Secret Stories® Case Study:
Grade 1, Michigan

Study Summary

The case study teacher implemented Secret Stories® in their grade 1 parochial school class in an urban district of Michigan during the fall of 2018. 100% of students in the case study school received free and reduced lunch and 60% were English Language Learners (ELL). Students were assessed using the BAS® benchmark reading test in the fall and spring. BAS® levels were compared to other classes of the same grade who were using only Fountas and Pinnell® and not Secret Stories®. The effect size was calculated based on these comparisons to determine the mean impact of the Secret Stories® intervention. **A mean Hedge's g effect size of .51 was found when comparing the treatment group to the two control groups.**

Not only did the treatment class outperform both control classes, 90% of students were reading at or above grade level by end of year, as compared to just 41% of students in the control groups. In addition to having twice the number of students reading above grade level, the treatment class also had less than half the number of students reading below grade level. These results suggest a high level of efficacy for Secret Stories® use.

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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.

Figure 1: **Enrollment by Ethnicity**

Asian or Pacific Islander
6%

Two or More Races
92%
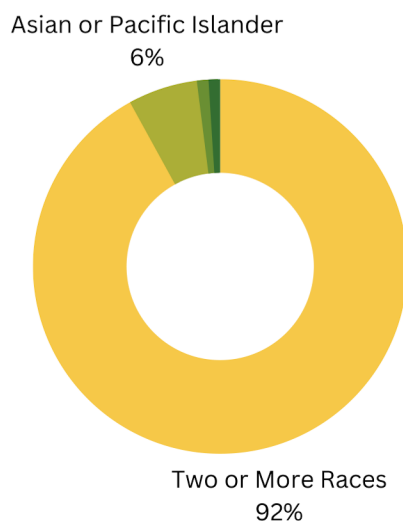
School Setting

This is a parochial school located in an urban area of Michigan. The majority of the school population was of diverse heritage. In the case study class, 60% of students were identified as English Language Learners (ELL) and 100% received free and reduced lunch.
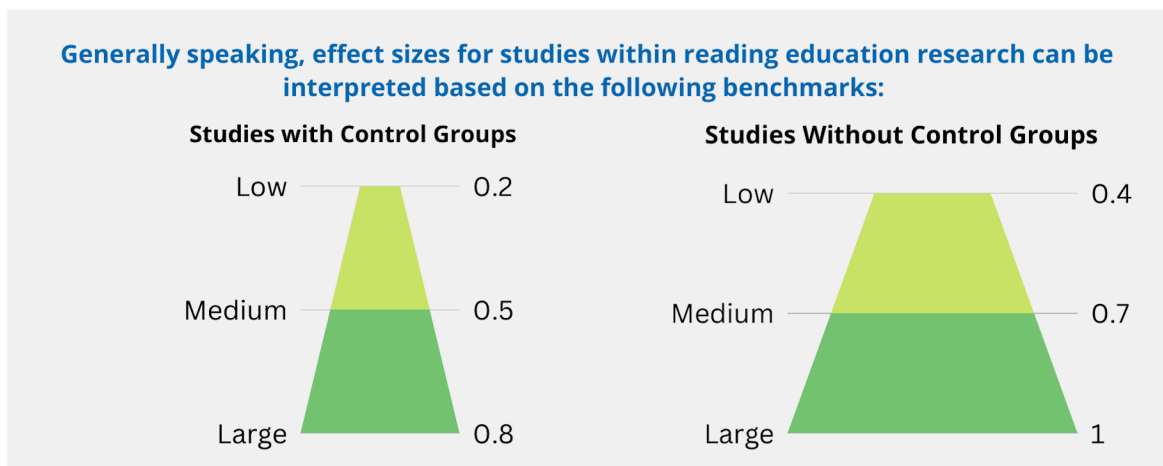
Figure 2: **District Summary Ratings**

ELA — state avg. 48%
Math — state avg. 35%

0% 25% 50% 75% 100%
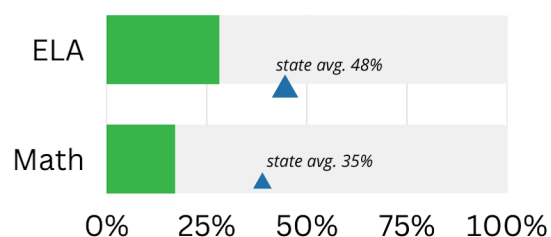
Source: nces.ed.gov

Methodology

This case study used the BAS® benchmark test created by Fountas and Pinnell® to assess reading levels. Even though not designed to be used in this way, averages and standard deviations of the Lexile levels were calculated to approximate the impact. Results are determined by measuring an effect size between the class that used Secret Stories® and classes that did not.

The effect size calculated used a Hedge's G calculation. All effect sizes were independently calculated by a second researcher, to ensure integrity and then reviewed by an independent third-party firm.

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

Studies with Control Groups		Studies Without Control Groups	
Low	0.2	Low	0.4
Medium	0.5	Medium	0.7
Large	0.8	Large	1

Key Findings

By the end of the year, 90% of students were reading at or above grade level or higher within the treatment group, whereas only 41% of students in control groups were reading at grade level or higher. The treatment group also measured at a statistically significant higher mean outcomes than the control classes, with a mean effect size of .51.

*Table 1:* **BAS® Reading Level Mean Scores Comparison**

Class	Mean	Standard Deviation	N	Effect Size
Treatment	11.59	2.75	21	
Control 1	9.54	2.1	23	.83
Control 2	10.95	3.54	23	.2

Table 2: **Number of Students Reading At, Above and Below Grade Level in Secret Stories® and Non-Secret Stories® Classrooms**

Class	Number of Students Below Grade Level	Number of Students On Grade Level	Number of Students Above Grade Level
Treatment	2	2	18
Control 1	6	8	10
Control 2	11	5	8

Figure 3: **Reading Level Comparison of Students At, Above and Below Grade level in Secret Stories® and Non-Secret Stories® Classrooms**
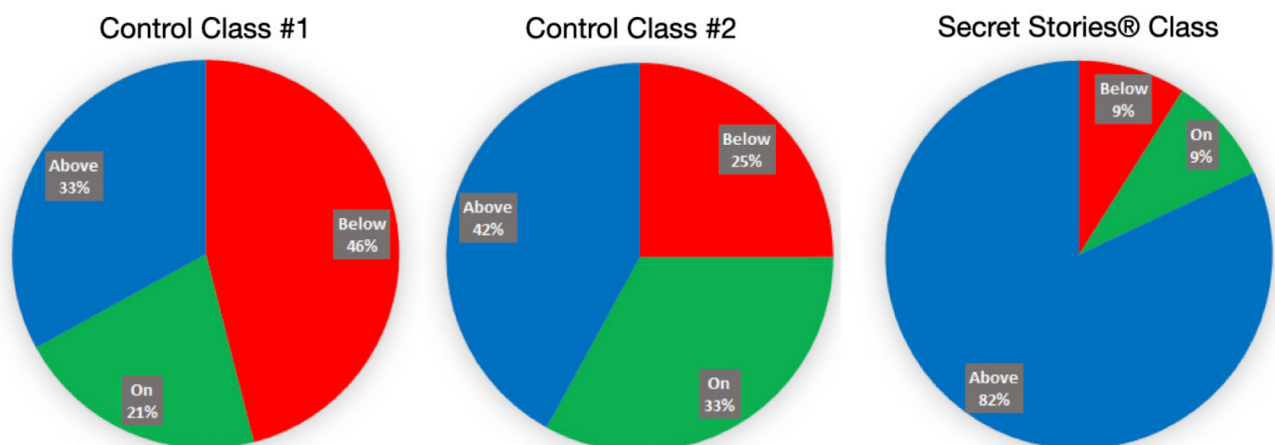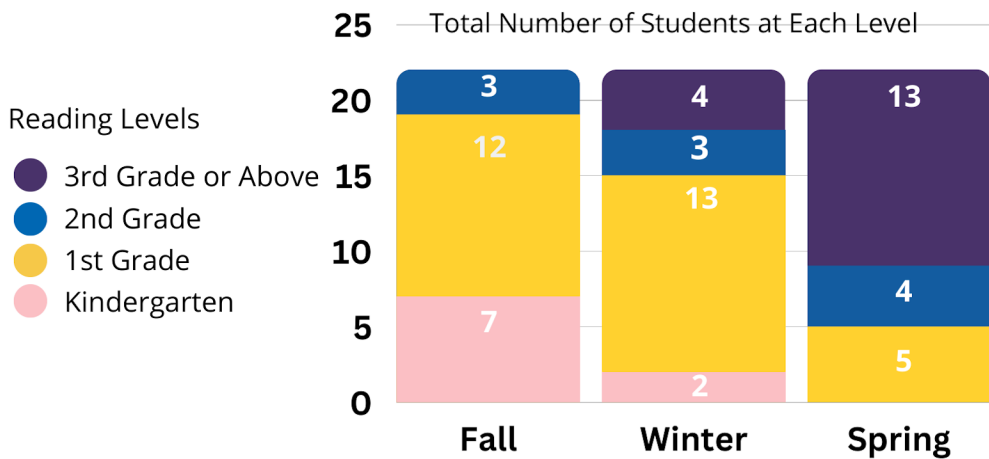

Conclusion

The treatment class outperformed both of the control classes with 90% of students reading at or above grade level, as compared to just 41% of students in the control groups. In addition to having twice the number of students reading above grade level, the treatment class had less than half the number of students reading below grade level, indicating a high level of efficacy for Secret Stories®.

Figure 4: **Reading Level Growth of Students in Secret Stories® Classroom**

Reading Levels
- 3rd Grade or Above
- 2nd Grade
- 1st Grade
- Kindergarten

Total Number of Students at Each Level

Fall: 3 (2nd Grade), 12 (1st Grade), 7 (Kindergarten)
Winter: 4 (3rd Grade or Above), 3 (2nd Grade), 13 (1st Grade), 2 (Kindergarten)
Spring: 13 (3rd Grade or Above), 4 (2nd Grade), 5 (1st Grade)

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.

VERIFIED

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.