



## Putting the record straight about research on reading

*80 corrections, clarifications and comments on Ewing, R. (2018)  
“Exploding SOME of the myths about learning to read: A review of research on the role of phonics”.  
Sydney: NSW Teachers Federation*

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Debate over how children learn to read — and how best to teach them — has been raging for as many years as literacy has been perceived as a valuable skill, and universal literacy a desirable and obtainable goal.

For a long time, the academic debate about reading was largely theoretical and philosophical. People developed theories of reading based on observation and analysis of what skilled readers are doing when they read. These theories later included evaluations of the types of errors children make when they are learning to read, in order to build conceptual models of reading acquisition and why some children have particular difficulty learning to read.

Philosophies of reading — the purpose and consequences of reading — have also been influential on classroom teaching methods. Technology and advanced scientific methods have allowed a more precise understanding of the cognitive processes occurring when people are reading, and when they are learning to read, to be achieved in recent decades. However, this research-derived evidence is yet to become universally accepted.

The two current key competing theories of how children learn to read are, broadly:

### **1. Meaning comes first.**

This theory posits that since the purpose of writing is to convey meaning, children can only learn to read if they are ‘making meaning’, and that this process of making meaning will eventually lead them to discover how to translate writing into words they recognise and understand. Proponents of this theory often argue that words cannot be read without the context of a sentence, and that teaching the relationship between letters and sounds (phonics) is non-sensical without their meaning-based context.

### **2. Code comes first (but not only).**

This model argues that readers cannot make meaning from text if they cannot accurately translate the written word. It is based on the knowledge that written English is an alphabetic code devised to represent the sounds we use to say words in speech. It is supported by extensive scientific research showing that when children learn to read, they must first activate the pathway in their brain that connects print to speech. The conversion of print to speech (either aloud or mentally) through an understanding of phonics allows them to access the meaning of the word in their vocabulary and eventually to engage the complex cognitive processes involved in text comprehension.

These two theories of reading acquisition lead to different conceptions of effective teaching practice. The main point of contention is whether — and how — to teach phonics. The Meaning First theory, while acknowledging that children need to know the alphabetic principle, denies the need to teach it in an explicit and systematic way. Code First proponents agree that meaning is the objective of reading but argue that reading instruction must include explicit and systematic phonics instruction if this objective is to be achieved for all children.

Hundreds of experimental studies from multiple disciplines over the past four decades have supported the Code First theory of reading acquisition. In the early stages of reading instruction, phonics instruction is most effective when it is taught in an explicit and systematic way, within a broad literacy program that develops all five of the essential components of reading instruction — phonemic awareness, phonics, fluency, vocabulary and comprehension.

The most explicit and systematic way to teach phonics, and the method that is most closely aligned with cognitive science evidence on learning, is systematic synthetic phonics, or SSP. There is a tendency for this approach to be characterised by its critics as ‘phonics only’, or ‘phonics in isolation’; however this is demonstrably false. No serious researcher or educator would claim that phonics is the sole component of reading — rather, it is ‘necessary but not sufficient’. Of course, children need enriched and engaging literacy experiences of all kinds as well. This is not in question.

Teachers get a large amount of information about phonics instruction in general, and systematic synthetic phonics in particular, from a variety of sources. Among all that is written and said about reading instruction, teachers should be able to expect that academics in universities and their elected representatives in unions will provide them with information that is factually correct and evidence-based.

Unfortunately, that is not always the case. An example is the paper written by Robyn Ewing during her time as Professor of Education at the University of Sydney, and published by the NSW Teachers Federation. Titled ‘Exploding SOME of the myths about learning to read: A review of research on the role of phonics’, the paper perpetuates a number of misunderstandings and myths. It contains 80 instances of errors, misrepresentations, and incomplete explanations.

The first published version of the report contained the false statement that The Centre for Independent Studies — the organisation that produces the FIVE from FIVE project — is funded by the Liberal-National Coalition; despite the fact that the CIS states very clearly on its website that it accepts no government or political party funding, and never has. This has now been corrected but instead of replacing the incorrect statement with a neutral one, my organisation is described as ‘right wing’ in a clear attempt to imbue my evidence-based views with an ideological bias.

Engaging in *ad hominem* criticisms rather than honestly and accurately discussing facts and evidence, and the strengths and weaknesses of arguments, prevents progress toward acceptance and consensus. In what follows, there is no attempt to impugn the motives of the author or the publishers. Rather it is to demonstrate in a detailed and objective way, the flaws in their arguments and the inaccurate presentation of research to support their case.

This is not a matter of squabbling over insignificant detail. It is of vital importance that teachers receive accurate information. The table below identifies, corrects and clarifies many statements and claims made in Ewing’s report.

Page 4		
1	“...the suggestion that Australia might introduce a synthetic phonics check for all six-year-olds”	<b>INCORRECT:</b> It is not a ‘synthetic’ phonics check. It is simply a phonics check. It does not prescribe any particular teaching methods — it assesses how well children have learnt to decode words using phonics after almost two years of reading instruction.

2	<p>“...actions already taken in England by the government to change the national curriculum in line with the recommendations of the Rose Report (2006) were premature and this change in reading pedagogy has not yet been validated by research.”</p>	<p><b>INCORRECT:</b> There is evidence supporting the use of synthetic phonics instruction from a variety of sources.</p>
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**Page 5**

3	<p>“This review focuses on reading defined as a sociocultural meaning-making process.”</p>	<p>This is a sociological definition that has no relevance to the development of the complex cognitive processes that have been scientifically established as being necessary for children to learn to read.</p>
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4	<p>It must also be understood from the outset that parents’ education and socioeconomic status (Mullis et al, 2007; OECD, 2010a) and cultural orientations to reading (Williams, 2000; Heath, 1983) have a significant impact on the likelihood of children’s success in learning to read.</p> <p>Other predictors of reading include the centrality of:</p> <ul style="list-style-type: none"> <li>- a language and story-rich home environment, where reading and writing for different purposes is modelled and shared (Heath, 1983);</li> <li>- frequent and diverse linguistically-rich parent/child oral interactions;</li> <li>- the provision of a range of books in the home;</li> <li>- quality, literacy-rich preschool experiences; and</li> <li>- access to libraries (Krashen, et al, 2012).</li> </ul>	<p>These factors are distal predictors of reading success. They are not directly causative. They are mediated by proximal factors like hereditary predispositions, phonological awareness, oral language, vocabulary development, and other direct influences.</p> <p>Effective pedagogies are those that overcome, minimise or compensate for children’s genetic and environmental disadvantages, rather than using them as excuses for a child not having learned.</p>
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**Page 6**

5	<p>“...there is little evidence to support one form of phonics teaching in isolation from other strategies need when learning to read.”</p>	<p><b>INCORRECT:</b> There is a great deal of evidence supporting systematic and explicit approaches as the most effective form of phonics teaching, but no-one has ever argued that it should be ‘in isolation’. Good phonics teaching is ONE of the essential elements.</p>
6	<p>“This emphasis on isolated phonics in the early stages of reading...”</p>	<p><b>STRAW MAN:</b> ‘Emphasis on isolated phonics’ is a fabricated straw man. There is no such thing.</p>
7	<p>...together with the trend towards pseudo words...”</p>	<p><b>UNFOUNDED:</b> There is no ‘trend towards pseudo words’? This is another fabricated straw man.</p>
8	<p>“...will influence young children`s understanding of the nature of literacy and impact their attitude to reading. It will also affect parents’ ideas about how to help their young children.”</p>	<p><b>UNFOUNDED:</b> Pure speculation based on a false premise.</p>
9	<p>“The next section of the paper reviews research evidence about the best way to use phonics in the teaching of reading. It demonstrates that systematic phonics instruction is a valuable strategy in helping children learn to read, especially when tailored to meet individual students’ needs and used with other strategies in a broad and rich literacy curriculum.”</p>	<p>It is true that ‘systematic phonics instruction’ is a valuable strategy, but the definition of systematic phonics instruction employed in this review is at odds with the extant reading research literature.</p>
10	<p>“In summary, this review of the current policy prospects around the teaching of synthetic phonics — together with other reading research over the last two decades — has found no clear advantage for either of the two main psychological models of phonics acquisition: analytic or synthetic phonics.”</p>	<p>Either incorrect or poorly expressed. There is no ‘psychological model’ of phonics acquisition in research literature. However, reading research has found a clear advantage for systematic approaches, which can theoretically include both synthetic and analytic; but analytic approaches vary widely in the extent to which they can be described as systematic or explicit.</p>

11	“...the Language and Reading Research Consortium (2015) has suggested that too often these simple models of reading [referring to the Simple View of Reading (Gough & Tunmer (1986))] are problematic...”	<p><b>INCORRECT:</b> The LaRRC longitudinal research project <b>supported</b> an expanded version of the Simple View of Reading, in which decoding and language comprehension are strong component factors in reading but in which decoding decreases as a predictor as children become better readers, which is a strength of, rather than a counter to, the Simple View of Reading.</p> <p>See: LARRC (2015). Learning to read: should we keep things simple? <i>Reading Research Quarterly</i>, 50, 151-169. doi: 10.1002/rrq.99</p> <p><b>ALSO IMPORTANT:</b> The LARRC study also found that “decoding skill was best measured by word <b>and non-word</b> reading accuracy in the early grades”, which supports the inclusion of pseudo/non-words in a Year 1 Phonics Check.</p>
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**Page 10-11:** Many of the definitions provided are incorrect, incomplete or not standard, including:

12	The Australian Curriculum: English (2018) defines reading as: “Processing words, symbols or actions to derive and/or construct meaning. Reading includes interpreting, critically analysing and reflecting upon the meaning of a wide range of written and visual, print and non-print texts.”	<p>This definition applies to literacy rather than reading.</p> <p>Nonetheless, in order to ‘derive and/or construct meaning’ from text, you must first be able to accurately identify the words.</p>
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13	<p>“Decoding: Working out the meaning of words in text.”</p> <p>In decoding, readers draw on contextual, vocabulary, grammatical and phonic knowledge. Readers who decode effectively combine these forms of knowledge fluently and automatically, and self-correct using meaning to recognise when they make an error (The Australian Curriculum: English).</p>	<p>This is not a standard definition.</p> <p>This may be the Australian Curriculum definition but it is not the accepted or standard definition used in academic research literature, where decoding usually means ‘phonological decoding’ — using knowledge of letter-sound relationships to read a word.</p>
14	<p>“Orthography: The writing system that represents the meaning of a language.”</p>	<p><b>INCORRECT:</b> Orthography: The writing system that represents the meaning <i>and sounds</i> of a language.</p>
15	<p>“ Synthetic phonics: A part-to-whole approach that begins with focus on individual letters and emphasises teaching students to convert letters (graphemes) into sounds (phonemes).</p>	<p><b>INCORRECT:</b> Not universally true: Some synthetic phonics programs work from sound to print</p>
16	<p>“Embedded phonics: Children are taught letter-sound relationships during the reading of connected text. Since children encounter different letter-sound relationships as they read, this approach will not be a preconceived sequence, but can still be thorough and explicit.”</p>	<p><b>INCORRECT:</b> Embedded phonics does not meet the definition of explicit teaching.</p>
17	<p>“ Phonology: The system by which speech sounds of a language represent meaning.”</p>	<p><b>INCORRECT:</b> Phonology is the rules that govern the way sounds are <i>used in spoken language</i></p>
18	<p>“Recoding: Translating sound to print, with no associated meaning. Compare with decoding, defined above, which includes meaning.”</p>	<p><b>INCORRECT:</b> Recoding is the translation of <i>print to sound</i>. <b>Encoding</b> is sound to print (that is, spelling).</p>

19	<p>“Listening and responding to stories builds vocabulary and grammar knowledge and encourages children to read regularly, <b>which is by far the best way</b> of developing reading ability, writing competence, grammar, vocabulary, and spelling (Meek, 1988).”</p>	<p><b>INCORRECT:</b> Listening to stories is inarguably important for emergent literacy development but research conducted in the thirty years since Meek (1988) has shown that it is <b>not the best way</b> of developing reading ability.</p> <p>Treiman (2018) writes: “Uncritical acceptance of the idea that reading to children is what counts in making them good readers has contributed to failures to recognize the value of direct teaching.” [Treiman, R. (2018). <i>Psychological Science in the Public Interest</i>, 19, 1-4.]</p>
20	<p>“ What children attend to in reading lessons depends on what they and those around them think reading is for and how it can be used.”</p>	<p><b>UNFOUNDED:</b> There is no evidence for this claim.</p>
<b>Page 14</b>		
21	<p>“While constrained skills are necessary, they are insufficient for the development of complex reading (Stahl, 2011).”</p>	<p><b>INCOMPLETE:</b> Stahl (2011) also says that constrained skills should be taught to automaticity using <i>explicit, systematic instruction</i>.</p>
22	<p>“Stahl also points out that if highly constrained skills are over-emphasised, unconstrained skills can be compromised.”</p>	<p><b>MISREPRESENTATION:</b> Stahl (2011) was making this point in relation to <i>instructional time</i>; she was not suggesting that teaching children to decode words phonetically adversely impacts on vocabulary and comprehension development.</p>
<b>Page 15</b>		

23	<p>“Becoming a fluent and accurate reader means learning to use all the cue systems: semantic, graphophonic and syntactic cues, as well as having an understanding of Freebody and Luke’s (1990, 1999) reader roles (code breaker, participant, user and analyst).”</p>	<p><b>INCORRECT:</b> While multiple cues are helpful for determining the precise meaning of a word, there is no evidence that semantic and syntactic cues should be used when attempting to read unknown words. Torgersen et al (2018): “Using semantic and syntactic cues is ‘little better than guessing since they often lead to learners producing words other than the target word” [Research Papers in Education (2018), DOI: 10.1080/02671522.2017.1420816]</p> <p>Freebody and Luke’s ‘reader roles’ apply to theories of literacy, not models of how children <i>learn</i> to read.</p>
24	<p>“Graphological and phonological aspects of decoding print are a part of the reading process, not the first or the most or least important.”</p>	<p><b>INCORRECT:</b> Grapho-phonological decoding of print <i>is</i> the first part of learning to read.</p> <p>Nation (2017) writes: ‘There is a clear consensus and abundant evidence that ... phonological decoding is at the core of learning to read words’. [<i>Science of Learning</i>, 2, DOI: 10.1038/s41539-017-0004-7].</p> <p>There are multiple studies showing that word reading begins with the translation of print to sound (with attention paid to all letters in the word) which then engages the semantic memory.</p> <p>See for example: Grainger, J. (2008). Cracking the orthographic code: An introduction. <i>Language and Cognitive Processes</i>, 23, 1-35.</p>

25	<p>“It must also be emphasised that readers of different languages use different pathways for reading different scripts (for example, Chinese and English), and these different pathways are used in the same brain.”</p>	<p><b>INCORRECT:</b> Neuroscientific research has consistently shown a large degree of universality in the neural bases of language systems; reading in Chinese and English uses the same areas of the brain. The differences are in the <i>dominance</i> of different areas.</p> <p>See for example: Cao &amp; Perfetti (2016). Neural signatures of the reading-writing connection: Greater involvement of writing in Chinese reading than English reading, PLOS ONE, DOI:10.1371/journal.pone.0168414</p>
26	<p>“Initial, intensive and isolated phonics instruction has long been proposed as a starting point in the reading process.”</p>	<p><b>MISREPRESENTATION:</b> The use of the word ‘isolated’ here suggests that phonics is taught in the absence of other components of reading instruction. This is an inaccurate characterisation of arguments for the inclusion of systematic and explicit phonics in a comprehensive early literacy program.</p>
<b>Page 16</b>		
27	<p>“Initially, the meaning of the words are regarded as irrelevant and inconsequential — hence the use of nonsense words in the UK phonics check.”</p>	<p><b>INCORRECT:</b> In synthetic phonics, children learn about the meaning of the words they are learning to read. Meaning is not regarded as ‘irrelevant and inconsequential’. Nonsense words are used primarily for assessment (for valid, evidence-based reasons).</p>
28	<p>“A synthetic phonics test has been in place for Year 1 students in England since 2012. All Year 1 children are asked to “read” 40 words on a computer screen with no context.”</p>	<p><b>INCORRECT:</b> The words are presented in a printed booklet, not on a computer screen.</p>

29	“Nonsense words, such as “thrand”, “poth” and “froom” ensure the children are not using meaning to decode the words.”	<b>INCORRECT:</b> The purpose of nonsense or pseudo words are is to ensure they cannot be read from memory as sight words — they must be phonetically decoded.
30	“In 2018, the United Kingdom’s synthetic phonics check is being trialled in South Australia.	<b>INCORRECT:</b> The Phonics Check was trialled in South Australia in 2017, and was implemented in all the state’s government schools in 2018. Evaluation report of the 2017 trial: <a href="https://www.education.sa.gov.au/teaching/curriculum-and-teaching/numeracy-and-literacy/phonics-screening-check">https://www.education.sa.gov.au/teaching/curriculum-and-teaching/numeracy-and-literacy/phonics-screening-check</a>
<b>Page 18</b>		
31	RE. Clackmannanshire study ‘Reading comprehension was also not significantly improved by the synthetic phonics approach.’	<b>INCORRECT:</b> There was a statistically significant advantage in reading comprehension in Year 7. [See Johnson & Watson (2005) p.27]  Furthermore, at the end of the study there were no differences in reading comprehension between disadvantaged and advantaged children. That is there was no reading gap associated with SES. [See Johnson & Watson (2005) p. 39]

32	<p>Re. Clackmannanshire study:  “Further, the participant children’s socioeconomic backgrounds were not assessed, nor was their prior development and achievements before the study carefully recorded.”</p>	<p><b>INCORRECT:</b> It is clearly explained in Johnson and Watson (2005) that SES and prior attainment <i>were</i> assessed and considered.</p> <p>SES:</p> <ul style="list-style-type: none"> <li>- An index of deprivation was assigned to each school.</li> <li>- A questionnaire collected data on parent education level, attitudes to literacy learning, and use of books and libraries</li> </ul> <p>PRIOR DEVELOPMENT:</p> <ul style="list-style-type: none"> <li>- Pre-tests were given on: 1. letter knowledge; 2. emergent reading; 3. word reading; 4. spelling; 5. phoneme segmentation; 6. generating rhyme</li> </ul>
33	<p>Re. Clackmannanshire study:  “A close look at the study raises serious concerns and suggests there are a number of limitations in its design and the analysis of findings, and therefore limitations in the conclusions (for example, Wyse and Styles, 2007; Wyse and Goswami, 2008).</p>	<p><b>OMITTED:</b> Johnson &amp; Watson respond to these criticisms of their methodology in Johnson &amp; Watson (2016). ‘The trials and tribulations of changing how reading is taught in schools: synthetic phonics and the educational backlash’, in K Durkin &amp; HR Schaffer (Eds) (2016) <i>The Wiley Handbook of Developmental Psychology in Practice: Implementation and Impact</i>. Wiley: London.</p>

34	<p>“Scottish education policymakers did not proceed with a synthetic-phonics-first approach to literacy following the study.”</p>	<p><b>OMITTED:</b> Literacy has been declining in Scotland. The percentage of students achieving below the required level in the <i>Scottish Survey of Literacy and Numeracy</i> increased from 16% to 22% from 2012 to 2016. <a href="https://www.gov.scot/Publications/2017/05/7872/downloads">https://www.gov.scot/Publications/2017/05/7872/downloads</a> International comparisons are not possible because Scotland withdrew from participation from the <i>Progress in Reading Literacy Study (PIRLS)</i> after 2011, however England’s performance in PIRLS has improved, and student performance in the Key Stage and SAT literacy tests has improved since synthetic phonics was implemented.</p>
35	<p>Re. Rose Review          “It asserted that teaching early reading to children aged five or younger should focus on the ability to decode, with this shifting to comprehension only when children had mastered the alphabetic code...”</p>	<p><b>INCORRECT:</b> The Rose Review extensively discussed the importance of broad and rich language and literacy experiences. Specifically, it recommended: “Phonic work should be set within a broad and rich language curriculum that takes full account of developing the four inter-dependent strands of language: speaking, listening, reading and writing and enlarging children’s stock of words.” p. 70</p>

36	<p>The idea that children younger than five will benefit from a systematic synthetic phonics programme is arguably one of the most controversial recommendations of the Rose Report. It is worth noting that many children in other European countries, including Finland, do not start formal reading instruction until they are seven or eight.”</p>	<p><b>UNFOUNDED:</b> This recommendation is non-controversial when considering the following factors:</p> <ul style="list-style-type: none"> <li>- These are the ages at which children in England and Finland start full-time school.</li> <li>- The English writing system is more complex and takes longer to master than Finnish. Most Finnish children can read by the end of the first year of school. Thirty percent of Finnish children can read before they start school. [Olson, Evans &amp; Keckler (2006), <i>Journal for the Education of the Gifted</i> <a href="https://doi.org/10.4219%2Fjeg-2006-260">https://doi.org/10.4219%2Fjeg-2006-260</a>]</li> <li>- Almost all Finnish children have been in full-time formal child care since the age of two, which includes literacy teaching.</li> </ul>
37	<p>England’s Department for Education and Skills (DfES) commissioned a systematic review of approaches to the teaching of reading (Torgerson et al, 2006).</p>	<p><b>OMITTED:</b> There is a more recent version of this meta-analysis, published prior to the Ewing report: Torgerson et al (2018). ‘Phonics: Reading policy and the evidence of effectiveness from a systematic ‘tertiary’ review’, <i>Research Papers in Education</i>, DOI: 10.1080/02671522.2017.1420816</p> <p>It comes to the same overall conclusion as the previous version but also explains that the approach to instruction is not clear in many of the studies in the review and therefore the comparison does not have a high degree of certainty.</p> <p><b>IMPORTANT:</b> Torgersen et al (2018) also states that using semantic and syntactic cues to read unfamiliar words is ‘little better than guessing since they often lead to learners producing words other than the target.’</p>

38	<p>“Wyse and Goswami’s (2008) analysis of a range of English studies led them to conclude it was premature to state that reliable empirical evidence supports the claim that synthetic phonics instruction is the best early reading instruction for most children. They pointed out that the data support approaches are based on systematic tuition in phonics and that contextualised systematic phonics instruction is effective.”</p>	<p><b>OMITTED:</b> Wyse and Goswami (2008)’s definition of ‘contextualised systematic phonics instruction’ includes the important criteria that it should contain the key features of phonics (learning grapheme–phoneme correspondences, learning to segment and blend). These are in fact the key features of synthetic phonics.</p>
39	<p>“It is argued that the use of pseudo words works against or confuses the small number of children who are already reading in Year 1.”</p>	<p><b>UNFOUNDED:</b> There is no evidence that pseudo words ‘confuse’ children who are ‘already reading’. In contrast, Walker et al (2015), which is cited elsewhere in the Ewing report, states that ‘Over the course of the study a small number of respondents have expressed concerns that the Check disadvantages higher achieving readers. However, as reported in Chapter 2, the analysis of the NPD data found <i>no identifiable pattern of poorer performance on the Check than expected in those children who are already fluent readers.</i>’ (p.10). (My emphasis)</p>
40	<p>“Since the national rollout, the PSC has been strongly criticised by many teachers who assert the check provides them with little further information about their students’ reading and is therefore an unnecessary expense (for example, A Davis, 2012).”</p>	<p><b>UNFOUNDED:</b> This reference is for a paper published in the <i>first year</i> of the Check in England. In that year, only 58% of students achieved the expected standard, so actually this implies that teachers were aware their students had poor phonological decoding skills.</p>

41	<p>“The final report from the National Foundation for Educational Research (NFER), funded by the Department for Education (DfE) and undertaken by Walker, Sainsbury, Worth, Bamforth and Betts (2015).</p> <p>Entitled Phonics Screening Check Evaluation: Final Report, it revealed: “There were no improvements in attainment or in progress that could be clearly attributed to the introduction of the check, nor any identifiable impact on pupil progress in literacy for learners with different levels of prior attainment” (page 67).</p>	<p><b>IMPORTANT:</b> The 2015 NFER ‘final’ report was written after the Phonics Check had been in place for only 3 years.</p> <p>It was a natural experiment, rather than a controlled one with a comparison group; so inferences about causal relationships can only ever be cautious. However, the evaluation also found that teachers adjusted their teaching practice in response to student results on the Check.</p>
42	<p>“The synthetic phonics check in England has not delivered improvements in long term reading capabilities.”</p>	<p><b>MISREPRESENTATION:</b> The Phonics Check has been implemented six times. <i>The first cohort is only now at the end of primary school. Any positive impact of the Check will arise from changes to instruction informed by the Check’s findings and results. These changes to practice, if they occur, will take time to have an impact on initial literacy outcomes and longer still to show results in later years. The first cohort to do the Phonics Check participated in the most recent (2016) Year 4 PIRLS assessment and their results were historically high.</i></p>
43	<p>“Other research in England (for example, Ellis, 2016) suggested that although Year 1 children had improved their ability to pass the phonics test/check by 23 per cent since it was introduced in 2012, to date it had not significantly improved comprehension.”</p>	<p><b>UNFOUNDED:</b> Ellis (2016) is not included in the reference list. However (as noted elsewhere), in 2015, the percentage of students achieving at the expected standard in Year 2 reading comprehension had improved by 5 percentage points after almost a decade of stagnation.</p>

44	<p>“Howard Gibson and Jennifer England (2016) ... found no evidence that the ability to read nonsense words, such as “yune” and “thrand”, is a reliable predictor of later reading success.”</p>	<p><b>INCORRECT:</b> Gibson and England (2016) concluded that reading pseudo words is <i>no more powerful</i> as a predictor than reading real words, NOT that it is an unreliable predictor. However, in reaching their conclusion Gibson and England do not mention studies such as Fien et al (2010) <i>School Psychology</i>: “ Strong positive relations were found between Nonsense Word Oral Fluency gains and Oral Reading Fluency and Reading Comprehension scores for students who began the year with low to moderate and relatively high decoding skills”.</p>
45	<p>“A well known and interdisciplinary team, Goodman, Fries and Strauss (2016), address common misconceptions about reading and accurate word recognition.”</p>	<p><b>IMPORTANT:</b> This book by Goodman et al dismisses or ignores the cognitive science research on reading development and even <i>proposes that reading and writing should not be taught in school</i> — it will allegedly simply develop in the course of learning other subjects.</p>
46	<p>“To date, the administration of the phonics test has not improved reading comprehension scores (Department for Education, 2016).”</p>	<p><b>UNFOUNDED:</b> As explained above re KS1 reading levels</p>
47	<p>“Margaret Clarke’s... research and writing shows how a normalised public measure of “pass” and “fail” in the phonics check does not take into account different starting points for young children’s journeys in becoming readers.”</p>	<p><b>INCORRECT:</b> Clarke’s research is not systematic or objective. It is a combination of speculation, personal anecdote, and surveys of the views of teachers, parents and children.</p>
<p><b>Page 22</b></p>		
48	<p>“...many of the youngest children, particularly boys, are labeled reading failures early in their school career”</p>	<p><b>UNFOUNDED:</b> There is no evidence of this.</p>

49	<p>“Some of those children confused by the pseudo words have been those who could already read, or have attempted to make these into real words.”</p>	<p><b>INCORRECT:</b> The evaluation by Walker et al (2015) cited in Ewing’s report found that this was <i>not the case</i>. It is more likely that the Phonics Check may have revealed that children who teachers believed to be ‘good readers’ actually had weaknesses in decoding.</p>
50	<p>“Darnell, Solity and Wall (2017) ... found that children can achieve the pass grade of 32 from 40 with only limited phonic knowledge.”</p>	<p><b>IMPORTANT:</b> If it is indeed possible to achieve the pass grade with only limited phonic knowledge, why did only 58% of children achieve the pass grade in the first year of the Check? They must not have even had ‘limited phonic knowledge’. The proportion achieving the pass grade is now 81% so according to this statement, 1/5 children still do not even have limited phonic knowledge.</p>
51	<p>“Adoniou (2017a and b) also points out that as the English test only tests single syllable words with regular phonic patterns...”</p>	<p><b>INCORRECT:</b> The Phonics Check does <i>not</i> test only single syllable words (eg. from the 2018 Check — delay, modern, saucers, charming). The Check only contains words with regular phonic patterns precisely because it is a PHONICS check for children in Year 1.</p>
<b>Page 23</b>		
52	<p>“Despite the English research, in Australia the Federal Minister for Education, the Hon Simon Birmingham appointed an “expert panel”, chaired by Dr Jennifer Buckingham, Centre for Independent Studies. It should be noted that the panel was not representative of a range of reading experts.”</p>	<p><b>INCORRECT:</b> The panel included people with post-graduate qualifications in reading instruction and allied disciplines, as well as experienced educators.</p>

53	<p>“Whole-language experts such as Ken Goodman (1995) agree that children have to acquire the ability to decode.”</p>	<p><b>INCORRECT:</b> Ken Goodman describes reading as a ‘psycholinguistic guessing game’, and wrote that matching letters with sounds “is a flat-earth view of the world, one that rejects modern science about reading”.</p> <p>See: Goodman, K. (1986) <i>What’s Whole in Whole Language?</i> New Hampshire: Heineman. p. 37.</p>
54	<p>Re. NSW CESE report on effective reading instruction in the early years of school:</p> <p>“It examines only five elements in the learning to read process (phonemic awareness, phonics, fluency, vocabulary and comprehension), omitting some of the other important predictors of success described earlier in this review.”</p>	<p><b>UNFOUNDED:</b> This is an invalid criticism of the CESE report. The report focussed on the factors associated with <i>in-school teaching practices</i> that have been shown to be effective in reading achievement. A child’s SES and home literacy environment are not within the influence of teachers.</p>
<b>Page 24</b>		
55	<p>RE. CESE report</p> <p>“Disappointingly, this report defines reading simplistically and only considers evidence in one research paradigm.”</p>	<p><b>UNFOUNDED:</b> The CESE report correctly relies on research evidence from studies with sound experimental methodologies</p>
56	<p>“South Australia announces a trial of the English phonics check.”</p>	<p><b>INCORRECT:</b> The South Australian trial of the Phonics Check was announced in February 2017 and conducted in August 2017. In 2018 the SA government announced the Phonics Check would be implemented state-wide in August that year.</p>

57	“The check has proven to be no more accurate than teachers’ judgements in identifying children with reading difficulties.”	<b>INCORRECT:</b> This claim is made twice in this report without evidence. The evaluation of the SA trial found that “Numerous respondents reported feeling surprised and disappointed by the results based on students’ known reading abilities and results on the Running Record.”
58	“Perhaps most concerning is that this emphasis on isolated phonics in the early stages of reading, together with a new emphasis on pseudo words, will influence young children’s understanding of the nature of literacy and impact their attitude to reading.”	<b>UNFOUNDED:</b> Synthetic phonics is not ‘isolated’ and there is no encouraged ‘emphasis on pseudo words’. No evidence is provided that a phonics check would ‘influence young children’s understanding of the nature of literacy and impact their attitude to reading’.
59	“The relationship between oral and written language, the importance of story and being read to, and the play with words are all ignored in focusing solely on synthetic phonics.”	<b>MISREPRESENTATION:</b> Nobody suggests a focus ‘solely on synthetic phonics’. This is a ‘straw man’ argument.

**Page 25**

60	Section titled: “Phonics instruction needs to be embedded in a broad literacy curriculum”	This is not disputed and is not a counter argument to systematic, explicit phonics instruction within a broad literacy curriculum.
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**Page 26**

61	Section titled: “Reading pedagogy needs to be tailored to meet individual student needs”	This section is built around the false premise that systematic synthetic phonics = only phonics and nothing else. None of the research presented in this section provides a counter to the evidence supporting systematic and explicit phonics within a high quality comprehensive literacy program.
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**Page 27**

62	<p>“Tse and Nicholson (2014)” found that compared to big-book reading and phonics-alone programs, combined embedded instruction appeared to have no comparative disadvantages, but it had considerable advantages in supporting low socioeconomic students’ literacy.</p>	<p><b>IMPORTANT:</b> The two most effective strategies were those that had a systematic phonics component. The ‘Big Book’ element <b>ONLY</b> worked when combined with phonics. The phonics element worked without the Big Book element but <b>worked better</b> with it.</p>
63	<p>“Hattam, Comber, Kerkham and Thomson ...described the “uncommon pedagogies” of successful teachers who were able to support the literacy learning of at-risk students with a rich repertoire of teaching strategies were most successful in improving their students’ literacies. They were able to build on the knowledge and experiences that students had, connecting these to school learning, designing open-ended tasks that required complex thinking and use of language, as well as providing opportunities to contemplate significant life issues through engaging with authentic texts. This study resonates with Louden et al’s (2005) research reported more than a decade earlier.”</p>	<p><b>OMITTED:</b> Bill Louden’s much <i>more recent 2015 study</i> of high performing primary schools in Perth, which found that all the schools in the study taught synthetic phonics, is not cited in Ewing’s report. <a href="https://www.education.wa.edu.au/documents/43634987/44524721/High+performing+primary+schools+-+what+they+have+in+common.PDF/efe31f7e-59df-581b-d072-a58490917082">https://www.education.wa.edu.au/documents/43634987/44524721/High+performing+primary+schools+-+what+they+have+in+common.PDF/efe31f7e-59df-581b-d072-a58490917082</a></p>

64	<p>“Giving young learners the message that written language can only be comprehended when converted into audible or inaudible speech to which the reader “listens” may encourage some young learners to give up the search for meaning and concentrate on getting the sounds right, thus creating excellent recoders (rather than decoders) because they cannot understand what they have recoded.”</p>	<p><b>INCORRECT:</b> That beginning readers make primary use of the visual-phonological neurological pathway before engaging the semantic memory is not a “message”. It is what scientific research has established as the cognitive process in learning to read. Young learners cannot access (‘search for’) meaning of a word if they don’t know what the word is.</p> <p>Nation (2017): “There is clear consensus and abundant evidence that in alphabetic languages, phonological decoding is at the core of learning to read <u>words</u>.” [Nature npj Science of Learning 2(3)]</p> <p>NOTE: In the vast majority of research, “decoding” is a shorthand term for “phonological decoding” or sometimes phonological recoding. That is, print-sound translation (which then activates meaning if the word is known).</p>
65	<p>“Goswami suggested that trying to teach reading too early can be counterproductive for some children.”</p>	<p><b>INCORRECT:</b> This suggestion is not in the Goswami (2005) paper cited.</p> <p>Goswami (2005) wrote: “The child needs to acquire the system for mapping distinctive visual symbols to units of sound (phonology)” and “Visual or holistic learning does not represent a viable alternative to phonological recoding.”</p> <p>These statements directly contradict the argument made by the author.</p>

66	<p>“Strauss and Altwerger (2007) argue that the logographic nature of the English alphabet, together with neuroimaging research, does not distinguish the phonological processing model of reading from the graphophonic processing of a meaning centered model.”</p>	<p><b>INCORRECT:</b> The English alphabet and writing system is not logographic. Also, this sentence does not make sense.</p>
67	<p>“10–15 per cent of children experiencing reading difficulties who complete intense remedial phonological instruction continue to struggle.”</p>	<p><b>MISREPRESENTATION:</b> This is an expected epidemiological finding. Even with the most effective instruction and intervention, some children — especially those with disabilities or learning difficulties — will continue to need support. The objective is minimise the number of children who struggle and to reduce the severity of their difficulties.</p>
68	<p>“Another area of investigation is eye movement research (for example, Mantei and Kervin, 2016; Paulson and Freeman, 2003), which tracks the reader’s actual eye movement during the reading process. Experienced readers look at only 20-70 per cent of the words in a line.”</p>	<p><b>INCORRECT:</b> While this statistic itself is debatable (Paulson and Freeman is not included in the reference list), the larger point is: even if true, it applies to <b>experienced</b> readers, whose cognitive processes are dissimilar to the cognitive processes for novice readers.</p> <p>Other eye-tracking studies and research on the effect of letter position on reading rate show that <b>both novice and skilled readers attend to all the letters in a word</b> when reading.</p> <p>See: Grainger, J. 2008. Cracking the orthographic code: An introduction. <i>Language and Cognitive Processes</i>, 23, 1-35; Rayner, K, White, SJ &amp; Liversedge, SP. 2006. Reading words with jumbled letters: There is a cost. <i>Psychological Science</i>, 17,192-193.</p>

69	<p>“Mantei and Kervin (2016) studied children who were experiencing difficulty with reading books when their reading response differs from what is on the page.”</p>	<p><b>INCORRECT:</b> Mantei and Kervin (2016) is a case study of <i>one child</i>.</p>
<b>Page 30</b>		
70	<p>“Canadian researchers Ouellette and Senechal (for example, 2008, 2012, 2017) ... have consistently demonstrated a causal relationship between children’s guided invented spelling and success in learning to read over and above alphabetic knowledge and phonological awareness.”</p>	<p><b>INCORRECT:</b> Ouellette &amp; Senechal’s findings extend rather than challenge the research evidence for systematic phonics instruction. Ouellette &amp; Senechal found that invented spelling makes a unique contribution to predictive models of reading, that is, it is <b><i>dependent on phonic knowledge, but it is not simply a proxy for it.</i></b></p> <p>Other researchers have established that the strongest precursors for invented spelling are phonological awareness and letter-sound knowledge: children can only invent phonetically plausible spellings if they have some knowledge of letter-sound correspondences.</p>

71	<p>An important emerging area of research, led by Bowers and Kirby (2010) and Bowers and Bowers (2017), examines English as a morpho-phonemic system and suggests that the privileging of phonics without meaning is insufficient.”</p>	<p><b>INCOMPLETE:</b> It is widely accepted that teaching morphology and etymology is important for reading and writing development. There is debate, however, how early these elements should be introduced.</p> <p>Given that morphemes are comprised of phonemes, there is a strong argument, and evidence, that a basic mastery of phonics is necessary before morphemic analysis is introduced. This evidence shows that novice readers engage a phonologically-mediated pathway to access meaning, that is, meaning is activated by the sound of the word.</p> <p>Taylor, Davis and Rastle (2017) and Rastle &amp; Taylor (2018) describe research showing that “while enhancements to meaning-based instruction can assist pupils to infer the meaning of unfamiliar words, these methods actually disadvantage long- term learning of those words. Their research indicates that reading instruction should have an “emphasis on spelling-sound regularities in the initial stage of learning to read, and increasing emphasis on spelling-meaning regularities as children gain experience with text”.</p> <p>[Taylor, Davis &amp; Rastle (2017). <a href="http://dx.doi.org/10.1037/xge0000301">http://dx.doi.org/10.1037/xge0000301</a>; Rastle &amp; Taylor (2018). doi: 10.1177/1747021818775053]</p>
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72	<p>“Three international reading inquiries often quoted as recommending synthetic phonics do not privilege synthetic phonics.”</p>	<p><b>INCORRECT:</b> One of these reviews — the ‘Rose review’ in 2006 — found strongly in favour of synthetic phonics.</p> <p>Furthermore, the explicit and systematic teaching methods favoured in the other two inquiries and reviews — the US National Reading Panel in 2000 and the Australian National Inquiry into Teaching Literacy in 2005 — most closely resemble what is now generally referred to as ‘synthetic phonics’.</p>
73	<p>"In fact, overusing phonics instruction can impede reading for meaning."</p>	<p><b>UNFOUNDED:</b> ‘Overuse’ of phonics is not defined and no evidence is cited to support this claim.</p>
74	<p>“...it is also accurate that some children will need explicit instruction in decoding to develop this. Yet an estimated 75-80 per cent of children do not need this (Adoniou, 2017).”</p>	<p><b>UNFOUNDED:</b> There are two Adoniou (2017) citations in the reference list. Neither of them contains this statistic.</p>
75	<p>“If synthetic phonics is legislated in Australia, there will be many consequences.</p> <p>Not least of these is that we will return to the use of contrived readers to ensure children practice their phonic knowledge.”</p>	<p><b>MISREPRESENTATION:</b> There are no serious discussions of <i>legislating</i> synthetic phonics.</p> <p><b>MISREPRESENTATION:</b> ‘Contrived readers’ are used in all schools, however the most common type is ‘levelled readers’ (usually levelled against non-evidence based ‘PM benchmarks’). These book series start with predictable text that encourages children to guess unknown words rather than use phonic skills to decode them.</p>
<p><b>Page 32</b></p>		

76	“There is no evidence to support phonics instruction in isolation as the one best method for early reading.”	<b>MISREPRESENTATION:</b> Nobody has claimed that ‘phonics in isolation is the one best method for early reading’. Phonics is one essential component of early reading instruction, and the most effective method of teaching phonics is systematically and explicitly.
77	“While determining how to best help students struggling with the reading process is an important area of research, it is highly inappropriate to suggest its relevance for all children.”	<b>INCORRECT:</b> Many children ‘struggling with the reading process’ are struggling because their early reading instruction was ineffective. High quality initial classroom teaching reduces the number of children needing intervention and is therefore relevant.
78	“Many current discussions around learning to read fail to take into account the complexity of English orthography. The English language does not have a one-to-one visual representation of all spoken sounds, making it a difficult code for some young children to break.”	<b>INCORRECT:</b> Proponents for systematic and explicit phonics instruction provide detailed accounts of the complexity of the English orthography. This is complexity <b>is precisely why</b> systematic and explicit instruction in the phonology and orthography of written English is so important, it is not an argument against it. [Eg. Louisa Moats (1998), <i>Teaching Decoding</i> <a href="https://www.liaustralia.org/client/documents/Teaching_decoding_moats.pdf">https://www.liaustralia.org/client/documents/Teaching_decoding_moats.pdf</a> ]
79	“Processing letter by letter, blend by blend or word by word is very slow and not a characteristic of experienced readers.”	<b>INCORRECT:</b> This <b>is</b> what beginning readers do, and what skilled readers do when they encounter a new or unfamiliar word.

80	“...frequent assertions that teacher educators are not teaching pre-service teachers to use the range of reading strategies when teaching evidence, including synthetic phonics that enable children to learn to read, is without basis.”	<b>INCORRECT:</b> Multiple studies have found that <i>pre-service and graduate teachers do not know the basic language terms and concepts</i> that underpin evidence-based reading instruction, including but not only systematic phonics. [See for example Stark et al (2015) DOI: 10.1007/s11881-015-0112-0]
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