the Teaching of Literacy. (2005). *Teaching Reading: Report and Recommendations.*

Singhal, P. (17 June 2019). Teachers told to ignore 'NAPLAN-style' phonics test for six-year-olds. *Sydney Morning Herald*. Retrieved from https://www.smh.com.au/ education/naplan-style-test-for-six-year-olds-teacherstold-to-ignore-new-phonics-check-20190617-p51yio.html.

Slavin, R. E. (1994). Quality, appropriateness, incentive, and time: A model of instructional effectiveness. *International Journal of Educational Research*, *21*(4), 141-157. doi: 10.1016/0883-0355(94)90029-9. Slavin, R. E. (2009). Educational psychology: Theory into practice (9th Ed.). [Boston]: Allyn & Bacon.

Snow C. (2002). Reading for understanding: Toward an R&D program in reading comprehension. Rand Corporation. Retrieved from https://www.rand.org/pubs/monograph_reports/MR1465.html.

Snow, P., Castles, A., Wheldall, K., & Coltheart, M. (2 December 2016). Why Australia should trial the new phonics screening check. *The Conversation*. Retrieved from https://theconversation.com/why-australia-should-trialthe-new-phonics-screening-check-69717.

Taboada, A., Tonks, S. M., Wigfield, A., & Guthrie, J. T. (2009). Effects of motivational and cognitive variables on reading comprehension. *Reading and Writing*, *22*(1), 85-106. doi: 10.1007/s11145-008-9133-y.

Tehan, D. (15 October 2019). *Bringing phonics into Australian schools*. Media Release. Retrieved from https:// ministers.education.gov.au/tehan/bringing-phonicsaustralian-schools.

Thomson, S., Hillman, K., Schmid, M., Rodrigues, S., & Fullarton, J., Australian Council for Educational Research (ACER). (2017). *PIRLS 2016: Reporting Australia's results*. Retrieved from https://research.acer.edu.au/cgi/ viewcontent.cgi?article=1000&context=pirls.

United Kingdom, Department for Education. (2019). *Phonics screening check and key stage 1 assessments in England, 2019.* Retrieved from https://assets.publishing. service.gov.uk/government/uploads/system/uploads/ attachment_data/file/851296/Phonics_screening_check_ and_key_stage_1_assessments_in_England_2019.pdf.

Watson, J.E. (1998). An investigation of the effects of phonics teaching on children's progress in reading and spelling. [PhD thesis]. [University of St Andrews]. Retrieved from http://hdl.handle.net/10023/2981.

Wigfield A., Gladstone J., & Turci L. (2016). Beyond Cognition: Reading Motivation and Reading Comprehension. *Child Development Perspectives*, *10*(3):190–195. doi:10.1111/cdep.12184.

Wigfield, A., Guthrie, J.T., Tonks, S.M., & Perencevich, K.C. (2004). Children's Motivation for Reading: Domain Specificity and Instructional Influences. *The Journal of Educational Research*, *97*(6), 299-310.

Wigfield, A., Guthrie, J. (1997). Relations of Children's Motivation for Reading to the Amount and Breadth of Their Reading. *Journal of Educational Psychology*, *89*(3), 420-432.

Wolgemuth, J., Savage, R., Helmer, J., Lea, T., Harper, H., Chalkiti, K., Bottrell, C., & Abrami, P. (2011). Using computer-based instruction to improve Indigenous early literacy in Northern Australia: A quasi-experimental study. *Australasian Journal of Educational Technology*, *27*(4), 727-750. doi: 10.14742/ajet.947.

