**Do Kids Need Decodable Texts to Learn How to Read?**

One of the key distinctions between systematic phonics programs and whole language programs is the use of decodable vs leveled texts. Most whole language or balanced literacy programs rely on leveled or predictive texts for emerging readers, whereas most systematic phonics or structured literacy programs rely on decodable texts for emerging readers. Decodable texts can be defined as "A text that is decodable by a student. A text is only decodable if a student knows the phoneme-grapheme correspondences associated with that text. In theory, scaffolding decodables with a phonics scope and sequence provides more controlled practice for students to master phonics skills." (Hansford, 2023). Leveled texts can be defined as "A text that is scaffolded by the difficulty of words included, typically based on the length and complexity" (Hansford, 2023). Predictable texts use repetitive sentence patterns and pictures, to help students use the pictures to guess unfamiliar words and learn new vocabulary. For example, a predictive story might have a story like, The duck jumps. The duck sleeps. The duck eats. The duck plays.

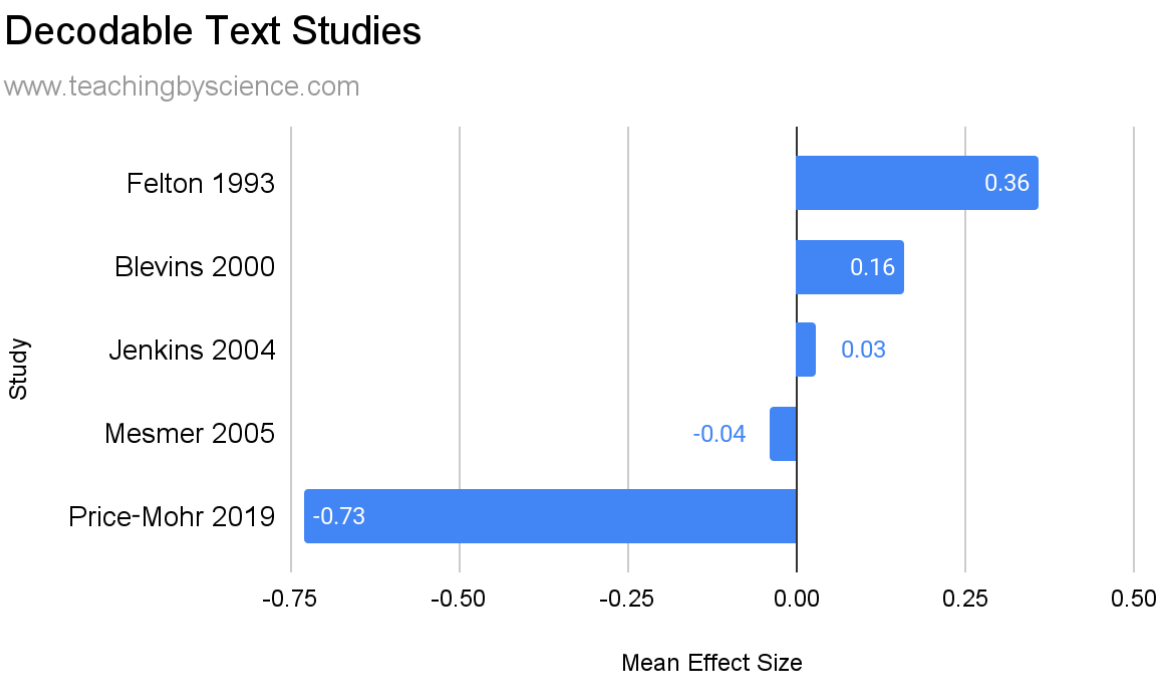
There tends to be a lot of focus on this area of the reading wars debate, despite there being less research on this topic. Truthfully, I think this is in part due to financial motives. Book sets can often be far more expensive than programs, so there is a lot at stake for big companies, on both sides of the Reading Wars debate. I must admit, I am a little biased on this issue, as I tend to assume that instructional practices have a far greater impact than the materials used. To quote Joyce Ball, "give me a stick and some dirt and I can teach a kid how to read".

I previously explored this question, in early 2022. I conducted a very simplistic meta-analysis, for which I did not bother to submit to peer-review. The analysis was based on a

search of the databases: “Sage Pub”, "Education Source", and Google. Studies were included in the analysis if they were experimental, listed decodable texts in their abstract, and included sufficient statistical information to calculate an effect size. I calculated effect sizes by subtracting the post test scores from the treatment group and the control group, and then dividing them by the pooled standard deviations (Cohen’s d). In total I found 5 studies, with a mean effect size of -.05, as can be seen in Figure 1. That said, of the studies identified one (Price-Mohr, 2019) was clearly a large negative outlier. If we remove the outlier study, we get a mean effect size of .05. Either way though, the resulting mean effect size is negligible suggesting no meaningful impact by switching from leveled texts to decodable texts.

In figure 1, I graph the effect sizes for each study I examined in my 2022 analysis.

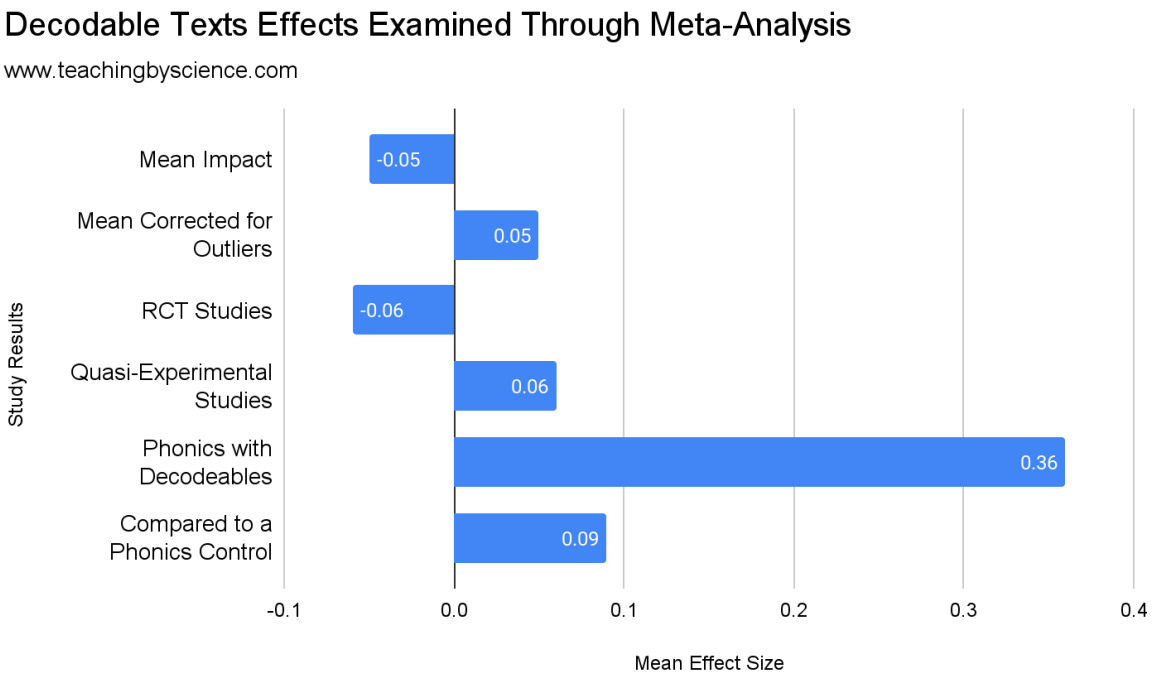
**Figure 1.** Decodable text studies.




Another problem with these studies is that most of these studies either did not control for instruction or compared phonics instruction with Whole Language instruction. This means the positive results that were found cannot be necessarily attributed to the books used, as the

instruction was not controlled for. In other words, the studies which did not control instruction have multiple experimental variables and are measuring a random effect. Therefore, these studies cannot be used to determine the effect of decodable texts in isolation. Two studies did properly control instruction (Blevins, 2000 & Jenkins, 2004). In these studies, instruction was the same (phonics focused) for both the control group and the treatment group. This means that the studies had only one experimental variable and the effects found can be attributed to the texts or be called a fixed effect. However, neither study showed a significant finding. In figure 2, I graphed my 2022 effect size findings for decodable texts.

**Figure 2:** *Results for Hansford, 2022.*




My original interpretation of these results was to suggest that text choice has little to no impact on instructional outcome and that instructional strategies were what mattered, not materials. That said this analysis had some severe limitations. I did not properly record my systematic search, which limits transparency. I only found 5 studies, only 2 of these studies

were rigorous, and only 1 of the rigorous studies was peer-reviewed. I did not have a second author replicate my effect sizes, which lowers validity, and I did not weigh my meta-analysis, which skews results towards the studies with the smallest sample sizes.

My analysis/article on this topic is amongst my two most controversial ones and I received a lot of anger for saying that text type might not matter. With the rise of the “Science of Reading " movement, there has been a great deal of attention focused on this issue and in my opinion, it has led some teachers to believe that decodable texts are the primary difference between structured literacy programs and “balanced literacy” programs. That said, I would disagree with this premise and instead argue that the main difference is the instruction, not the texts.

Since I posted this article, there are three things which have made me question my own interpretations. Firstly, I overlooked that the (NRP, 2000) meta-analysis authors indicated that most systematic phonics programs included decodable texts. While they also concluded that the evidence for decodables specifically was weak, it is difficult to separate the effects of the systematic phonics programs and decodable texts when most studies combine these two factors at the same time. Therefore, you cannot necessarily discount the premise that the reason systematic phonics programs show better results is at least in part related to the decodable texts. However, you also cannot assume that the texts were the primary driver of improved reading outcomes either.

Secondly, I must admit that the theoretical argument for decodable texts is strong. It makes intuitive sense that providing students with controlled practice for the letter sounds correlations they have been taught, with words and sentences would help the students to

better develop their decoding skills. Realistically, this is just an example of good explicit teaching, which has already been proven as evidence-based (Mason, 2021; Stockard, 2018 & Watkins, 1997). Indeed, my own program includes decodable texts, and I would really like to add more. Thirdly, there is just very little research on this topic, so I found myself very uncomfortable with drawing any strong conclusions. Moreover, I found myself uncomfortable with those who would shame others who do not agree on one side of the debate.

While there are few studies that specifically isolate and test the impact of decodable tests, another method for finding the fixed effect of decodable texts, would be to compare the difference in effect sizes, between studies that used vs did not use decodable text, like how (Camili, 2003) controlled for the difference between systematic and unsystematic phonics instruction. Since I published my article in 2022 on the topic, two new meta-analyses have come out, which provide a better opportunity to do such an analysis.

The first meta-analysis, although also not peer-reviewed, was published by the University of Newcastle, in late 2022. The paper was written by Rachel Birch, Heather Sharp, Drew Miller, Denyse Ritchie and Susan Ledger. The authors of this paper screened 1865 studies on decodable and leveled readers. However, only 19 studies were included, only 11 of these studies had sufficient data to calculate effect sizes, and only 5 of these studies looked at decodable texts. The authors found a mean effect size of .45 for leveled texts and .39 for decodable texts. However, the authors subtracted the difference between posttests and pretests, opposed to subtracting the difference between post test scores, between the treatment group and control group. This methodology inflates the effect size.

Of the studies analyzed by the authors they identified two studies not identified by myself (Beverly, 2009 & Denton, 2014) and excluded one study that I included (Blevins, 2000). The authors did not calculate a fixed effect size for decodable texts. However, we can estimate the fixed effect using the methods used by (Camilli, 2003), by subtracting the difference in effect sizes found for decodable vs leveled texts, in which case the resulting effect size is (-.06), as can be seen in table 1. The effect size results of (Birch, 2022) would therefore suggest that leveled texts outperform decodable texts by a statistically insignificant margin.

**Table 1.** *Birch 2023 Effect Size Results*

| **Outcome** | **Leveled Text** | **Decodable Text** | **Difference** |
|---|---|---|---|
| Fluency | 0.22 | 0.35 | 0.13 |
| Comprehension | 0.17 | 0.13 | -0.04 |
| PA | 0.87 | 0.59 | -0.28 |
| Word ID | 0.58 | 0.64 | 0.06 |
| Decoding | 0.71 | 0.24 | -0.47 |
| Spelling | 0.64 | 0.72 | 0.08 |
| Vocabulary | 0.33 | | -0.33 |
| Reading Rate | | 0.04 | 0.04 |
| Silent Reading | 0.2 | 0.42 | 0.22 |
| Mean | 0.45 | 0.39 | -0.06 |

Realistically these results are almost identical to my 2022 results, for which I found a mean effect size of -.05 and seem to bolster the evidence that text type is less important than

instruction used. That said, this study has similar limitations to my own analysis. It was not published in a peer-reviewed journal, and it was based on a very small number of studies (likely through no fault of the authors). However at least their systematic search was wider, the paper was published by a university, and there were multiple authors, which increases the statistical validity.

Contrary to my own conclusions from the paper, the original authors interpreted the results to suggest, “Individual students at various stages and ages should be offered a variety of texts, including reading books, for their reading development [....] Exclusive use of one type of book has a detrimental effect. Rather, carefully selected and varied reading materials leads to more positive outcomes and attitudes to reading” (Birch, 2022, page 5). In other words, the authors concluded that students should be exposed to a variety of texts.

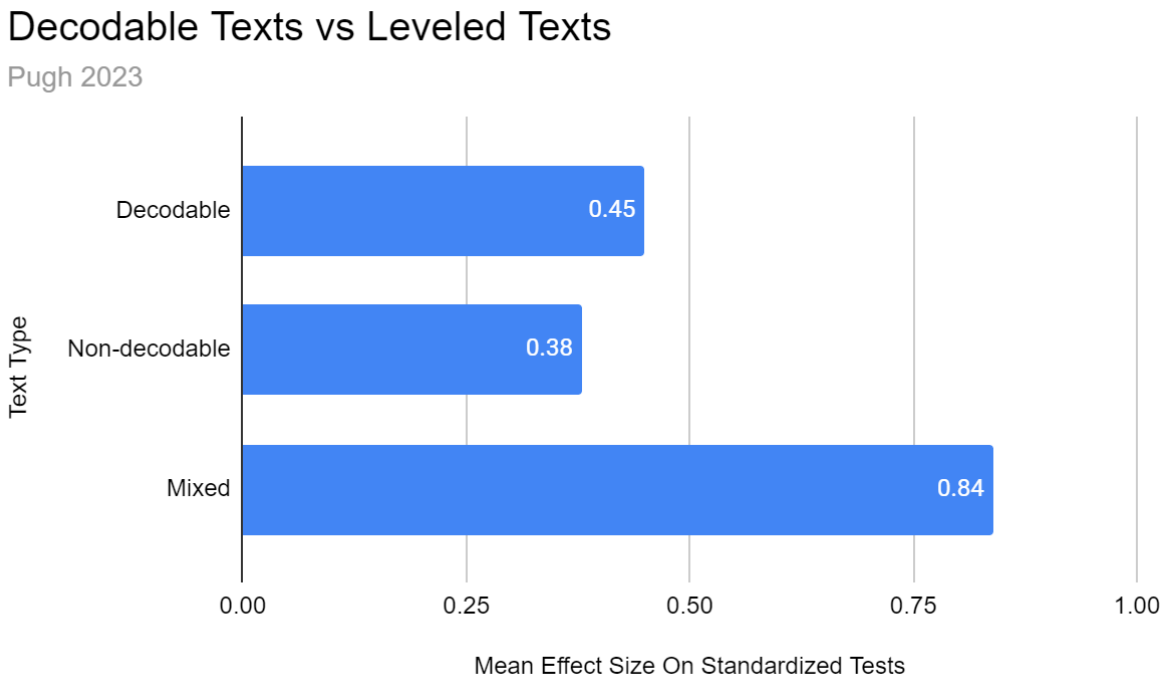
Timothy Shanahan (lead writer for the NRP report) wrote two reviews of this topic in 2019 and also also argued that early reading teachers use a variety of texts (Shanahan, 2019a). Moreover, (Shanahan, 2019a) also points out that decodable texts do not need to be purely decodable, but rather simply provide greater levels of controlled decoding practice. In other words, research does not suggest that decodable texts need to be 100% decodable. While (Shanahan, 2019a) does provide some caution against strong claims for decodable texts, he has also specifically advised against the use of predictive texts, which he argues encourage students to use guessing strategies and discourage students from looking at the text (Shanahan, 2019b).

In 2023, Alia Pugh, Devin M. Kearns, Elfrieda H. Hiebert conducted another meta-analysis on decodable texts. They used a much wider search parameter than myself or (Birch, 2022)

and examined 91 k-3 experimental and or quasi-experimental studies, and examined effect sizes for studies that used decodable, leveled, or mixed texts. The authors found “Effects for interventions with decodable or non-decodable reading did not differ from no-text interventions. For both types of interventions, the effect (g = 0.28” (Pugh, 2023). Moreover, they interpreted this effect to be consistent regardless as to whether the assessments used were standardized or not. In other words, the authors also concluded that early readers should be taught using a variety of text types.

Thirty-four of the studies analyzed looked at decodable texts. On average decodable studies showed a mean effect size of .41. Forty of the studies analyzed looked at non-decodable texts. On average non-decodable texts showed a mean effect size of .39. This would indicate a mean effect size difference of .02. Again, the meta-analysis results would seem to suggest no statistically significant difference. However, when researcher designed assessments were excluded, there was a slightly large difference of .07, but that difference is still statistically negligible. That said, they also looked at 8 studies, which used both decodable and leveled texts. On average these 8 studies showed a mean effect size of .84 on standardized tests. This means that using a variety of texts outperformed using decodable texts by an estimated effect size of .39 and non-decodable texts by an estimated effect size of .46! While 8 studies is underpowered, there does seem to be a compelling scientific case for using both decodable and leveled/authentic texts. However, the argument for using strictly decodable texts over leveled texts appears to be quite weak. Figure 3 found below, shows the effect sizes found for various uses of texts, on standardized tests by (Pugh, 2023).

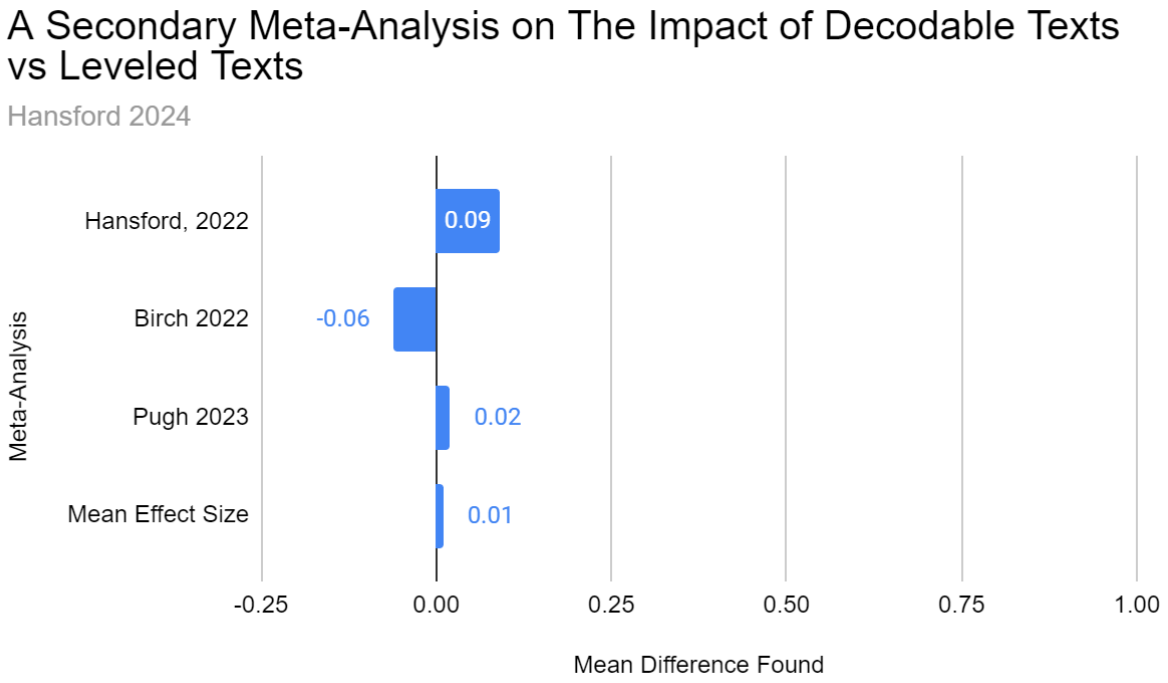
**Figure 3.** *Pugh, 2023 Effect Size Results.*




In my opinion the (Pugh, 2023) meta-analysis is the most comprehensive and advanced statistical analysis of this issue to date. However, one limitation to this paper is that they did not consider the impact of student age. I would love to see another meta-analysis that takes student age or reading ability into account.

To help contextualize all of these study results, I have conducted a secondary meta-analysis of the three meta-analyses to date on the topic; however, I have only included effect sizes that are specifically based on the difference between decodable and leveled texts. Figure 4 shows the estimated fixed effect found for decodable texts, in each referenced analysis.

**Figure 4.** *A Secondary Meta-Analysis On the Impact of Decodable Texts vs Leveled Texts*




Overall, figure 4, suggests that decodable texts make no meaningful difference in instructional results, when compared with leveled or authentic texts. However, I maintain that there is a strong theoretical use for decodable texts for early emerging readers. None of the above discussed meta-analyses disprove this hypothesis, as none of them control for student age. That said, while the hypothesis that decodables might be beneficial for specifically emerging readers (pre-kindergarten and kindergarten) there really is no strong scientific evidence to support this claim and thus such claims need to be caveated as hypothesis only. Moreover, while decodable texts might not be a game changer, predictive texts do present some risk. (Shanahan, 2019b) suggests that predictive texts can be damaging to student learning outcomes. Lastly, (Pugh, 2023) suggests that there may be strong benefits to giving students a variety of texts to practice reading.

**Points to Remember:**

-There is a strong theoretical argument to be made for the use of decodable texts for very early readers.

-There is no compelling scientific evidence that decodable readers are necessary for teaching reading.

-There is no compelling scientific evidence that complete decodability is necessary in decodable texts.

-There is no compelling scientific evidence that decodable texts are superior to non-decodable texts for reading instruction.

-There is moderate evidence that using both decodable and non-decodable texts for early reading instruction is better than using exclusively decodable or non-decodable texts.

**Implications for Practice**

1. Focus on the instruction. Phonics instruction should explicitly teach the correlation between letters and sounds, based on a scope and sequence.
2. Provide students opportunities to practice their learning decoding skills, both with decodable texts that align with your scope and sequence, and with authentic texts.
3. Provide students with rich texts during read alouds to develop vocabulary, and comprehension.
4. Don’t stress about the precise level of decodability of a text, there is no research to suggest that kids need 100% decodable texts to learn to read.
5. Avoid predictable texts, as they may encourage bad habits like guessing at words.

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