EFFICACY STUDY SUMMARY 2022-2023

PROGRAM DESCRIPTION

Zaner-Bloser Kickstart: Number Sense enhances foundational mathematical thinking to deepen their conceptual understanding of numbers (number sense), bolstering proficiency in grade-level skills and strengthening their identity as mathematicians to build community, curiosity, and confidence in math learning.

STUDY DETAILS

Analysis Sample Sizes

One School, Kickstart Users, 2 years
- 130 1st Graders, 163 2nd Graders

Two Schools, All Students, 3 years
- 538 3rd Graders

Comparison schools, 3 years
- 2,639 3rd Graders

Time Frame

Spring 2019 - Spring 2023

Implementation Description
- Two schools used Kickstart: Number Sense daily for 20 minute group lessons.
- Instructors without math instruction experience (music, art, P.E., Spanish) led pull-out.
- Classroom teachers led push-in group lessons.

Methodology
- Math skill progress for grades 1-2 were analyzed over two years.
- Publicly available third grade proficiency scores were compared for three time points.
- Instructors were interviewed.

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Zaner-Bloser

STUDY SUMMARY

Kickstart: Number Sense

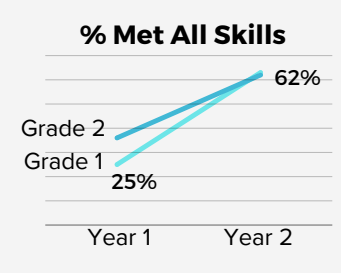
Knowing students were missing essential pre-requisite skills, a school district in Oregon started training with Jen Hunt to provide early math intervention before COVID. Leaders implemented Kickstart: Number Sense from Fall 2021 to Spring 2023, monitoring the development of critical math skills for first and second graders. By intervening early, Kickstart: Number Sense schools outperformed comparison schools of similar size across the state on third grade exams.

Example Critical Skill

I can +/- 10 from a given number within 120

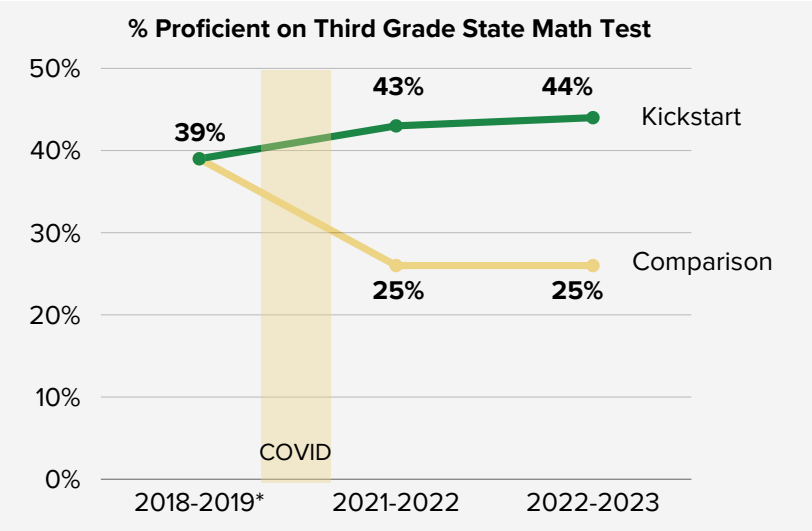
KEY FINDINGS

Grade 1 and Grade 2 Kickstart users showed significant growth over two school years, with more students meeting expectations for all critical math skills measured, closing gaps.



Kickstart Users outperform Comparison schools across multiple years.

Though starting at the same level of proficiency, Kickstart schools showed higher third-grade proficiency rates compared to Comparison schools in 2021-2022 and 2022-2023. Kickstart schools improved from before to after the pandemic, while Comparison schools experienced a reduction in proficient students.



Grades 1-2 Kickstart 2021-2022 vs. 2022-2023
1. Grade 1: $X2(1, N = 130) = 16.794$, $p < .001$, Phi coefficient effect size = .375.
2. Grade 2: $X2(1, N = 163) = 10.96$, $p < .001$, Phi coefficient effect size = .26.

Grade 3 Kickstart vs. Comparison Schools
1. 2018-2019: $X2(1) = 0.03$, $p = .86$
2. 2021-2022: $X2(1) = 18.88$, $p < .001$, Phi coefficient effect size = .15
3. 2022-2023: $X2(1) = 26.05$, $p < .001$, Phi coefficient effect size = .16