

Secret Stories® Study: Kindergarten in West Virginia



Study Summary

The case study teacher implemented Secret Stories® in their kindergarten class in rural West Virginia in the fall of 2018. The NWEA MAP® test served as the fall pre-test and spring post-test with researchers using the subtests for Reading Foundations, Lexile® Levels, and letter-sound correspondences. Effect sizes were calculated using these district and national comparisons to determine the effect of the intervention (.48) and pre-post effect sizes were also calculated based on the other metrics (.74) for a **total average mean effect size of .61**.



The treatment group outperformed all comparison scores, with 21 of 22 students meeting or exceeding MAP® reading growth projections. Additionally, 14 of the 22 students met or exceeded grade level expectations on the i-Ready® reading subtests, as compared to only 4 students at the beginning of the year. By the end of the year, 42% of kindergartners in the case study class were reading at a grade 1 Lexile® level, and 29% were reading at a grade 2 Lexile® level. These results are even more impressive when considering that the same teacher's class the previous year (without Secret Stories®) had just 10% of students reading at a grade 1 level.

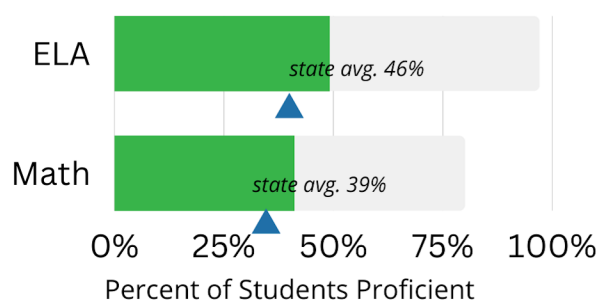
Product Description

Secret Stories® is a multisensory, neuroscience based approach to fast-tracking phonics skills for reading that can be used alongside any reading or phonics curriculum. Rooted in the science of reading and aligned with early brain development, Secret Stories® uses familiar schemas to help children make sense of the sounds letters make together, along with embedded mnemonic images to help them remember for independent reading and writing.

School Setting

The case study school performed just above the state average. Nearly all (95%) students in this school are Caucasian. The school has 29% of students classified as low-income. It is a large school with nearly 1,300 students, with an average of 20 students for every teacher.

Figure 2: District Summary Ratings

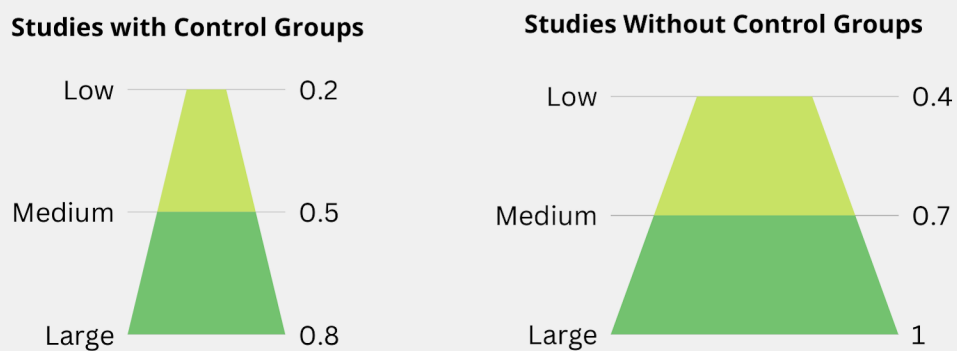


Source: nces.ed.gov

Methodology

MAP® is the primary test used in this study to measure and compare the reading growth of Secret Stories® students. MAP® assesses students on reading skills, which include letter identification, decoding, and phonemic awareness. Lexiles Reading Foundation®, a benchmark-style test, was also used to determine the students' reading levels. Lastly, the instructor used their decoding assessment for 31 specific phonemes. All effect sizes were calculated using Hedge's G. However, only the MAP® effects were calculated against a comparison score. This means that the evaluation using MAP® scores is more rigorous than the results with non-MAP® scores. All effect sizes were independently calculated by a second writer, to ensure the integrity and then reviewed by a third party, independent research firm.

Generally speaking, effect sizes for studies within reading education research can be interpreted based on the following benchmarks:



Key Findings

Students' end-of-year scores on the i-Ready® assessment showed above-average growth. 14 of the 22 students exceeded grade level expectations on reading subtests compared to only 4 students at the beginning of the year. These 14 students also met stretch goals on the i-Ready®, meaning they exceeded their typical predicted growth (159% growth). These results indicate that Secret Stories® helped to accelerate reading achievement in this class greater than typical growth.

Figure 3: Comparison of Effect Size Results on MAP® Testing

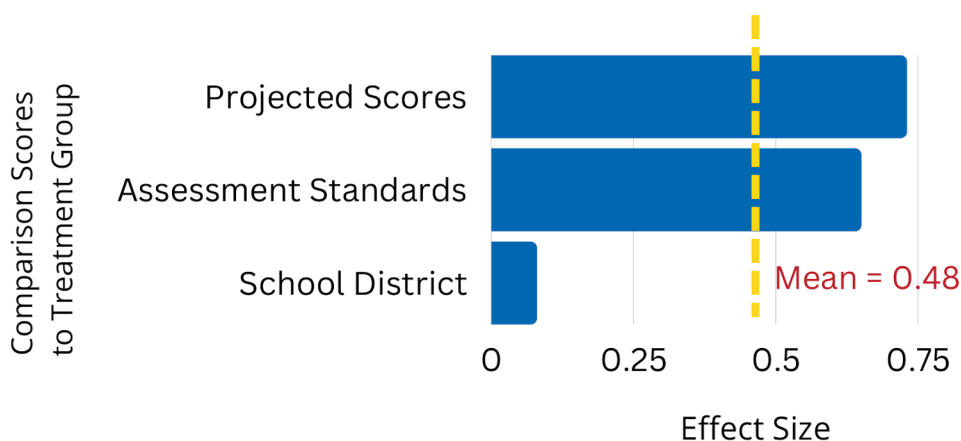


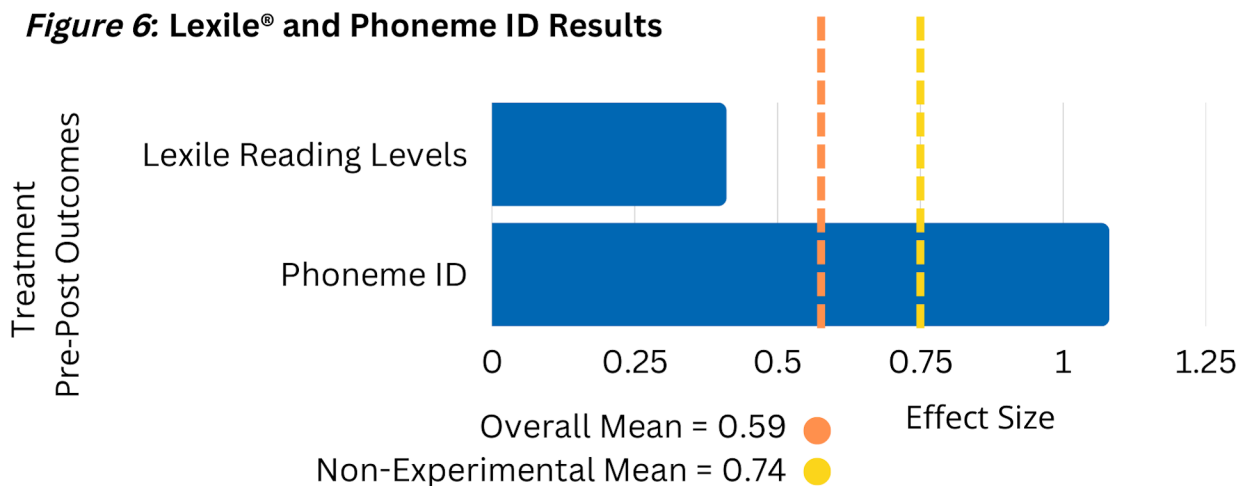
Table 1: MAP® Test Results (Between-Design)

	N	Mean	SD	Effect Size
Treatment	22	164.76	8.83	
MAP® Projected	21	135.47	56.91	.73
MAP® Standards		159		.65
District		164		.08
"Between Design" Mean				.48

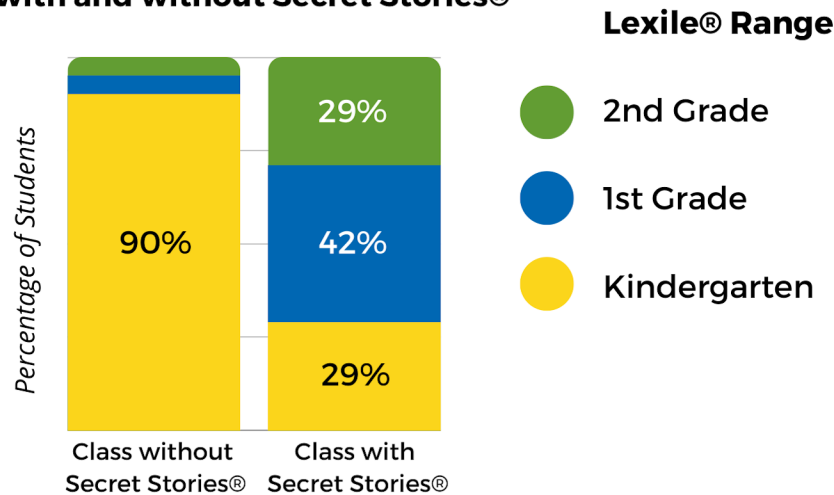
Table 2: Non-Comparative Results (Within Design)

Assessment	N	Pre Test M	Pre Test SD	Post Test M	Post Test SD	Effect Size
Lexile®	22	79.61	19.54	86.71	19.63	.41
Phoneme ID	22	18.80	11.23	31	0	1.08
"Within Design" Mean						.74

Figure 6: Lexile® and Phoneme ID Results



Kindergarten Lexile® Levels with and without Secret Stories®



Conclusion

Across this study we see moderate to high results, with the treatment group outperforming all comparison scores and nearly all students (21/22) meeting or exceeding MAP® reading growth projections. Additionally, these students achieved much higher Lexile® levels than the same teacher's class from the previous year who were not using Secret Stories®. For example, 42% of kindergartners in this year's class were reading at a grade 1 level and 29% were reading at grade 2 level by the end of the year. The same teacher's class the previous year, who did not use Secret Stories®, had only 10% of students reading at a grade 1 level. This teacher credits Secret Stories® as the main difference between the two cohorts.

Research Limitations

This study report was written and analyzed via secondary data analysis, as the authors did not design the study. Fidelity of implementation of Secret Stories® could not be verified with this study.

Ethics Agreement

This case study was written by an independent firm on behalf of Secret Stories®, under a contractual agreement that all results would be published, regardless of outcomes and that no data would be withheld from said firm. All data and methods were independently checked by a third party education research firm not associated with Secret Stories®, or the writers of this report.



**Independent
Verification**



Learning Experience Design (LXD)
Research & Consulting

a division of Charles River Media Group, LLC

This case study was written by an independent analyst on behalf of Secret Stories who verified the results. All reports were also independently reviewed by [Learning Experience Design Research](#), a third-party education research firm.

