



**LXDRESEARCH**  
AT CHARLES RIVER MEDIA

# **Spalding's *The Writing Road to Reading***

Efficacy Study Report for Grades K-5  
2022-2024, Longitudinal Gains



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**FEBRUARY, 2025**



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# MODERATE EVIDENCE

LXD Research Recognition for Spalding Education



## Spalding

This product has been rigorously evaluated and is hereby acknowledged for meeting the educational impact criteria of the Every Student Succeeds Act (ESSA), warranting a **Level 2** for "**Moderate Evidence**." This recognition is based on its proven effectiveness in enhancing grade-level learning outcomes compared to traditional methods.

**REVIEWED BY THE LXD RESEARCH EXPERT REVIEW PANEL**

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**Rachel Schechter, Ph.D.**  
Founder of LXD Research

February 28, 2025

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**DATE**

**Educators search for high-quality research and evidence-based interventions to strengthen grant applications, to support comprehensive and targeted schools, or to implement new programming in their schools. Evidence requirements under the Every Student Succeeds Act (ESSA) are designed to ensure that states, districts, and schools can identify programs, practices, products, and policies that work across various populations.**

Educational programs document their evidence of design, effectiveness, and impact in order to be eligible for federal funding. While there is no singular authority that determines a program's tier, the Department of Education's Office of Educational Technology provides standards to assess the varying levels of strength of research for education products.

The categories for ESSA Evidence are: strong (Tier 1), moderate (Tier 2), and promising (Tier 3) evidence of effectiveness, or demonstrates a rationale to be effective (Tier 4).

## This product meets the requirements for Tier 2:

- ✓ In a quasi-experimental design, students who used the program are examined against a comparison group through matching.
- ✓ At least one quasi-experimental study with the proper design and implementation with at least two teachers and a multi-site sample of over 350 students showed statistically significant, positive findings.
- ✓ The study uses a program implementation that could be replicated.
- ★ A third-party research organization has reviewed the documentation for ESSA validation.



When product designers leverage learning sciences to design and evaluate the effectiveness of their programs, educators can better target instruction, and students' skills soar. A matched, quasi-experimental study design using standardized assessment data, an analysis of student growth, and educator feedback demonstrates this product's efficacy, meeting the criteria towards LXD Research's ESSA Tier 2 Evidence.

– Rachel Schechter, Ph.D., Founder of LXD Research



# EFFICACY STUDY SUMMARY

## GRADES K-5

### 2022-2024



#### PROGRAM DESCRIPTION

Spalding’s *The Writing Road to Reading (WRTR)* is a K-6 program designed to introduce students to the most fundamental pieces of language. The program includes aligned professional learning to train teachers to deliver structured, explicit, systematic, and multi-modal phonemic-based instruction to teach and assess all students in spelling, reading, and writing.

#### STUDY DETAILS

##### Location


Large school district in Arizona

- 3 Spalding schools
- 11 Comparison schools

##### Analysis Sample Sizes

Total Sample

- 9647 GK-1, G3-5 student records\*

Matched Sample 

- 1915 GK, G2-4 students

##### School-Wide Demographics

~75% Hispanic | ~10% Black | ~10% SPED

##### Time Frame

Fall 2022-Spring 2024

##### Implementation Description

Teachers used *WRTR* or a comparison program daily for their literacy block

##### Methodology

- Students were matched on BOY scores in 22-23
- Growth scores and EOY scores were used to assess progress and compare performance

\*The total sample size reflects the sum of the student counts used in the separated grade-level cohort analyses. Some students were included in both the kindergarten (2022-23) and first grade (2023-24) analyses, so the total sample size reflects the total count of student records across analyses. For the matched sample, students are followed across years into the next grade, and subsequently only counted once.

#### STUDY CONTEXT

Spalding’s *The Writing Road to Reading* was implemented in 3 schools K-5 (i.e., “Spalding schools”) with 11 comparison schools for the 2022-23 and 2023-24 school years. Teachers in Spalding schools were trained and had access to onsite coaches for implementation support. *The Writing Road to Reading* was used as a whole-class program for literacy, implemented daily during the literacy block. This quasi-experimental study examines K-1 students’ gains on FastBridge earlyReading and 3rd to 5th grade performance on the Arizona Academic Standards Assessment (AASA) across two years of implementation (grades K-4, then grades 1-5), compared to students using comparison programs.

#### KEY FINDINGS

- Following kindergartners through the end of first grade, Spalding schools made higher gains on early reading skills.
- Following grades 2-4 through grades 3-5, Spalding schools had higher state test scores at the end of the second year.



**Across grades, students in schools using Spalding’s *The Writing Road to Reading* outperformed the schools without Spalding on multiple assessments.**

Grade	Significant Difference vs. Comparison Schools	Outcome Measure
K to 1st	✓	FastBridge earlyReading
1st to 2nd	Not trackable with available data	
2nd to 3rd	✓	AASA
3rd to 4th	✓	AASA
4th to 5th	✓	AASA



This symbol indicates the analyses that used the matched sample.

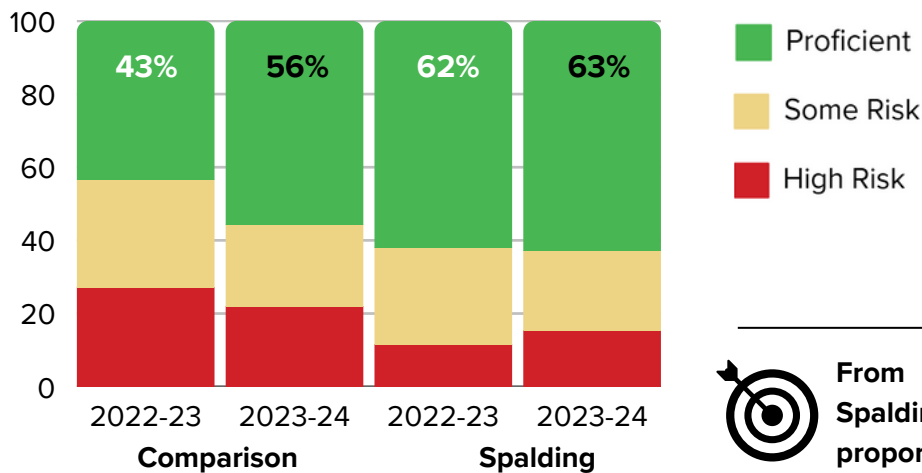


## PROFICIENCY RATES BY SPRING: K TO 1ST GRADE

The proportion of students meeting proficiency levels on earlyReading in the unmatched sample was compared across Spalding and comparison schools over 2 years. The distribution of students across the 3 proficiency levels differed significantly between comparison schools and Spalding schools across the two years examined, for both the Kindergarten and First grade comparisons. As shown in the figures below, more students met proficiency benchmarks in the Spalding schools.

Comparing grade-level cohorts within Spalding schools (i.e., Kindergarteners in 22-23 vs. Kindergarteners in 23-24), there were also fewer students performing below proficiency levels (e.g., High Risk and Some Risk) and more students meeting proficiency benchmarks (e.g., Low Risk, above the 40th percentile) in the second year compared to the first. This difference was significant for 1st graders.

### Kindergarten Proficiency (Spring to Spring)

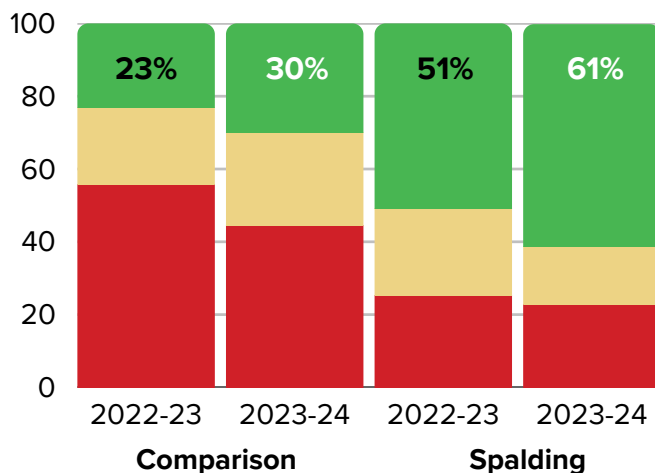


From Spring 2023 to Spring 2024, Spalding schools kept a larger proportion of their students **Proficient**.

Follow numbers in white from the top graph to the bottom graph:

- **Spalding:** 62% → 61%
- **Comparison:** 43% → 30%

### 1st Grade Proficiency (Spring to Spring)



Overall Kindergarten (N = 1653):  $\chi^2(6) = 45.61, p < .001$   
 Spalding only 22-23 (n = 165) vs. 23-24 (n = 189):  $\chi^2(1) = .049, p = .82, \phi$  Effect Size = 0.01

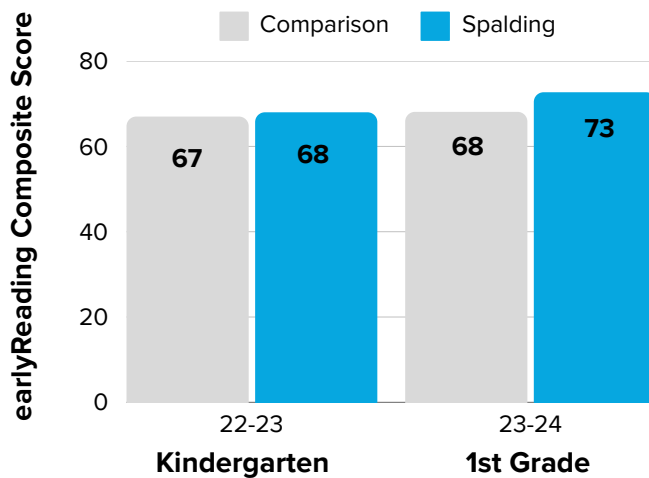
Overall 1st Grade (N = 1847):  $\chi^2(6) = 152.37, p < .001$   
 Spalding only 22-23 (n = 210) vs. 23-24 (n = 184):  $\chi^2(1) = 3.91, p < .05, \phi$  Effect Size = 0.1



## FOLLOWING STUDENTS FROM YEAR 1 TO YEAR 2: K TO 1ST GRADE

After matching students on baseline scores and following them from Kindergarten to 1st grade on the FastBridge earlyReading assessment (N = 292), students using Spalding's *The Writing Road to Reading* had higher Spring 2024 earlyReading scores than comparison students, even after controlling for baseline Fall 2022 scores and demographic covariates, including gender, race, and special education status.

**EOY Scores for Students Followed from Kindergarten to 1st grade**

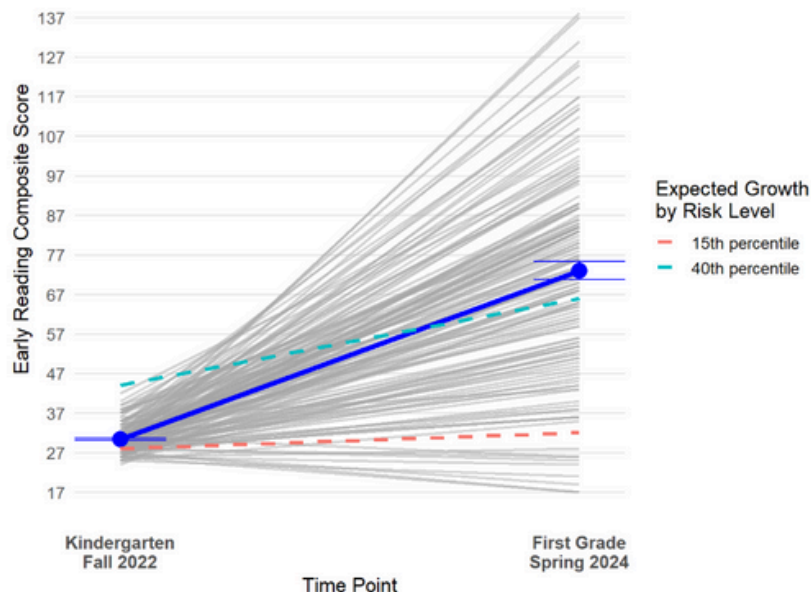


Spalding students who started at the same place as comparison students in Kindergarten showed higher scores at the end of 1st grade.

Kindergarten → 1st (n = 292):  $F(1, 238) = 4.63, p = .03, \eta^2 = .02$ , small to medium effect

Students using Spalding's *The Writing Road to Reading* showed significant growth year-over-year on earlyReading, showing large gains compared to expected growth based on national norms. Spalding students started around the 15th percentile, **yet outpaced the expected growth for students at the 40th percentile.**

**Expected Growth by Risk Level Fall of K to Spring of 1st Grade**

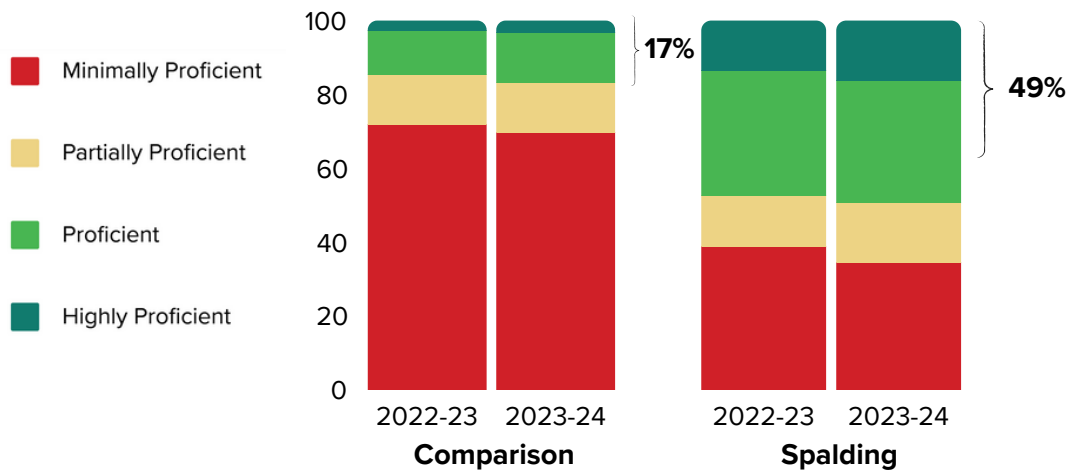


Fall 22 to Spring 24:  $F(1, 130) = 355.8, p < .001, \eta^2 = .73$ , large effect

### PROFICIENCY RATES ON ARIZONA STATE TEST: 3RD TO 5TH GRADE

Comparing the proportion of students meeting proficiency levels on the state test in the unmatched sample, there was a significant difference in the distribution of proficiency levels between Spalding and comparison schools over the 2 years examined. Across Spalding and comparison schools in 22-23 and 23-24, there were fewer students performing below proficiency levels and more students meeting proficiency benchmarks in Spalding schools than comparison schools.

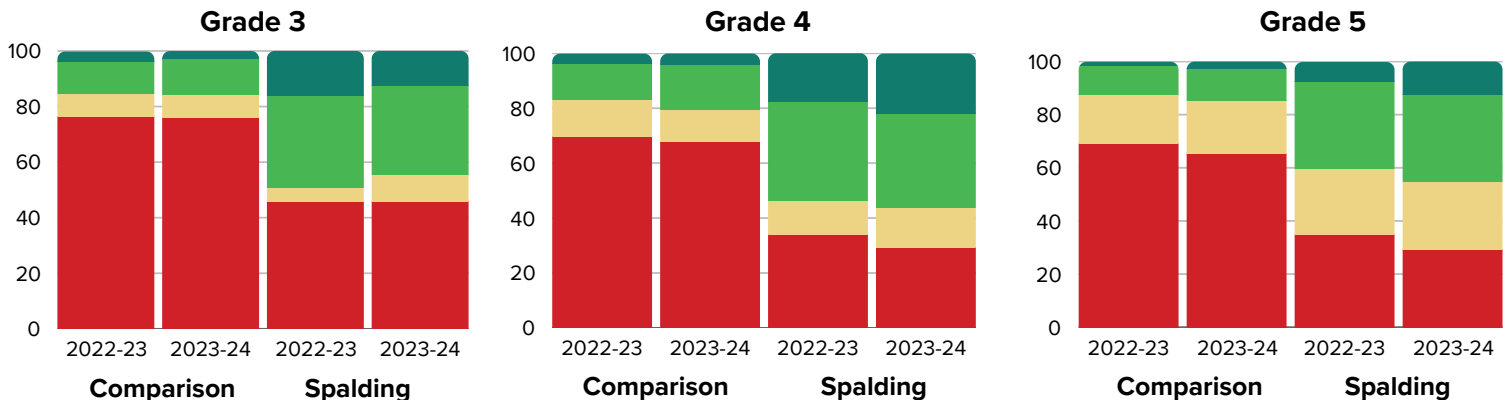
**AASA State Test Proficiency, Grades 3-5 Overall**



Overall (N = 5703):  $\chi^2(9) = 695.7, p < .001$ , Cramer's V effect size = 0.20, medium effect  
 Spalding 22-23 (n = 666) vs. Comparison 22-23 (n = 2205):  $\chi^2(3) = 343.01, p < .001$ , Cramer's V effect size = 0.34, large effect  
 Spalding 23-24 (n = 663) vs. Comparison 23-24 (n = 2169):  $\chi^2(3) = 347.03, p < .001$ , Cramer's V effect size = 0.35, large effect

This pattern also held for each of the grades 3-5 separately. Across 2022-23 and 2023-24, there were more students meeting proficiency benchmarks in Spalding schools than comparison schools.

**AASA State Test Proficiency, Split by Grade**



$\chi^2(9) = 204.99, p < .001$ ,  
 Cramer's V effect size = 0.19, medium effect

$\chi^2(9) = 282.24, p < .001$ ,  
 Cramer's V effect size = 0.22, large effect

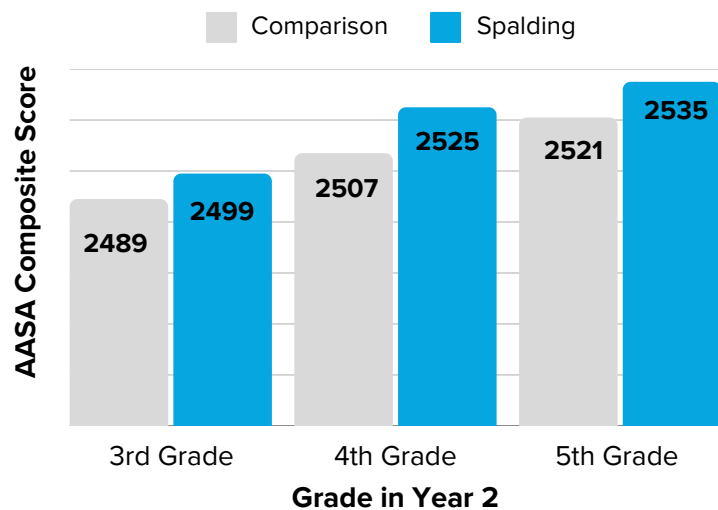
$\chi^2(9) = 234.34, p < .001$ ,  
 Cramer's V effect size = 0.20, large effect



## FOLLOWING GRADES 2-4 FROM YEAR 1 TO YEAR 2: GRADES 3-5

After matching students in Spalding and comparison schools on their 2022-23 Fall scores for each grade level, their Arizona Academic Standards Assessment (AASA) scores were compared at the end of Year 2 of observation (e.g., 2nd graders were matched in Year 1, and then later their 3rd grade state test scores were compared at the end of Year 2, 2023-24). Each grade level of Spalding students outperformed comparison students, controlling for baseline scores and demographic covariates, including gender, race, and special education status.

**AASA State Test Scores for 3rd to 5th Grade Students in Year 2**



2nd → 3rd (n = 480):  $F(1, 357) = 16.79, p < .001, \eta^2 = .05$ , small to medium effect  
 3rd → 4th (n = 627):  $F(1, 476) = 61.99, p < .001, \eta^2 = .12$ , medium to large effect  
 4th → 5th (n = 516):  $F(1, 393) = 33.64, p < .001, \eta^2 = .08$ , medium to large effect



Spalding students who started at the same place as comparison students in Year 1 showed higher scores at the end of Year 2.

## CONCLUSION AND NEXT STEPS

Overall, students in Spalding schools showed improved performance compared to schools using comparison programs. Spalding schools also showed compounding growth across years of implementation, with higher scores and increased proficiency levels in the second year of observed implementation compared to the first.

Looking at the proficiency rate findings, there is a clear 'flipping of the triangle.' Unlike the comparison schools who had most of their students below proficiency, with only a few above proficiency, the Spalding schools had most of their students above proficiency levels, with fewer students falling below proficiency levels.

Recommended next steps include following students through an additional year within Spalding schools to measure effects of continued implementation on year-over-year performance. Capturing educator voices would also provide more context and perspectives in terms of implementation strengths and challenges.



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**Spalding**

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