

A photograph of three children lying on their stomachs on a grassy lawn. Each child is holding a large book over their face, completely obscuring it. The child on the left is wearing a green and yellow striped shirt and dark blue shorts, holding a dark blue book. The child in the middle is wearing a blue and white striped shirt and khaki shorts, holding a teal book. The child on the right is wearing an orange shirt and khaki shorts, holding a light grey book.

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POLICY BRIEF

# Trust the Science? The Use of Outdated Reading Curricula in Wisconsin Schools

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## Executive Summary

Forward Exam scores show that Wisconsin students are struggling in reading. Currently statewide, only about 36.8% of students scored proficient or higher on the Forward Exam, meaning the majority of students are falling behind. Reading problems cut across all socioeconomic and racial lines. Much attention has been focused on the “Science of Reading,” and the persistence of reading curricula around the state that are not focused on these metrics. The Science of Reading is a ‘back to the basics’ approach that is focused on learning phonics, increasing vocabulary, and sounding out words rather than the context-clue based “guessing” techniques that have become popular in recent decades. Until now, it has not been possible to take a statewide look at what curricula districts are using for reading, and whether this choice has a relationship to student outcomes.

This paper takes advantage of a new dataset available from the Department of Public Instruction that details the curricula used in each district around the state. We correlate reading outcomes on the Forward Exam with some two of the most widely criticized curricula that rely on “Whole Language” techniques—Lucy Calkins and Fountas and Pinnell.

Key takeaways include:

**Whole Language techniques are still in wide use.** About 44% of schools around Wisconsin under the high school level are still using Lucy Calkins and/or Fountas and Pinnell.

**Use of Lucy Calkins is correlated with lower proficiency.** Controlling for a number of other factors that are known to affect reading scores, the use of Lucy Calkins is correlated with about a 2.1% decline in ELA proficiency. No relationship was found with Fountas and Pinnell, possibly due to lower usage rates.

**Combined, use of either curriculum is correlated with lower proficiency.** Controlling for a number of other factors known to affect reading scores, the use of Lucy Calkins or Fountas and Pinnell is correlated with 2.7% lower reading scores.

**Policymakers should consider adopting best practices from the Science of Reading.** States like Mississippi have seen significant jumps in reading proficiency by moving away from Whole Language methods to science-based methods. The evidence here suggests Wisconsin could benefit from doing the same.

**A list of district-level reading curricula is available on WILL’s School Scorecard.** Visit <https://will-law.org/school-scorecard/> to see what is in use in your community.



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## Introduction

The ability to read is not something that can be taken for granted. Yet for far too many kids around the state of Wisconsin, it appears that it has been. On any number of metrics from the Forward Exam to the National Assessment of Educational Progress (NAEP), the evidence is clear that Wisconsin students are struggling—particularly those from low-income and minority backgrounds.

On the most recent round of the Forward Exam, just 37% of Wisconsin students were found to be proficient in English/Language Arts. More than 59% of students fell below this threshold.<sup>i</sup> On the NAEP, Wisconsin has the largest racial achievement gap of any state when it comes to reading scores. It is clear we have a problem, and fortunately there have been efforts in recent years to improve reading education in Wisconsin. But what are the most effective ways to do this?

In recent years, attention has been brought to the methods which are used for reading instruction in Wisconsin and around the nation. So-called “Whole Language” approaches—in vogue for decades among educators—have faced a challenge from those who believe the best evidence supports a return to phonics-based reading instruction. Using newly available data from the Wisconsin Department of Public Instruction, we investigate whether there is evidence that schools using the Whole Language approach do worse (or better) than schools that do not use these approaches.

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## The Science of Reading

At least since the early 20<sup>th</sup> century, most reading instruction in United States schools was based on phonics.<sup>ii</sup> This approach involves breaking down the words into their respective sounds and forming together how letter combinations fit with each other to form coherent words. This brings an emphasis on children knowing how to sound out words, which consequently aids them greatly in learning how to read and write.

Over time, however, this style of teaching reading went out of style in favor of Whole Language approaches. Curricula like those designed by Lucy Calkins, who for a long time was seen as the authority on this matter, became dominant. The move away from traditional reading practices, to what were once billed as new and innovative approaches from individuals like Lucy Calkins, is not necessarily one of nefarious educators seeking to create a generation that can’t read. Rather, in general, it is a story of a field that has always glommed on to new, shiny methodologies even before they have been appropriately and fully tested.

The Calkins method does not make phonemic awareness a top priority, but instead pushes the importance of utilizing context clues and the pictures associated with the text.<sup>iii</sup> Under this

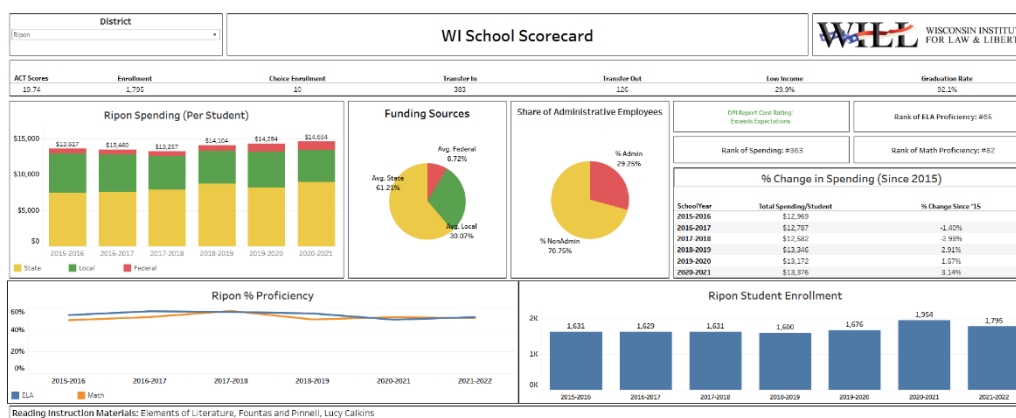
approach, the children are taught to essentially guess the words they do not know by using what would make sense.

In one randomized trial, researchers found that instruction in phonics led to greater gains in both reading fluency and spelling than those educated using a whole language approach.<sup>iv</sup> The evidence is so strong against whole language methods, that Calkins herself has somewhat backed away from this approach in more recent iterations of her work.<sup>v</sup>

While the problems with Lucy Calkins—and similar reading curricula like those produced by Fountas and Pinnell—have been known for a long time, little research has been able to quantify the extent to which they are still in use around Wisconsin. Fortunately, a new data source from Wisconsin’s Department of Public Instruction and the University of Wisconsin Center for Education Research<sup>vi</sup> makes it possible for such an analysis to be conducted for the first time.

## Methods

In this analysis we examine the correlation between reading proficiency in Wisconsin schools as measured on the Forward Exam, with whether the school uses Lucy Calkins and/or Fountas and Pinnell curriculum in their school. DPI’s data on English curricula was gathered during the 2020-21 school year. Therefore, we lag this variable one year and compare to outcomes on the 2021-22 Forward Exam coded from the state report card<sup>vii</sup> to ensure that there is time for the curricula to have been taught to students. Some schools did not have data included in the curricula resource, and therefore are excluded from the analysis. WILL’s School Scorecard,<sup>viii</sup> a screenshot of which is included below, provides a one-stop resource for the reading curricula of school districts around the state, as well as other important facts about Wisconsin’s schools.



Because the focus on reading proficiency is primarily in the early grades, we only consider schools here that are described by DPI as “Elementary Schools” or “Elementary/Secondary Schools.” These two types of schools are controlled for with an indicator variable in the analysis. Other key variables known to have a relationship with reading outcomes are also included in the analysis. These include the percentage of African American, Hispanic, Disabled, English

Language Learner and Low-Income students in the school. Also included is a variable for the total enrollment in the school.

## Results

Table 1 below shows the number of schools in the state that report using the Lucy Calkins and Fountas and Pinnell curricula. It's important to note that there is some overlap between the two—approximately 35% of schools that use Calkins also report using Fountas and Pinnell. 40% of Wisconsin elementary schools are using one of these two curricula.

**Table 1. Summary Statistics**

Curriculum	Number	Percentage
Lucy Calkins	352	35.56%
Fountas and Pinnell	209	21.11%
Either	433	43.78%

### Results: Model

We present the results in two ways. Model 1 separates Fountas and Pinnell from Calkins, while Model 2 looks at whether the school uses either curriculum—the “Either” variable.

**Table 2. Correlation of Reading Curricula on ELA Proficiency**

VARIABLES	(1) Proficiency ELA	(2) Proficiency ELA
Lucy Calkins	-0.0211*** (0.00672)	
Fountas and Pinnell	-0.00553 (0.00770)	
Either		-0.0271*** (0.00630)
African American	-0.173*** (0.0190)	-0.176*** (0.0190)
Disability Status	-0.424*** (0.0580)	-0.423*** (0.0578)

Low Income	-0.415*** (0.0195)	-0.417*** (0.0195)
ELL	-0.179*** (0.0332)	-0.181*** (0.0330)
Enrollment	1.62e-05 (1.89e-05)	1.78e-05 (1.88e-05)
Type	-0.0400** (0.0167)	-0.0412** (0.0167)
Elementary/Secondary	0.687*** (0.0194)	0.692*** (0.0194)
Observations	933	933
R-squared	0.712	0.714

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

First, we see in the model that other variables have the expected relationship to reading proficiency. A school with 100% African American students would be expected to have reading proficiency rates about 19.5% lower than a school with no African American students—highlighting once again the dramatic achievement gap in Wisconsin.

On our variables of interest, we see a strong, negative relationship between Lucy Calkins and proficiency in column 1. Schools that utilize Lucy Calkins would be expected to have proficiency rates of 2.1% lower on average than schools that use other methods.

No effect is found for Fountas and Pinnell in column 1. This is perhaps curious, but less so in light of the data in Table 1 that shows a smaller percentage of schools use this curriculum—making it a bit harder to identify significant results.

When we combine the two curricula in column 2, we see that the negative relationship is strengthened. Schools that use either curriculum have proficiency rates about 2.7% lower on average than schools that use something else. Given the inclusion of control variables in this analysis, this is relatively strong correlative evidence that these curricula may be doing harm to reading for Wisconsin kids.

## Limitations & Conclusion

This report does not provide a comprehensive answer to the question of what *does* work in Wisconsin schools. Many curricula better aligned with the science of reading are used in far too few schools for us to include them in the statistical model above and see significant results. Far more work is needed in this area using student-level data, rather than the school-level data that

we make use of here. The same goes for other non-science aligned curricula that has far less usage.

That said, the reality that 40% of Wisconsin elementary schools are still using curricula that the evidence shows is ineffectual, should be a cause of concern for parents, policymakers, and educators. A comprehensive reading policy that mandates schools make use of science-aligned curricula, coupled with a strong retention policy that requires students falling below certain thresholds on the Forward Exam be held back, is needed in this state. Anything less is a disservice to a generation of Wisconsin students who are in desperate need of help in learning to read.

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<sup>i</sup> <https://wisedash.dpi.wi.gov/Dashboard/dashboard/19948>

<sup>ii</sup> <https://www.parkerphonics.com/post/a-brief-history-of-reading-instruction>

<sup>iii</sup> <https://readinghorizons.website/reading-strategies/teaching/phonics-instruction/reading-wars-phonics-vs-whole-language-reading-instruction>

<sup>iv</sup> <https://files.eric.ed.gov/fulltext/ED545621.pdf>

<sup>v</sup> [https://www.nytimes.com/2022/05/22/us/reading-teaching-curriculum-phonics.html?fbclid=IwAR2VzAn9sSCgbw\\_2cHujsLfvdCOnZggpZe04\\_FsebIn8UYRoJJRcF3lr6JM](https://www.nytimes.com/2022/05/22/us/reading-teaching-curriculum-phonics.html?fbclid=IwAR2VzAn9sSCgbw_2cHujsLfvdCOnZggpZe04_FsebIn8UYRoJJRcF3lr6JM)

<sup>vi</sup> <https://wimaterialsmatter.org/>

<sup>vii</sup> <https://dpi.wi.gov/accountability/report-cards>

<sup>viii</sup> <https://will-law.org/school-scorecard/>