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DECODABLE BOOKS: YES? NO?

WHAT?
WHY?
WHEN?
WHO?
HOW?

AN INFORMATION DOCUMENT FOR TEACHERS

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Literacy Innovators serves as a conduit for fresh, if not revolutionary, high-quality literacy products and programmes that are purposely designed for educators teaching primary and secondary school students.

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INTRODUCTION

A MESSAGE FROM THE AUTHOR

Many teachers are wondering whether they need to include decodable texts in their teaching and, if so, where, how, when and for whom. This document has been written for those teachers so that they can make an informed decision based upon the best available evidence.

I think few teachers will have had the time and inclination to do the background work I have done on this topic, so my intention is to present, in an unbiased way, what the research says as well as the opinions of some leading scholars.

Section 2 of this paper has brief summaries of all the available research on the subject of decodable readers. It is not, strictly speaking, a literature review or annotated bibliography but rather a resource for teachers to build on.

One of the biggest challenges when studying the efficacy of a type of text is to isolate the text from the teaching and the teachers and other environmental factors all within a randomised controlled trial. Only one of the research studies (Price-Mohr & Price.C, 2020) has managed to do this.

I have not felt the need to be constrained to peer-reviewed studies or those in the most prestigious journals, although many do fit those requirements.

I have not followed any particular format other than to present only what I have found relevant to the topic of decodable readers.

I have leaned heavily on others by quoting directly as I felt inadequate to say it better.

I shall not be giving you any answers, only what others have discovered through their own research or reviewing research of others. You must come to your own conclusions. I did not have access to several digital libraries but have found most of the papers in the references freely available online. A few I have needed to purchase, and a few I have had a colleague at a university access for me.

Where possible, I have included a URL for you to access a paper in order to add more substance to my very brief summaries that don't begin to do justice to the work of the authors.

Finally, may I say that I have no intention of joining in any of the tedious polemics that the teaching of reading seems to attract: code-based/whole language, predictable/decodable, synthetic/analytic phonics, phonics/no phonics, multiple cueing/only phonic cueing. I am baffled by the need to create an 'us and them' or to need to be 'right', to occupy extreme points of view, to disrespect our rich history of teaching reading and to not understand the reality that the knowledge of the reading acquisition process is complex, individual, cumulative, culturally specific and evolves with society.

I welcome your emails if you wish to contact me, but please do so in a way that constructively adds to the topic – for example, research I have missed or have misquoted.

Chuck

CHUCK MARRIOTT

A BRIEF HISTORY OF TEXT DESIGN

When a child is taught to read, there are principally three things needed: the teacher, the child and the text. While there has been extensive research into teaching methods and learner needs, the texts to use with beginning readers have received far less attention. This seems odd given the importance that text plays in the reading acquisition process. There are a few names that stand out in the study of texts, and among others, this document shall draw upon the work of Elfrieda Hiebert who has done extensive work to research and design texts for early reading instruction. Her website, www.textproject.org, freely provides many of her academic papers as well as a wealth of resources for teachers, parents and students. Heidi Mesmer, a close colleague of Hiebert, has also made a significant contribution to our understanding of texts and especially what is currently termed 'decodable' text.

The history of the texts that have been used for beginning readers is well described in Hiebert (1999) so I shall touch only briefly on the subject. Three types of text have been popular over time, each competing with the previous one with a different single focus (criterion): high-frequency words, phonically regular words and those based on meaningfulness and natural language that have included predictable text and levelled text. Hiebert discusses the history from an American perspective and while the development and use of beginning readers in the USA has not always followed the same path in the United Kingdom, New Zealand or Australia, there have been many similarities.

"When a child is taught to read, there are principally three things needed: the teacher, the child and the text."

Often the difference has been a matter of timing and degree and the swing of the pendulum. At one time or another, in all four countries, the dominant text for beginning reading has been either controlled text as in the Janet and John series (United Kingdom, Australia, New Zealand) and the Dick and Jane series (USA, Canada) or phonics readers or text that has had fewer controls so that the text more resembles natural language.

For the past 50 years, levelled texts based on the use of natural language have dominated in New Zealand schools in the early years. Recently, there has been increasing use of phonically controlled text (decodables) in both New Zealand and Australia. Publishers have responded with great gusto to supply their version of decodables driven by consumer demand and a commercial imperative (Allington, 2013).

DECODABLE BOOKS:

WHAT? WHY? WHEN? WHO? HOW?

WHAT ARE DECODABLES?

In the past, there have been various iterations of readers that offered controlled phonically regular text. Some of the original ones were simply called phonics readers. The term 'decodables' came into being in 1995 (Adams, 2008). Simply put, decodables are texts for beginning readers where the majority of the text has a phonically regular match between letters and sounds and where there is a relationship between the phonics lessons taught and the texts introduced. This kind of decodable has a *lesson to text match* and has been termed LTTM (Mesmer, 1999, 2001). There are some texts that are almost totally phonically regular – *Pat can pat the fat cat and rat.* More frequently, there is a degree of phonic regularity so that the text also contains function/structure words that are not decodable — *the, was, to, be.*

There are also texts that have a degree of phonic control but are not specifically aligned to the phonics lesson (Juel & Roper-Schneider, 1985).

DECODABILITY

Some researchers have noted that it is more useful to view decodables not as a *text type* but rather as a *characteristic* of text (Mesmer, 2019; Jenkins, Peyton, Sanders & Vadasy, 2004; Cheatham & Allor, 2012). Viewed this way, a text is more or less decodable depending upon the phonic regularity of the words presented. In other words, it may be more useful to look at the degree of decodability that a book has. The advantage for schools is that, upon inspection, a number of the books already in their possession may be of high decodability.

There has been no research to determine the degree of decodability in a text that is optimal for decodables. From her analysis of texts, Mesmer (2000) says that they are texts with a minimum of 64% decodability. Beck (1997) recommended that 70–80% would be about right.

FOR A CONCISE EXPLANATION OF DECODABLE TEXT,
click on the QR code or visit: textproject.org/teacher-educators/frankly-freddy/what-exactly-is-a-decodable-text/.

"Simply put, decodables are texts for beginning readers where the majority of the text has a phonically regular match between letters and sounds and where there is a relationship between the phonics lessons taught and the texts introduced."

LTTM

The foundation for the lesson to text match approach was laid down by Chall in 1967 (Frey, 2012). The approach is predicated on high-quality phonics lessons being taught that are in step with the texts as they are introduced. The reasoning is that phonics elements can be introduced at a careful pace and sequence and the children are able to practise that learning on text. Theoretically, the process would support the children to read texts successfully right from the earliest stages. As they read and re-read texts, they would build up a corpus of sight words and embed phonic knowledge. The words that are not decodable such as function or structure words would be taught prior to the children reading the text.

"The reasoning is that phonics elements can be introduced at a careful pace and sequence and the children are able to practise that learning on text."

CRITICISMS OF LTTM:

- In the beginning stages of the texts, limited letters are able to be used, which limits the number and quality of words that can be constructed. This can result in awkward sentence structures and simplistic and sometimes nonsensical storylines (Frey, 2012).
- Publishers of decodable books will often try to create a point of difference to sell their product, resulting in an inconsistency between series of books. "The different operationalizations of LTTM and regularity impact the interpretations of findings and their potential applicability" (Mesmer, Hiebert & Cunningham, 2010)
- If all children are to move through the series, how does this process cater for differentiated instruction?
- LTTM requires that the phonics item be taught before the book is introduced. Taught is not the same as learned. Where do struggling readers fit into this?
- With the focus on decodability, there is not sufficient repetition of words in order to build sight words (Hiebert & Martin, 2008).
- In order to meet the needs of the text, singleton words of little utility are used (Frey, 2012).
- While one of the reasons for using these texts is to reduce the cognitive load, the reverse has been experienced, and struggling students have found that the texts were, in fact, too difficult (Frey, 2012).
- The theory that decodables are based on is too simple (Mesmer, Hiebert & Cunningham, 2010).

MULTIPLE CRITERION TEXTS

Rather than basing the design of texts on a single criterion, even for beginning readers, there has been a call for texts to be based on a number of inbuilt scaffolds. Mesmer (1999, 2010) says decodability is only one scaffold in emergent text. Hoffman, Sailors and Patterson (2002) present a case for beginning readers to be based upon decodability, predictability and engaging qualities. Jenkins, Vadasy, Peyton and Sanders (2003) recommend the use of other texts as well that may be based upon literature, language patterns, predictability or high-frequency words. Menon and Hiebert (2005) suggest texts that factor in the aspects of linguistic content (nature, number and repetition of high-frequency words, inclusion of repetitions of rhymes, concrete words as well as decodability) and cognitive load (number of unique words, text length, predictability of syntactic structures, story patterns, genre and match between illustrations and text). Cheatham and Allor (2012) mention that there is a need for beginning texts to also pay attention to other aspects such as high-frequency words, high-utility phonics patterns (rhymes) and high interest.

Frey (2012) offers the following alternatives:

> As part of my research, I've created a project using public resource photos from the internet and basic desktop publishing software to design a set of high quality "public domain" books for use in early reading development. The books support phonics-based classroom instruction by including a high concentration of phonetically regular words and the most commonly used sight words. However, the books are written using pictures and stories that make sense, with simple language structures that support independent reading and language development. For more information visit: mustardseedbooks.org.

WHY ARE DECODABLES USED?

Marilyn Adams (2008) makes the 'why' very clear: "to convey the message that phonics is worth learning and worth using" (p39). Whether one uses a strict LTTM where the decodable texts are specifically matched to the phonics teaching or a more flexible option where the decodable texts are used to provide more opportunities to successfully read words by decoding or multiple criteria texts as described above, decodable texts are inherently tied to phonics teaching. They are constructed so that children can practise their phonics learning on specially constructed texts. Should they be used? The research is divided on this, and after reading the summaries, you can arrive at your own conclusion.

"Obviously, there is little point in using a decodable reader with a child in the pre-alphabetic phase. Of greater importance during that phase of development is rich literature, a variety of genres and predictable and rhyming books."

WHEN ARE DECODABLES USED?

The research on when to use decodable text is very thin. There have been some suggestions based upon the model of reading acquisition proposed by Ehri (1995). Although there have been several similar models proposed, Ehri's appears to be the most influential. Her model of reading development is founded on the principle of alphabetic processing and proposes four phases that ultimately lead to fully automatic reading. It is necessary to briefly describe these phases in order to proceed:

- **Pre-alphabetic:** Children recognise words by their salient features – *McDonald's* – not by the individual graphemes.
- **Partial alphabetic:** Children use some letters of words, mostly the first and last, together with the sounds in order to start to read words.
- **Full alphabetic:** The reader now is more fully mapping phonemes onto graphemes in order to read the word and develop the knowledge of that word as a sight word.
- **Consolidated alphabetic:** Through the continuing practice of reading words, the known units increase in grain size from single letters to larger units to full words — *br-o-k-e-n, br-oken, broken.*

Note that these are phases and not steps as the movement from one to another is rarely well defined.

Obviously, there is little point in using a decodable reader with a child in the pre-alphabetic phase. Of greater importance during that phase of development is rich literature, a variety of genres and predictable and rhyming books. Once children are aware of the alphabetic principle and know some basic phonics and how to start applying that knowledge to reading and writing, this may be the time to start thinking about using decodable readers. Mesmer (1999, 2000, 2019) advocates the use of decodables with children between the partial alphabetic and full alphabetic phases. After that point, children will need to move on to authentic texts as they will learn more rapidly from them.

Adams (2008), when writing of the process she used to develop decodables, says that, before the children opened a decodable reader:

> the children had already been engaged in a great deal of letter-sound, segmenting, and blending practice with the same sorts of single syllable, short-vowel words. Thus, the challenge at this point, as we saw it, was less teaching individual letter-sound correspondences than leading children to make use of these correspondences in the course of connected reading and, through that, to build larger orthographic structures into their reading repertoire. (p39)

Mesmer, writing in her blog (blog.heinemann.com/fear-not-the-decodable-why-when-how), says:

> Decodables should be used once children are extremely solid with all letter-sounds and are ready to fully decode. They should have a solid concept of word and be able to accurately point to both single-syllable and multisyllabic words in a predictable text, using beginning sounds to help them. I suggest that children be able to decode a simple c-v-c word prior to using decodables.

This implies starting to use decodable texts when well into the partial alphabetic phase.

Brown (1999) describes using decodable texts with a child who was in the partial alphabetic phase and was learning about 'breaking the code'.

So with virtually no research as a guide, an educated guess is the best one can do. There are no answers that point to an exact time decodables can be started or at what point in the phonics learning a child should be at.

The end point for using decodables is another consideration. If the idea is to get children reading more authentic and aesthetic text as soon as possible as Adams suggests, perhaps Mesmer (2019) is correct:

> I believe that decodables are most useful for propelling children through the period in which they are learning to decode words or blend sounds together. They should be used when single syllable word decoding is the goal. Once a child can quickly blend words with taught patterns, decodables may not be necessary. (p116)

HOW ARE DECODABLES USED?

If texts using the LTTM design are used, it would make most sense to use the decodables right after a phonics lesson to practise the new learning. Mesmer (2019) suggests:

> I do not recommend using highly decodable texts exclusively for two reasons. First, the sounding out that children have to do in a decodable is substantial and can be tiring. Second, there are other types of books that children benefit from - in particular, texts that integrate decodability with engagingness, natural language, and a paced repetition of words, often called multiple-criterion texts. (Note: The feature that is overwhelmingly missing from today's beginning reading texts is programmatic repetition of words [Foorman et al. 2004; Hiebert 2005].) (p117)
>
> Pay attention to the level of decodability. In reality, texts do not exactly fit into neat categories of "decodable" vs. "not-decodable." Instead, decodability exists on a continuum, with some texts being more decodable and others being somewhat decodable. In the more decodable books, there is a really tight level of control with many words having specific letter/sound patterns. (blog.heinemann.com/topic/heidi-anne-mesmer)

WITH WHOM ARE DECODABLES USED?

This is another area that has very little research support. The studies that have been done have focused on a variety of subjects – a number have been at-risk readers and a few have been with mixed classes.

Should all beginning readers be given decodable readers? Again, there is virtually no evidence to suggest this, only theory. Much of the evidence says that decodables work for some groups some of the time. There is more evidence to show that the use of decodables may be less effective with more-able children.

SHOULD DECODABLES BE USED?

Given the paucity of research on the use of decodables and the wide variations in both research design and research questions as well as the overall conflicting results, it is difficult to answer this question with anything approaching certainty. The support for their use is therefore more theoretical than empirical. Section 2 of this paper does provide more detailed guidance and will be very helpful for anyone wondering how to proceed.

DECODABLE BOOKS:

RESEARCH REPORTS AND ARTICLE SUMMARIES

JUEL, C., & ROPER-SCHNEIDER, D. (1985)

The influence of basal readers on first grade reading. *Reading Research Quarterly,* 20(2), 134-152.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: 93 first grade students above the 40th percentile
DURATION: 8 months

This is by far the most cited study of the effects of using decodable texts with beginning readers. The authors examined the impact of a range of text factors by comparing the use of two basal series – one based on decodable text and the other on high-frequency words.

CONCLUSIONS:

- The type of text used exerted a significant influence on the students and the strategies used to read.
- By having a match between synthetic phonics and the decodability of words in beginning texts, there were more successful attempts to identify and use letter-sound correspondence.
- The types of words in beginning text influence a child's developing word identification strategies.

As with any study, there were limitations. Frey (2012) gives an insightful critique of this study, and I shall highlight a few points raised by him:

- The students in the study were selected to avoid low and high-performing students. They were from the middle reading group and scored above the 40th percentile on a reading readiness test. This then limited the ability to generalise the results of the data to students in the 1–39 percentiles.
- The decodable texts, while more phonically regular, were not aligned to the lessons – there was not a lesson to text match (LTTM).
- By the middle of the school year, the high-frequency text contained the same or more decodable words than the decodable texts.
- The data showed that both groups increased their ability to use decoding-based strategies. By the middle of the year, the high-frequency group was using more of those strategies than the decodable group. By the end of the year, the data showed that the high-frequency group was using primarily visual (whole word) strategies. Frey suggests that this may be an indication that the high-frequency group had actually developed more in their reading ability as they were automatically recognising the words by the end of the year.
- Finally and importantly, as the decodable books had more repetitions, one would expect the children to have developed the ability to read more words by sight. However, the data did not support that. Frey suggests that perhaps they had become so reliant on the decoding strategy that they could not shift to other ways to identify words.

FELTON, R. H. (1993)

Effects of instruction on the decoding skills of children with phonological-processing problems. *Journal of Learning Disabilities*, 26(9), 583-589.

ABSTRACT:

> This article reviews research carried out by the Bowman Gray Learning Disabilities Project concerning the role of instruction in the acquisition of word-identification (decoding) skills in children at risk for reading disabilities. A group of 81 kindergarten children were identified as at risk for reading disabilities based on teacher assessment and weak or deficient phonological processing skills. These children were classified as to type of phonological-processing problem (i.e., phonological awareness or retrieval of phonological information) and were randomly assigned to either a Code or Context instructional method for first and second grades. Children who received Code instruction scored higher than children receiving Context instruction on a variety of reading and spelling measures at the end of first and second grades. The elements of the Code instructional program considered critical to the success of a beginning reading instruction program for children with phonological processing problems are discussed. (p583)

The Code group used readers that were phonically regular (decodable), while the Context group used levelled readers.

> These results are interpreted as indicating that regardless of the nature or extent of phonological awareness or retrieval problems, the Code method of instruction resulted in significantly better performance for individual students. (p586)

Both groups performed better than the group that had no intervention.

> Until reading skills are well established, reading materials should be those with controlled vocabularies (i.e., that contain primarily words the child can decode). As the child develops a core sight vocabulary, books with more irregular words that can be read with high accuracy (90%) can be utilized. (p588)

ALLINGTON, R., & WOODSIDE-JIRON, H. (1998)

Decodable text in beginning reading: Are mandates and policy based on research? *ERS Spectrum*, 16(2), 462-468.

Richard Allington is a highly regarded scholar and researcher who has written extensively on the teaching of reading. In this paper, he and Haley Woodside-Jiron deliver a strongly worded opinion on a number of issues including "scientific" reading programmes and decodable text. Science, they explain, looks for what works best *most of the time* and, because of the variation in the needs of children, often falls short of the needs of many. Excellent teachers by no means ignore the evidence but are not constrained by it. Rather "they took their cues from the children they were teaching" (p462). They felt free to experiment with multiple approaches and were driven by the responses of their students.

With regard to the use of decodable text, the authors are unequivocal. They state that learning decoding skills is critical to learning to read as is having the opportunities to practise those skills on connected text. However, they go on to say that not only did the National Reading Panel Report not recommend decodable text, but that "there is no evidence that creating the artificial but highly decodable texts that have pigs doing jigs is necessary to foster effective decoding proficiency" (p465).

COLE, A. D. (1998)

Beginner-oriented texts in literature-based classrooms: The segue for a few struggling readers. *The Reading Teacher*, 51(6), 488-501.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: One at-risk first grade student
DURATION: 4 months

Ardith Cole describes her experience of teaching a young girl who was struggling at a very early stage in her reading. She allowed the child to choose texts she wanted and then observed her choices. The child chose texts that were old basals with the simplest of text (for an explanation of basal readers, visit en.wikipedia.org/wiki/Basal_reader). On the surface, they looked boring and hardly something that would entice or engage a reader. They were, however, accessible for this child, and in her eyes, they were what she *wanted* to read because she *could* read them.

The point Cole makes is that some children need and want highly controlled text until they can learn more about how text works.

Other aspects of beginner text discussed by Cole include:

- most children do well learning from literature-based instruction
- a few need something else – early on, they may be memorising predictable text but not attending to letters to start analysing words
- the impact of children not having the required language experience during the pre-school period
- the issue of readability – text spacing, size of print and layout
- the need to avoid the use of a complete thought or sentence over more than one page
- beginner text has fewer words per sentence and fewer words per page
- the need to have control over the number and variety of adjectives and adverbs and type of verbs (simple)
- less use of idiom or metaphoric language
- illustrations to extend and interpret
- intertextual support – commonalities between books.

Cole concludes:

> Having beginner-oriented texts in the classroom does not preclude providing instruction using aesthetically constructed texts. And just because one child needs the kind of support offered within a beginner-oriented structure does not mean that all children must follow such pathways, for many learn to read using more complex texts. (p500)

FOORMAN, B., FRANCIS, D., FLETCHER, J., SCHATSCHNEIDER, C., & MEHTA, P. (1998)

The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology*, 90(1), 37-55.

RESEARCH DESIGN: Experimental
SAMPLE SIZE: 285 at-risk first and second grade students
DURATION: 1 year

The purpose of this study was to examine the effects of three types of instruction with at-risk readers:

- Direct instruction in letter sound (code emphasis) with decodable readers.
- Less direct instruction (embedded code) with predictable books.
- Implicit instruction using predictable readers.

The results showed that the group tutored with the direct instruction approach scored significantly higher in word reading than with the other two approaches.

STEIN, M., JOHNSON, B., & GUTLOHN, L. (1999)

Analyzing beginning reading programs: The relationship between decoding instruction and text. *Remedial and Special Education*, 20 (5), 275-287.

This article is summarised by Bogan (2012) as follows:

> Stein, Johnson, and Gutlohn (1999) applied research-based evaluation criteria in a systematic analysis of recently published curriculum materials. The authors examined first grade basal reading programs adopted by California in December of 1996. The analysis was limited to the basal programs' basic components, supplementary phonics support texts, and stand-alone phonics support products. They noted that the type of text (decodable) selection students read could influence the development of phonologically based word identification strategies. The authors' review suggests that initial use of decodable text and prior literacy knowledge may help improve scores on reading tests. Their research did identify the frequency of use, as an important factor in the acquisition of beginning reading skills. The review suggests that further research be given to decodable text. The authors concluded that their analysis supports the use of decodable text as a major contributor to the acquisition of beginning reading skills; however, more research is needed to confirm this assertion. (p4)

HIEBERT, E. H. (1999)

Text matters in learning to read. *The Reading Teacher*, 52(6), 552-566.

This is a most useful article for teachers who are unsure about how to meet the needs of beginning readers with the variety of texts that are now available. The author suggests that beginning readers need texts that are qualitatively different from those for an advanced reader. They need texts that have a degree of phonic regularity and useful high-frequency words, that are meaningful and that have a density ratio (new words to total words) that is not overwhelming (such as 1:5). Specific texts can be sought out or teachers can use a varied selection of what they have so as to provide a "comprehensive array of information about written English to beginning readers" (p563). This might mean a short period of time using texts that are more phonically regular, another using books that have repeated rhymes, another that focuses on high-frequency words and another with greater literary quality. Whichever process is used, beginning readers need a multiple-criteria programme in order to develop the skills needed to advance as readers.

BROWN, K. (1999)

What kind of text—for whom and when? Textual scaffolding for beginning readers. *The Reading Teacher*, 53(4), 292-307.

In this article, the author discusses the nature and use of five kinds of texts: simple predictable, transitional, decodable, easy readers and authentic literature. She writes:

> Rather than asking "which is best," we can ask, "Which *type* of text is best suited to achieve *what* purposes with *whom*, and *when*?" Framing the question this way helps teachers address the wide range of student abilities that are not likely to be met by "one-size-fits-all" text. By matching different types of text with students' development, teachers are able to work in young readers' changing zones of proximal reading development — the bridge between what they know about the reading process and what they still need to learn. (p293)

To illustrate this, there follows a description of the teaching vignette of three students at different levels of reading ability and how the teachers respond to their needs with different texts. Thinking about the stage of development and learning needs of the student guides the use of text as a scaffold for learning to read.

The point is made that different types of texts do not need to compete with each other, and no one text is inherently better than another. *Well-written* decodable and transitional texts can be useful for some students because they:

- have simple sentences and the pictures continue to support the storyline
- allow students to apply their knowledge of sound-letter correspondences
- show students how their word study work can be applied to text
- help students to read text independently.

MESMER, H. A. (1999)

Scaffolding a crucial transition using texts with some decodability. *The Reading Teacher*, 53(2), 130-142.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: One at-risk first grade student
DURATION: 9 months

This is the first of a number of documents that Mesmer has written on decodable text. It describes the process as she attempted to find ways to teach a second grade student who was a struggling reader. The student appeared to be stuck at the pre-alphabetic to partial alphabetic phase. Although her phonemic awareness was not an issue, she was not able to apply knowledge of letter sounds to the text and relied on the initial sound of words and contextual cues.

Mesmer designed a different teaching approach that would match teaching of alphabet sounds with the text that was used and thus improve the content consistency of the lessons. The 30-minute lessons consisted of:

- reading familiar books – 10 minutes
- word study –10 minutes (this included new words that would be in that day's new book)
- writing – 5 minutes
- reading the new book – 5 minutes.

During the lesson, phonics was taught following a parts-to-whole structure that resembled synthetic phonics teaching. The texts selected were a modern decodable series that contained a balance between decodability and repeated patterns. The level of decodability varied from 60% to 80%. After 8 months of using this process, the student was able to move into full alphabetic reading.

Mesmer is quick to point out that the results were not purely due to a change to decodable readers but rather "they were an effect of instructional material, teaching and student needs intersecting" (p139). She also adds that:

- the use of text with some decodability is stage specific
- decodability is only one scaffold in beginning readers
- decodability is a matter of degrees so it is more useful to refer to the 'decodability' of a text
- decodable texts do not replace literature.

MESMER, H. A. (2000)

Decodable text: A review of what we know. *Literacy Research and Instruction*, 40(2), 121-141.

This is a much-cited paper as it is the first review of the existing research on decodable text.

The author discusses the various features of text that have been used to describe decodable text: phonically regular words, the degree of regularity within texts, word frequency, number of syllables and letters, lesson to text match (LTTM) and the degree and quality of LTTM.

The next part of the paper moves on to state the purposes of decodable text as supporting readers in word identification, supporting the learning of the items taught in the phonics lesson and helping the reader to attend to letters and sounds.

The paper then discusses the literature pertaining to how the level of text decodability affects readers and when decodable text is most useful. Mesmer is insistent that, if decodable text is used, there must be a lesson to text match with the phonics instruction.

She concludes with suggestions for future research into decodable texts in order to determine:

- the optimal level of decodability
- when decodable text is most useful
- how much decodable text a student needs
- which readers would most benefit from decodable texts.

VADASY, P., JENKINS, J., & POOL, K. (2000)

Effects of tutoring in phonological and early reading skills on students at risk for reading disabilities. *Journal of Learning Disabilities*, 33(6), 579-590.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: 23 at-risk first grade students
DURATION: 1 year

The intervention was for 23 students who were struggling to learn early reading skills. Non-teachers were employed and trained to deliver a one-to-one intervention for 30 minutes four times each week for a year. The lessons included instruction in phonological skills, letter-sound correspondence, explicit decoding, rhyme analysis, writing, spelling and reading phonically controlled (decodable) text.

Post-test results showed that the tutored students significantly outperformed the control group on measures of decoding and spelling. It was not possible to isolate the effects of using decodable text. The authors note that a follow-up a year later showed that some effects related to word recognition were not sustained.

HOFFMAN, J. V., SAILORS, M., & PATTERSON, E. U. (2002)

Decodable texts for beginning reading instruction. *Journal of Literacy Research*, 34(3), 269-298.

The authors present a case for the design of beginning readers to be based on three factors: decodability, predictability and engaging qualities. A text is deemed decodable if the phonic elements have been taught prior to the book being read. Predictability refers to scaffold supports such as rhyme, picture clues and repeated phrases of words. Engaging qualities are what makes text interesting, relevant and exciting.

> The danger here is that with an extreme focus on decodability we lose sight of other factors that must be considered in the development of text for beginning reading. Even within the area of decodability, the results suggest more careful work is needed. The instructional consistency conception of decodable text (i.e., words are deemed decodable based on the skills that have been previously taught) reflects a rational model of teaching and learning that makes sense at the surface level (Shulman, 1986). But as research on teaching has demonstrated over the past two decades, teaching and learning are not always, or even typically, rational. Indeed, teaching and learning are complex domains that reflect numerous influences and factors. The assumption that teachers will systematically follow a basal scope and sequence is contradicted by the research (Hoffman et al., 1998). This is not to suggest that articulation between the skills and texts is inappropriate in program design, but it does suggest that a conception of decodable text that rests on this assumption may be flawed. It may prove a better strategy to locate the instructional consistency perspective for text within the instructional design construct where the progression of decoding practice and instruction across levels is in focus. This would leave decodability as a within-word dimension to sit alongside predictability as two text accessibility factors. The conception of decodability as a word-level factor that operates in conjunction with predictability to produce accessible texts is supported in our data. Instructional design as a text factor, in this view, is more attentive to the progression of within-word features across levels of text. Decodability as a text factor is placed alongside predictability to describe accessibility at a given point in time. The two constructs are clearly related but differ in their points of emphasis. (pp292-293)

BROWN, K. (2003)

What do I say when they get stuck on a word? Aligning teachers' prompts with students' development. *The Reading Teacher,* 56(8), 720-733.

Although not specifically about decodable text, this paper adds to Brown (1999) by looking at what texts are most appropriate at a particular level of early reading development and the kinds of teacher prompts and responses that are most effective with the texts that are used. The author classifies the word recognition prompts as code-oriented, holistic or eclectic and gives examples of how, when and for whom each may be used.

JENKINS, J. R., VADASY, P., PEYTON, J. A., & SANDERS, E. A. (2003)

Decodable text – where to find it. *The Reading Teacher*, 57(2), 185-189.

The authors discuss what decodable text is, the history of its use and the theory behind why to use it. They offer a way to determine whether a particular text is appropriate for a student by using the following process:

1. Inspect the phonic elements featured in a specific storybook.
2. Compare the featured elements with the phonics knowledge of individual students.
3. For independent reading practice, select storybooks containing phonic elements that students have mastered.
4. For assisted reading practice, select storybooks containing phonic elements that children are currently learning.
5. Before students read a storybook, note the book's non-decodable words and teach any that students do not already know. (p187)

Decodable texts represent one of several types of early reading texts, all of which are useful in promoting reading acquisition (Hiebert, 1999). Whereas decodable texts emphasize phonetic control, other kinds of texts emphasize literature, language patterns, predictability, or high-frequency words. Like many other aspects of reading instruction, research has yet to settle questions of when, how much, and for whom different text approaches are beneficial. Decodable storybooks may be useful for beginning readers needing persuasion that phonics has utility, for those requiring additional practice applying phonic knowledge, and for those struggling to secure word-specific grapho-phonemic linkages in memory. (pp187-188)

COMPTON, D. L., APPLETON, A. C., & HOSP, M. K. (2004)

Exploring the relationship between text-levelling systems and reading accuracy and fluency in second-grade students who are average and poor readers. *Learning Disabilities Research and Practice*, 19(3), 176-184.

RESEARCH DESIGN: Descriptive study
SAMPLE SIZE: 248 low and average-achieving second grade students
DURATION: 15 weeks

The authors investigated the influence of decodability, readability, average number of words per sentence, percentage of high-frequency words and percentage of multisyllabic words. Fifteen texts were graded using these measures. Students then read one passage from each text each week for 1 minute. The students were scored on accuracy and fluency. The results showed a correlation between accuracy and fluency with the number of high-frequency words. In addition, greater fluency was associated with greater percentages of decodable words.

JENKINS, J. R., PEYTON, J. A., SANDERS, E. A., & VADASY, P. F. (2004)

Effects of reading decodable texts in supplemental first-grade tutoring. *Scientific Studies of Reading*, 8(1), 53-85.

RESEARCH DESIGN: Experimental
SAMPLE SIZE: 99 low-performing first grade students
DURATION: 25 weeks

This study is cited in most of the recent research on the influence and efficacy of decodable readers. The authors' focus was on the effect of the decodability of text during a period of supplemental tutoring with at-risk beginning readers by paraprofessional tutors. The study divided the students into three groups: more decodable (39), less decodable (40) and the control group (20). Whether or not a book was more or less decodable was based upon the phonics elements to be taught up to that point (LTTM) The tutoring lasted for 25 weeks, and students were tutored four times each week for 30 minutes.

The results are stated by the authors as follows:

> The strongest generalizations of our results might go something like this. Supplemental phonics instruction along with successful practice in text reading (regardless of decodability levels of the texts) may be sufficient for a majority of at-risk first graders to reach grade-level in two critical areas of reading—development of word-specific representations in memory and skill in decoding unfamiliar words. Decodable texts do not add value to supplemental tutoring programs, even for students who demonstrate more serious limitations in acquiring print–speech codes. However, accepting these generalizations overlooks an important fact; although effect sizes for the text variable were exceedingly small, our result is essentially a nondifference. (p81) [emphasis added]

The authors qualify the results by adding that there are other factors in text construction that must be taken into account when interpreting the results, such as the engaging quality of the text and the number of each of the following: tokens (total words), unique words (new to the text), singletons (words that occur only once), non-decodable words, repetitions, word frequency and sentence complexity. Added to this are influencing classroom factors such as the quality of classroom instruction and the availability of supplemental resources.

MATHES, P. G., DENTON, C. A., FLETCHER, J. M., ANTHONY, J. L., FRANCIS, D. J., & SCHATSCHNEIDER, C. (2005)

The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly*, 40(2), 148-182.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: 298 – two cohorts over 2 years of at-risk first grade students
DURATION: 2 years

This study was multidimensional in its investigation. Firstly, it looked at the effects of combining enhanced classroom instruction with supplemental small group tutoring. Secondly, it compared the effects of two forms of supplemental tutoring that were based on different theoretical orientations. One was aligned with the model of direct teaching and used decodable readers, and the other was based on a cognitive-apprenticeship theory and used authentic text. Instruction took place from October to May, 5 days each week for 40 minutes per session.

At the end of 2 years, the data showed that both groups who received supplemental tutoring improved and that there was very little difference in the results between the two groups.

The authors conclude that:

> it is possible to provide effective early reading instruction to students at risk for reading difficulties using text that is not phonetically decodable and without following a detailed scope and sequence … We propose that these findings lend support to the argument that it is time to stop debating the "best" method for providing early reading intervention. Time is better devoted to determining how to overcome the great challenges that exist in getting effective interventions placed into schools. (pp179-180)

MESMER, H. A. (2005)

Text decodability and the first-grade reader. *Reading and Writing Quarterly*, 21(1), 61-86.

RESEARCH DESIGN: Experimental
SAMPLE SIZE: 23 grade 1 students
DURATION: 14 days – 20-minute daily lessons

This study is a replication of Mesmer (1999). The researcher taught the children in six small groups, with half being the control group. The lessons used decodable readers that were matched to the phonics teaching (LTTM).

At the end of the intervention, the results showed that:

- the treatment group were slightly more accurate and less likely to appeal to the examiner but were more likely to repeat words or phrases
- the treatment group did not display more autonomy in all reading behaviours and did not self-correct at higher rates
- the use of decodable readers ensured that the application of lessons learned in phonics instruction was more likely to be applied
- students need to have a firm understanding of the alphabetic principle to make the best use of decodables.

MENON, S., & HIEBERT, E. H. (2005)

A comparison of first graders' reading with little books or literature-based basal anthologies. *Reading Research Quarterly*, 40(1), 12-38.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: 75 mixed-ability first grade students
DURATION: 15 weeks

This paper is especially useful as it details the use of the TExT (Text Elements by Task) model to determine the difficulty presented by texts by examining linguistic content and cognitive load:

- Linguistic content includes the nature, number and repetitions of high-frequency words, the nature and repetitions of rhymes, the number of concrete words and decodability.
- Cognitive load includes word density ratios (number of unique words to total words in the text), number of single occurring words, number of word repetitions, text length and text level features that include the predictability of syntactic structures and story patterns, genre and the match between illustrations, text and word decodability.

The intervention compared the use of little readers (Ready Readers) with a literature-based basal anthology (Invitations to Literacy). The Ready Readers are constructed to balance phonics content and high-frequency words with picture-text match, predictability and language style. In other words, Ready Readers attended to multiple elements of text features in order to provide a balance of linguistic content with cognitive load. Invitations to Literacy is more focused on developing listening skills, vocabulary and literature appreciation.

The results showed that the students who were taught using the Ready Readers achieved higher results by the end of the intervention.

> … the findings of this study suggest that texts that have been crafted to incorporate multiple text- and word-level scaffolds can support the transition into independent word solving and passage reading, especially for children who are challenged. (p37)

CUNNINGHAM, A. (2006)

Accounting for children's orthographic learning while reading text: Do children self-teach? *Journal of Experimental Child Psychology*, 95(1), 56-77.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: 35 first grade mixed ability – special education students excluded
DURATION: 12 days

This investigation tested the ability of students to self-teach during the reading of typically connected text. It found that word recognition was influenced by more than solely phonic based strategies.

> Thus, it can be inferred that semantic information and syntactic structure within the stories exerted a reliable effect on the accuracy of target word reading and facilitated word recognition. (p65)

BEVERLY, B. L., GILES, R. M., & BUCK, K. L. (2009)

First-grade reading gains following enrichment: Phonics plus decodable texts compared to authentic literature read aloud. *Reading Improvement*, 46(4), 191-205.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: 32 first grade mixed-ability students
DURATION: 15 weeks

Phonics instruction with decodable texts reading practice was compared to alternate reading enrichments. Thirty-two first-graders participated. One group practised reading decodable texts after phonics instruction. Another group heard authentic literature read aloud, and the third group participated in phonics combined with authentic literature. Additionally, an untreated classroom was compared to a treated classroom for a school-based reading measure, DIBELS.

Significant gains on DIBELS were found for the treated classroom compared to an untreated classroom following the semester of the enrichment. All treatment groups showed measurable reading gains, but the effect of the treatment text varied by reading level. Below-average readers demonstrated greater comprehension increases than average readers given phonics plus decodable texts, but average readers had greater improvements following authentic literature read aloud.

Conclusion: Explicit phonics instruction and reading practice with decodable texts can be a prerequisite to successful comprehension for beginning readers. However, as readers advance, they are more likely to benefit from challenging and meaningful literature.

SOLITY, J., & VOUSDEN, J. (2009)

Real books vs reading schemes: A new perspective from instructional psychology. *Educational Psychology*, 29(4), 469-511.

The authors explore the nature of reading schemes by examining two reading schemes, Rhyme Word (phonic based) and Oxford Reading Tree (levelled readers). They are compared with adult literature across a range of text features.

> Thus, children will have opportunities to practise their skills as often within real books as within a reading scheme. The analysis also suggests that there is little difference, despite claims to the contrary, in the structure of reading schemes and real books, and many of the claimed advantages for reading schemes cannot be maintained in the light of the data presented. (p503)

ADAMS, M. (2008)

Decodable text: Why, when, and how? In E. H. Hiebert & M. Sailors (Eds.), *Finding the right texts: What works for beginning and struggling readers* (pp. 23-46). New York, NY: Guilford Press.

Adams gives a very useful historical reflection on the design and use of decodables. There follows a detailed rationale for using decodable readers, including a discussion of the much-cited study by Juel and Roper-Schneider (1985). Adams then describes the process she and colleagues went through when designing the Open Court readers that became one of two reading programmes adopted for use in classrooms in California. She emphasises the need for letter sounds to be taught before they are used in texts by students in kindergarten and grade one.

In contrast to a strict lesson to text match (LTTM), she advocated (unsuccessfully) for the texts to contain basic consonants from the start. In addition to contributing to a problem-solving approach to reading it would:

> … allow us to exercise word families more richly and flexibly, thus discouraging children from trying to rote memorise their way to literacy, while hastening decoding habit and, through that, the growth of the underlying orthographic representations. Besides which, we argued, nobody had ever seen a child whose inventive spelling extended only through the letter *Mm* on *Mm* day. (p39)

With regard to high-frequency irregular words (structure words) that are essential at the earliest stages (*to, the, was, you, they, are, is*), she recommends that they be taught before the child encounters them in text. The overarching consideration is that, after being taught the use of letter sounds in phonics lessons, the student should then be able to practise the use of that knowledge in text and thus read it successfully. Adams concludes with a caution that decodable texts are for a limited time and also that the difficulty of a text depends upon more than just decodability.

MESMER, H. A. (2010)

Textual scaffolds for developing fluency in beginning readers: Accuracy and reading rate in qualitatively levelled and decodable text. *Literacy Research and Instruction*, 49(1), 20-39.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: 74 mixed-ability grade 1 students
DURATION: 1 year

This article is summarised by Frey (2012) as follows:

> Mesmer (2010) includes a detailed review of the limited literature on the effects of different types of text on reading development in an attempt to address what she describes as the muddled evidentiary picture regarding the relative benefits of leveled and decodable texts in supporting accuracy and fluency. Mesmer worked with 74 1st grade students, having them read an appropriately leveled decodable text as well as an appropriately leveled qualitatively-leveled text at four different points during a school year. She analyzed student reading data for accuracy and fluency hoping to clarify the effect of different types of texts on student reading performance. Her results, however, were mixed and served to further confound the debate. Data from the first set of students showed they were significantly more accurate reading decodable texts vs. the qualitatively-leveled texts. Data from the second set of students, however, showed the opposite outcome. For the first set of students, practice had no significant effect on their reading accuracy scores whereas for the second set of students, practice had a significant effect on reading accuracy. Additionally, both sets of students read the decodable texts significantly less fluently than they read qualitatively-leveled texts — both during their initial readings and across all subsequent retesting over the course of the year. Mesmer also found a significant text by practice interaction, indicating that students reading the leveled texts were getting significantly more fluent with practice than were students who read the decodable texts. (p13)

ADAMS, M. (2011)

The relation between alphabetic basics, word recognition, and reading. In S. J. Samuels & A. E. Farstrup (Eds.), *What research has to say about reading instruction* (pp4-24). Newark, DE: International Reading Association.

> Many basic function words in English pose problems for young readers in two ways. First, these words are poorly distinguished orally ("I want a glass uh milk"). Second, many sport spelling–sound correspondences that are irregular, or at least sophisticated relative to entry-level phonics standards. Because these words arise so frequently (and take on new importance) in written text, it is wise to help students master their spellings and usages before decodable texts are introduced. (p19)

FREY, R. (2012)

Rethinking the role of decodable texts in early literacy instruction (Unpublished PhD thesis).

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: 47 mixed-ability first grade students
DURATION: 5 months

This study is especially interesting as it presents a number of questions about the use of decodable books that are used within an LTTM format. Frey investigated the use of decodable books with 47 first grade students who were being taught reading using decodable readers that were matched to the items taught in the phonics lessons. He met with the students twice each week over a period of 5 months. He listened to them read from the decodable reader that they had most recently had during instructional reading. He made a detailed record of their reading including substitutions, omissions, insertions and refusals. If a student could not read a word within 3 seconds, the student was told the word.

The results showed that the top tercile of students read the books with 100% accuracy and gained little from reading the texts. The middle tercile made moderate gains and clearly benefited from the texts in terms of reading accuracy, although their error patterns showed potential issues for automatic word processing. The bottom tercile was the most concerning as the error rate indicated the books were too difficult and they were not learning enough from the reading of the texts to increase their automaticity or fluency. The majority of the errors were on decodable words. This error rate was higher than on the less-decodable high-frequency words.

Frey concludes that decodable books are problematic for a number of reasons:

- They provided few opportunities for learning for more able readers.
- In an LTTM model, it is assumed that taught means learned. This is counter to what we know, especially of at-risk students.
- Repeated inclusion of low-frequency words.
- The use of unusual language patterns.
- Lessons not paced to the learning needs of the struggling reader.
- Too many sight words introduced too soon.

Frey suggests that texts for beginning readers need to be mindful of the necessity for a level of decodability but also the other aspects that are necessary.

CHEATHAM, J. P., & ALLOR, J. H. (2012)

The influence of decodability in early reading text on reading achievement: A review of the evidence. *Reading and Writing: An Interdisciplinary Journal*, 25(9), 2223-2246

This review synthesises the research on decodability as a characteristic of text. Seven studies are examined (Compton et al., 2004; Hiebert & Fisher, 2007; Jenkins et al., 2004; Juel & Roper-Schneider, 1985; Hoffman et al., 2001; Mesmer, 2005, 2010).

The authors came to the following conclusions:

- Decodability of text is a critical characteristic of early reading text. However, it is only one characteristic and the degree of decodability needed is as yet unclear.
- Decodable text may offer opportunities for accuracy and fluency.
- Other factors need to be considered when designing early readers such as high-frequency words, high-utility phonics, critical word factor (Hiebert & Fisher, 2007), high interest, meaningfulness and number of word repetitions.
- Little can be said regarding the long-term effects of reading decodable readers in early years.
- There is some evidence to suggest that decodable readers are best used during the partial and full alphabetic phases in reading.
- Decodability should be considered a characteristic of text, not a type of text.

The authors conclude by saying that text with some degree of decodability may be useful for readers in the early stages of reading and that there is evidence that supports the need for texts to be based upon multiple criteria.

BOGAN, B. L. (2012)

Decodable and predictable texts: Forgotten resources to teach the beginning reader. *Journal of Arts and Commerce*, 1(6), 1-8.

This paper is a review of the research into the efficacy of decodable and predictable text, specifically with students between the ages of 5 and 8. The author found only five research studies on decodable text, and he gives a short summary of each (Brown, 1999; Hiebert, 1999; Juel & Roper-Schneider, 1985; Mesmer, 1999; Stein et al., 1999).

He concluded that, in each of these studies, decodable text was found to be useful for the beginning reader. He writes that the three limitations to these studies are that:

- there are only three empirical studies
- the sample sizes are small
- none of the studies separated the text effectiveness from the instruction.

CHEATHAM, J. P., ALLOR, J. H., & ROBERTS, J. K. (2013)

How does independent practice of multiple-criteria text influence the reading performance and development of second graders? *Learning Disability Quarterly*, 37(1), 3-14.

RESEARCH DESIGN: Descriptive
SAMPLE SIZE: 62 second grade mixed ability
DURATION: 10 weeks

This study compared independent practice with multiple-criteria text that targeted high-frequency words, decodability and meaningfulness with authentic literature. The multiple-criteria text has inbuilt scaffolds to assist the developing reader while authentic literature has no deliberately constructed scaffolds.

The study found that there were no statistically significant differences between the groups but did find a moderate effect size of 0.67 for developing readers using the multiple-criteria text. There was an indication that scaffolds built into the text may provide assistance for developing readers but not advanced decoders.

The authors also advise that caution be used when interpreting the results because of sample size and treatment duration and that fluency and comprehension were not measured.

MURRAY, M. S., MUNGER, K. A., & HIEBERT, E. H. (2014)

An analysis of two reading intervention programs: How do the words, texts, and programs compare? *The Elementary School Journal*, 114(4), 479-500.

Hiebert has done considerable work to develop theory around the use of text as well as investigating the qualities of text and developing texts. In this study, she and her colleagues look at two types of text used in reading intervention programmes to help understand the usefulness of each. Both programmes are highly influenced by an underlying philosophy. One programme is a code-based series while the other is meaning based.

Three features of texts are looked at:

- Word level – number of words, unique words, singletons, concrete words, highly frequent words, multisyllabic words and phonetically regular words.
- Text level – how often words repeat and percentages of singletons per unique words.
- Programme level – lesson to text match (LTTM).

The benefits of the meaning-based texts are many high-frequency words to develop sight vocabulary, a large proportion of multisyllabic words to permit reading real words early on, high repetition of words to increase sight vocabulary and varied language patterns. The drawbacks are too many multisyllabic words at higher levels that may lead to guessing, a low percentage of phonetically regular words and LTTM to allow practising of phonics skills and a high percentage of singletons.

The benefits of the code-based texts are many high-frequency words, fewer multisyllabic words, high percentages of phonically regular words and a high LTTM. The drawbacks are a high percentage of singletons, a low percentage of word repetition and constrained language patterns.

The authors suggest that struggling readers may benefit from both texts being used as each will address the shortcomings of the other.

DENTON, A. C., FLETCHER, J., TAYLOR, P., BARTH, A., & VAUGHN, S. (2014)

An experimental evaluation of guided reading and explicit interventions for primary-grade students at-risk for reading difficulties, *Journal of Research on Educational Effectiveness*, 7(3), 268-293.

RESEARCH DESIGN: Experimental
SAMPLE SIZE: 218 at-risk first grade students
DURATION: 23-25 weeks

Guided reading (GR) was contrasted with explicit teaching (ET) in a supplementary support for at-risk readers in the first grade of school. Guided reading used levelled books, while the explicit teaching used fully decodable books. Both groups improved over typical class instruction. The ET group did better than the GR group on measures of comprehension, fluency and phonemic decoding.

HIEBERT, E. H. (2015)

Changing readers, changing texts: Beginning reading texts from 1960 to 2010. *The Journal of Education*, 195(3), 1-13.

The following quote concisely summarises the main thrust of what Hiebert is saying:

> Typically, a review of research ends with a call for more research, and this one is no exception, calling for research that can lead to the development of a model of text that integrates the word-level features in the three types of beginning reading texts of the past 50 years: high-frequency, phonetically regular, and meaningful or engaging. As this article has shown, each change in texts over the years has focused on one of these three types of words. When each text type was introduced as an innovative reform, it was viewed as a competitor for the existing or previous text types. In actuality, all three of these elements, combined with elements related to syntax, discourse/genre, and program, require consideration in a comprehensive model of text for beginning readers (Hiebert, 1999; Mesmer, Cunningham, & Hiebert, 2012). Indeed, evidence shows that all three features of words—meaningfulness, frequency, and grapho-phonemic-morphemic structures—influence the speed with which words are recognized and the number of repetitions required to learn a word, and that these variables interact with one another (Laxon et al., 2002; Martinet et al., 2004). (p10)

HIEBERT, E. H., & FISHER, C. W. (2016)

A comparison of the effects of two phonetically regular text types on young English learners' literacy. Reading Research Report 16.01. Santa Cruz, CA: TextProject.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: 81 grade one English language learners
DURATION: 12 weeks

This study looked at two different text types:

- Phonetically regular phoneme (PRP) decodable books with a lesson to text match (LTTM) structure. These books focus on practice with individual phonemes.
- Phonetically regular rhyme (PRR) decodable books. These books emphasised a regularity of rhyme patterns that offered repeated opportunities within each text.

The students were taught over a period of 20 hours then retested. When compared with the control group, the intervention groups outperformed the control group on fluency and word recognition measures. The PRR group scored higher than the PRP group on all measures except comprehension. The results indicate that books other than PRP may achieve similar or better results with beginning readers.

CHAPMAN, J., ARROW, A., BRAID, C., TUNMER, W., & GREANEY, K. (2018)

The Early Literacy Project: Final milestone report. Palmerston North, New Zealand: Massey University.

RESEARCH DESIGN: Quasi-experimental
SAMPLE SIZE: Cohort 1 = 359, Cohort 2 = 342 – both cohorts were mixed-ability year 1 students
DURATION: Cohort 1 = 30 months, Cohort 2 = 18 months

The project was conducted between February 2015 and July 2017. Initially, there was one cohort of 359 new entrant students and 62 teachers from 39 schools. There was an intervention group and a comparison group. A second cohort was added in 2016 with 342 students. This had three groups: comparison, intervention and an added group called intervention* that had been part of the comparison group of Cohort 1.

This was to be a randomised control trial (RCT) research project, but because of issues with the number of schools that volunteered to participate, it ended up being a quasi-random volunteer sampling design.

The purpose of the research was to investigate the effect of teacher professional learning development (PLD) in code-based knowledge and teaching strategies on the literacy development of the students. Specifically, the researchers were looking for evidence of improvement in literacy learning outcomes and motivation in reading, a reduction in the literacy achievement gap and increased teacher confidence in teaching word level skills.

The results from Cohort 1 yielded very little difference between the intervention and comparison group. For Cohort 2, the project made adjustments to the PLD process, how teachers were supported and the student texts. For Cohort 1, they use levelled texts, but for Cohort 2, the texts that were used were decodable texts and were used with students as required after the phonic knowledge needed to decode the words had been taught in class.

The results from Cohort 2 were compared by school decile band (a school rating for funding purposes based on socio-economic status of the community) and demonstrated that:

- the intervention group achieved statistically significant greater growth in a number of areas related to phonological awareness, single word reading (Burt test), spelling and book level (at the middle of year 2 only)
- the teachers achieved important gains in knowledge and skill in teaching reading
- the self-efficacy of the students showed no difference between the groups.

While there was significant improvement for low-decile students on the Burt test, book level and spelling, the difference between the intervention scores and comparison scores on these measures decreased as decile bands increased and the high-decile school scores were very similar to the intervention scores in all three areas.

The authors state that the results "are especially beneficial for students attending low decile schools" (p101). From an analysis of the data, this is an obvious conclusion. When writing about the texts used, they then state "Early reading teaching would be enhanced by the use of decodable texts that support a developmental scope and sequence. Such texts provide support for both teachers and learners." (p102). This statement makes no reference to decile band, and

the implication is that it refers to all children in all schools. Such a sweeping statement does not appear to be warranted on the basis of the data presented, as the difference between the intervention group and the comparison group became minimal in high-decile schools in key areas of book level, word reading and spelling.

The authors made the following recommendations from the results of the project:

1. A national strategy should be developed to upskill New Entrant/Year 1 teachers in the importance, knowledge, and use of foundational language skills involved in successful literacy learning.
2. The instruction guidebook "Effective Literacy Practice in Years 1 to 4" should be phased out and replaced by a much more contemporary text for teachers, based on the abundance of contemporary research frequently mentioned in this report.
3. A strategy should be developed for the implementation of a comprehensive PLD programme designed to provide teachers of New Entrant/Year 1 students with effective tools for teaching the five key areas required for effective literacy instruction.
4. A process for instituting change in initial teacher education literacy courses should be developed and implemented. (pp106-108)

If the recommendations above were implemented, it would signal a significant shift in the way reading is taught in the early years of school in New Zealand.

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.

The paper has been included as it has been heavily cited. The authors endorse the use of decodable readers in the early stages of reading to assist the student when practising the lessons taught in phonics in a structured and systematic way. The authors caution that decodable readers have much-reduced value for students once they have learned "a core set of phoneme-grapheme correspondences" (p16) and will receive as much or more opportunity to practise these skills using other types of texts.

They also note that books written specifically with decodability in mind are:

> … likely to be somewhat restricted in word choice and so may tend to be inferior to real books in (a) maintaining children's interest and motivation to read and (b) achieving the broader goals of building children's vocabularies and knowledge. (p16)

More research is needed to identify more specifically the point at which the limitations of decodable readers outweigh their usefulness.

PRICE-MOHR, R., & PRICE, C. (2020)

A comparison of children aged 4–5 years learning to read through instructional texts containing either a high or a low proportion of phonically-decodable words. *Early Childhood Education Journal*, 48(7), 39-47.

RESEARCH DESIGN: Experimental randomised control trial – split-cluster design
SAMPLE SIZE: 36 reception class – 4-5 years old, mixed ability
DURATION: 1 year

This study is unique in that it controlled for the effects of teacher instruction and thus isolated the effects of the texts used. The researchers tested the effect of using high or low phonically decodable text with 36 children during their first year at school over a period of three school terms. Three schools were involved.

The authors wrote two parallel sets of 12 books with more-decodable and less-decodable text for two separate interventions. The more-decodable set used by one group contained approximately 88% of words that were decodable, the remainder being high-frequency words. The less-decodable set used by the second group contained an average of approximately 64% non-decodable words. The less-decodable text was more supportive of teaching for meaning. Because the two sets of books were used within the same classroom and with the same teacher, it was possible to control for the confounding effects of teacher and teaching style.

The results showed that children reading the less-decodable text scored significantly higher in comprehension and close to significance in word identification and development of phonemic awareness. The authors conclude that decodable text is not only less useful the more skilful children become but also less beneficial in terms of comprehension even for beginning readers.

COMPTON LILLY, C. F., MITRA, A., GUAY, M., & SPENCE, L. K. (2020)

A confluence of complexity: Intersections among reading theory, neuroscience, and observations of young readers. *Reading Research Quarterly*, 55(1), 185-195.

This paper presents a multidisciplinary approach to exploring a number of aspects of present literacy teaching practice. The following quotes have been extracted as relevant to the use of decodable text:

We recognize that some teachers using structured literacy approaches will find ways to respond to the interests, experiences, and literacy abilities of individual students; however, we are concerned about the indiscriminate and unwarranted implementation of the following practices:

- Directive and/or scripted lessons that tell teachers what to say and do and the implementation of lesson sequences, often at a predetermined pace (Hanford, 2018)
- Privileging of phonemic awareness and phonics as primary decoding skills (Hanford, 2018, 2019; IDA, 2019; Paige, 2020; Pierson, n.d.; Spear-Swerling, 2019)
- Use of decodable texts that do not engage multiple dimensions of reading (Hanford, 2018; IDA, 2019; Paige, 2020; Spear-Swerling, 2019)

- Specialized forms of reading instruction designed for particular groups of students as core literacy instruction for all students and teacher educators (Hanford, 2018; Hurford et al., 2016; IDA, 2019; Pierson, n.d.)
- Mandating structured literacy programs despite the lack of clear empirical evidence to support these programs
- Privileging the interest of publishers and private education providers over students.

Furthermore, the exclusive use of decodable text, including only previously taught letter/sound patterns, denies students opportunities to negotiate multiple dimensions of reading. (p188)

Early evidence suggests that "experiential and linguistically acquired knowledge can be detected in brain activity elicited in reading natural sentences" (Anderson et al., 2019, p. 8969), in contrast to reading lists of words or pseudowords (Desai, Choi, Lai, & Henderson, 2016). In short, naturalistic reading activates the same sensorimotor systems as nonlinguistic experiences. (p191)

In sum, neuroscience has revealed that reading processes appear to involve bidirectional interactions within neural networks and information transfer across brain regions. Although phonological processing has an important role in early reading, reading at all levels is supported by semantic and embodied processes that contribute to comprehension. (p192)

Given the complexity of reading, it is impossible to justify a single approach, even for a group of students who share certain characteristics or challenges. (p193)

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