Secret Stories® Study:
First Grade, Idaho

Study Summary

The case study teacher implemented Secret Stories® in their grade 1 class in suburban district of Idaho in the fall of 2021. The efficacy of Secret Stories® was monitored in this case study with a pre-test/post-test model using the I-Station® Indicators of Progress® reading assessment. **An average effect size of 0.90 was found**, suggesting a high magnitude of growth with Secret Stories® use.

©2023 Secret Stories®

The case study class was the lowest performing grade 1 class at the beginning of the year with just 55% of students meeting the grade level benchmark. r only 1 month of using Secret Stories®, 80% of students had met the grade-level benchmark. By March, they had outperformed all of the three grade 1 classes, including the highest performing class in which the majority of students had already met grade level benchmarks at the beginning of the year.
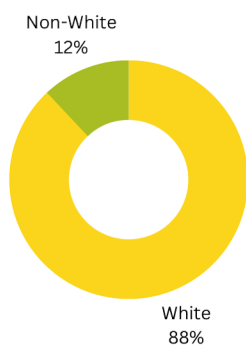
Product Description

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.
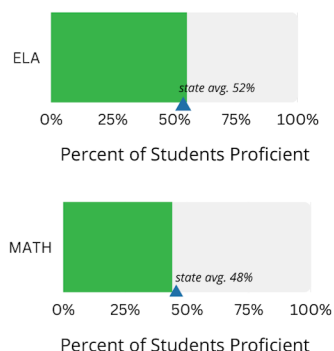
School Setting

The study school is a public school in a suburban district of Idaho. Idaho is a low-performing state with just over 50% of students meeting literacy standards. The town has a population that is 88% Caucasian, with a small Hispanic and Asian population. Within the treatment setting, two students were far below grade level, due to specific needs, and one student was a non-English speaker with behavioral issues and low attendance.

Figure 1: Enrollment by Ethnicity

Non-White 12%

White 88%

Source: nces.ed.gov

Figure 2: District Summary Ratings

ELA — state avg. 52%

0% 25% 50% 75% 100%

Percent of Students Proficient

MATH — state avg. 48%

0% 25% 50% 75% 100%

Percent of Students Proficient

Implementation Context

Due to illness, the teacher did not begin implementation of Secret Stories® until the second week of November. Of the 4 first grade classes, her beginning-of-year test scores were the lowest, with only 55% of students meeting the grade level reading benchmark on ISIP testing.
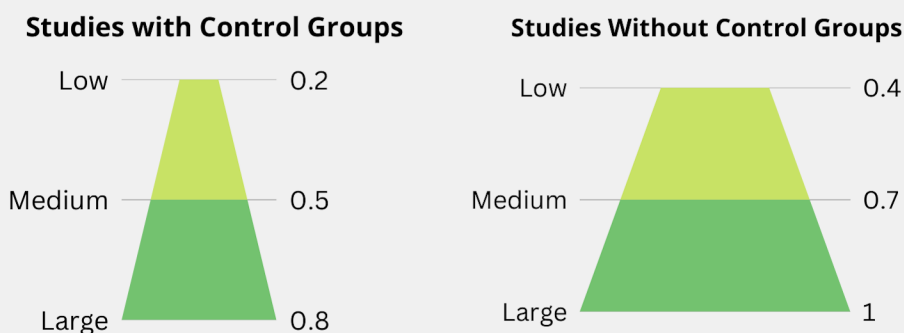
After only 1 month of Secret Stories® implementation, 80% of students were meeting grade-level benchmarks. After 4 months, all but 2 students (1non-English and 1 special education) had met the grade level reading benchmark, with students' comprehension scores rising from 42% to 75%.

When school ended in March, due to COVID-19, the case study class had outperformed all of the 3 other classes, including the highest performing class, in which the majority of students had already met grade level benchmarks at the beginning of the year.

Methodology

Efficacy was measured using pretest (October) to post-test (March) scores on the Istation® Indicators of Progress (ISIP®) foundational reading skill assessment. There were 20 students in the spring sample and 19 in the fall, due to one student being absent during the fall testing. All effect sizes were independently calculated by a second writer to ensure the integrity of the data.

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

Studies with Control Groups

Low	0.2
Medium	0.5
Large	0.8

Studies Without Control Groups

Low	0.4
Medium	0.7
Large	1

Key Findings

Table 1: Secret Stories® Results for Each Skill

Outcome	Pre Mean (SD) N=19	Post Mean (SD) N=20	Effect Size (Hedge's g)
Spelling	203.8 (13.13)	219.83 (9.63)	1.38
Decoding	206.55 (11.37)	232.44 (17.96)	0.78
Comprehension	198.8 (17.38)	214.66 (21.74)	0.8
Vocabulary	221.15 (17.23)	217.33 (15.83)	0.64

The results of this case study are robust and promising, especially considering that this study was conducted over just a four month period due to COVID-19. Though the final data may be skewed higher than they would have been if the students were compared to a control group, students showed significant gains in many literacy components. Effect sizes for comprehension and decoding were high (Hedge's g >.7) and moderate for vocabulary (g = .64). In addition, the effect size for spelling was very high (g >1.2), suggesting strong evidence of the program's effectiveness over a short amount of time.

Figure 3: Results Ranked by Effect Size
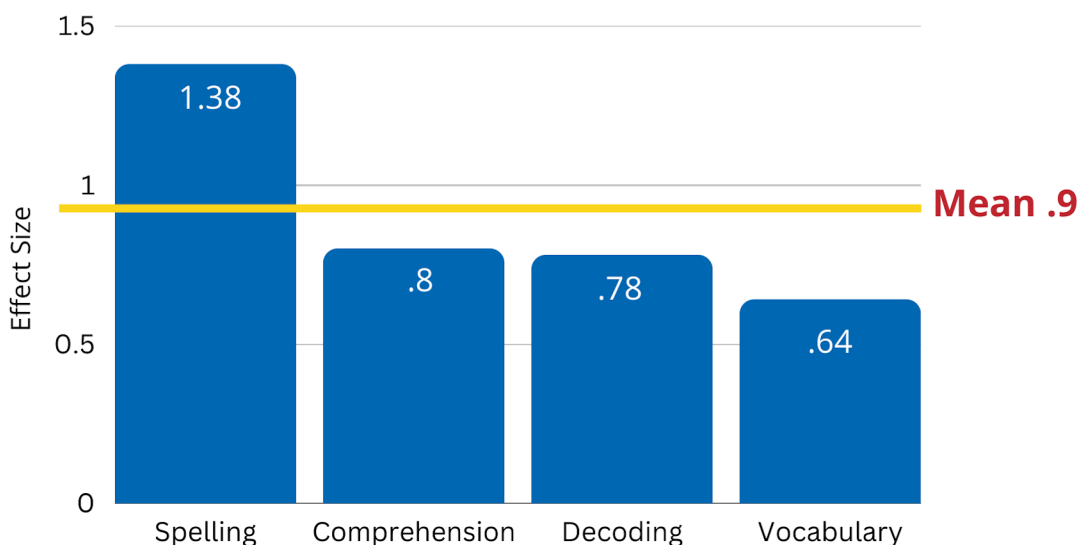
ISIP® Early Reading Results - English Language Arts

Figure 3. November
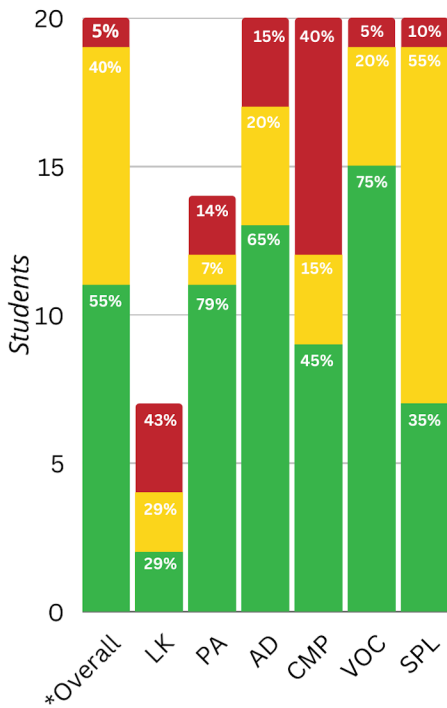*Baseline - 1 week Before Starting Secret Stories®*

Students (y-axis, 0–20)

Categories: *Overall, LK, PA, AD, CMP, VOC, SPL

- *Overall: Tier 1 55%, Tier 2 40%, Tier 3 5%
- LK: Tier 1 29%, Tier 2 29%, Tier 3 43%
- PA: Tier 1 79%, Tier 2 7%, Tier 3 14%
- AD: Tier 1 65%, Tier 2 20%, Tier 3 15%
- CMP: Tier 1 45%, Tier 2 15%, Tier 3 40%
- VOC: Tier 1 75%, Tier 2 20%, Tier 3 5%
- SPL: Tier 1 35%, Tier 2 55%, Tier 3 10%

Figure 4. December
1 month After Starting Secret Stories® use

Students (y-axis, 0–20)

Categories: *Overall, LK, PA, AD, CMP, VOC, SPL

- *Overall: Tier 1 80%, Tier 2 15%, Tier 3 5%
- LK: Tier 1 83%, Tier 2 17%
- PA: Tier 1 92%, Tier 3 8%
- AD: Tier 1 50%, Tier 2 50%
- CMP: Tier 1 50%, Tier 2 25%, Tier 3 25%
- VOC: Tier 1 90%, Tier 2 5%, Tier 3 5%
- SPL: Tier 1 70%, Tier 2 30%
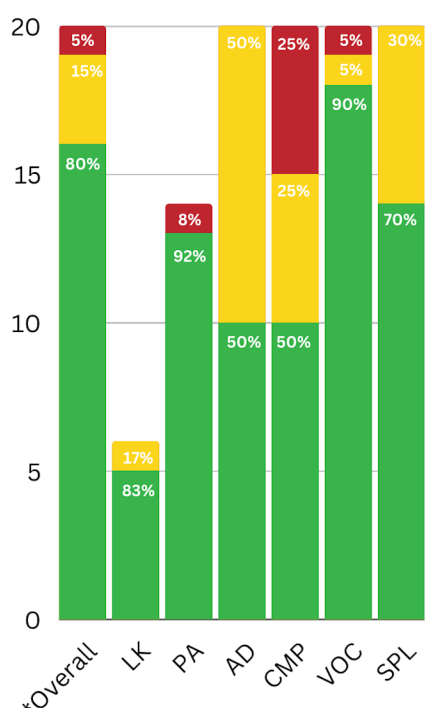
Skills Assessed

Figure 5. March 2020
4 months After Starting Secret Stories®
Last Testing Due to COVID

Students (y-axis, 0–20)

Categories: *Overall, PA, AD, CMP, VOC, SPL, F

- *Overall: Tier 1 90%, Tier 2 5%, Tier 3 5%
- PA: Tier 2 100%
- AD: Tier 1 85%, Tier 2 5%, Tier 3 10%
- CMP: Tier 1 75%, Tier 2 10%, Tier 3 15%
- VOC: Tier 1 85%, Tier 2 10%, Tier 3 5%
- SPL: Tier 1 85%, Tier 2 10%, Tier 3 5%
- F: Tier 1 31%, Tier 2 38%, Tier 3 31%
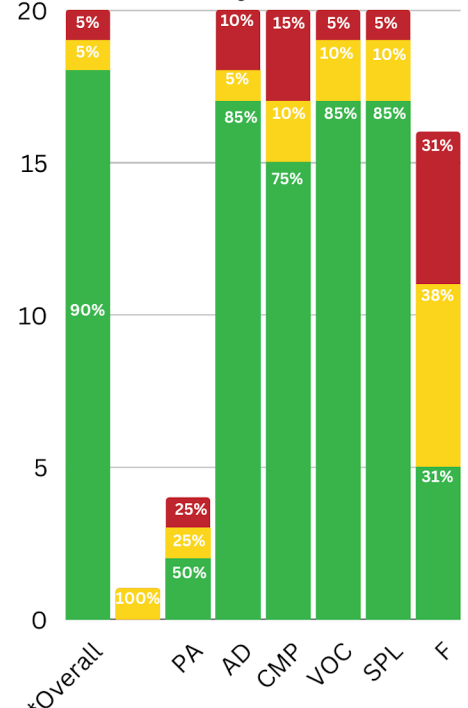
● Tier 1   ● Tier 2   ● Tier 3

Conclusion

An average effect size of 0.9 was found, suggesting a high magnitude of growth with Secret Stories® use. The case study class was the lowest performing on the beginning-of-year assessments of the four grade 1 classes in the school, with just 55% of students meeting the grade level benchmark. After only 1 month of Secret Stories® implementation, 80% of students in the case study class had met the grade-level benchmarks. By March, the case study class had outperformed all of the other grade 1 classes in the school, including the highest performing class in which the majority of students had already met grade level benchmarks at the beginning of the year. This is especially impressive, given the short 4 month time frame of implementation. These results indicate that Secret Stories® has the potential to make a significant impact on students' reading achievement in a short period of time.

Research Limitations

This study report was written and analyzed via secondary data analysis, as the authors did not design the study. The fidelity of the implementation of Secret Stories® (or the control group curriculum) 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.