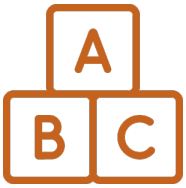
SEEDS
of Learning Program Evaluation

STUDY OVERVIEW and MAIN FINDINGS

October 2, 2020



SEEDS training significantly and positively supports early reading skills!

The program can significantly contribute to **improving kindergarten readiness skills**, which supports closing school readiness gaps for students.

Trained educators can nurture preschool students' language, literacy and social emotional skills.

A preventative approach can help **close opportunity gaps** between children

SEEDS of Learning (SEEDS) is a relationship-based professional development and coaching model based on current research in early childhood education, child development, emergent literacy and effective teaching. Evidence from this study suggests that this program can **significantly contribute to closing the opportunity and school readiness gaps at kindergarten entry**.

Evidence of effectiveness from rigorous new research from an independent, scientific study of Bay Area preschools. The opportunity gaps that currently exist are apparent by the time children enter kindergarten. Research shows that we can take a **preventative approach** to addressing those inequities by investing in kids during the years where that gap is created and providing opportunities in the most formative years of a child's life.

This model was **validated in a rigorous randomized control trial study**, the gold standard for determining the causal impact of a program on desired outcomes, on a large scale across 26 preschools. A single year of SEEDS training was shown to **produce statistically significant, positive improvement in student early reading skills.**

STUDY DETAILS

GOALS, BACKGROUND, DESIGN, and SAMPLE.

GOAL: ASSESS THE IMPACT OF THE PROGRAM

The goal of the evaluation was to assess the impact of the **SEEDS of Learning Program (SEEDS)** on early educators' knowledge and practice over time, and their 4 and 5 year old students' oral language and early reading outcomes. The study took place at **Kidango preschool centers**, a large early childhood care and education provider in the East San Francisco Bay. The present memo focuses on student outcomes.

BACKGROUND

SEEDS is an evidence-based Response to Intervention (RtI) professional development (PD) program that prepares early childhood educators to **promote kindergarten readiness through development of children's oral language, emergent-literacy, and social-emotional skills.**

NORC at the University of Chicago partnered with Kidango and the Kenneth Rainin Foundation to directly assess the impact of SEEDS on their four and five year old students' oral language, and emergent-literacy outcomes.

As of fall of 2020, the first two years of this three year study have been completed. The third year is currently postponed due to COVID-19.

DESIGN

This study **presents results from a single arm of a multi-year within-teacher randomized controlled trial study** of the impact of SEEDS of Learning on students' oral language and emergent literacy outcomes.

These results reflect outcomes from a delayed-treatment, within-subjects design of the 13 randomly assigned control centers. During the 2017-2018 school year, teachers and their students were assessed in fall 2017 (pretest) and spring 2018 (post-test), in the prior to receiving SEEDS training.

Teachers in these centers received SEEDS training the following school year (2018-2019). SEEDS' impact was assessed yearly by collecting teacher and student outcome data in fall 2018 (pretest) and spring 2019 (posttest).

Student outcome measures included scales from two assessments: the **Individual Growth and Development Indicators (IGDI)**, which assesses fluency in vocabulary and phonological awareness (rhyming and alliteration), and the **FastBridge assessment**, which evaluated fluency in letter name identification and letter sound correspondence. Estimates of SEEDS' impact were computed using hierarchical linear models of the IGDI and FastBridge skill scores, and marginal predictions thereof.

STUDY DETAILS

GOALS, BACKGROUND, DESIGN, and SAMPLE.

SAMPLE

The present analysis includes **427 students across two years**.

Initial study participants: 334 attended the 13 comparison centers in the 2017-2018 school year (study year 1) and 230 attended the comparison centers in the 2018-2019 school year (study year 2).

Study attrition: 137 student observations had to be dropped because they switched classrooms or left the program from fall to spring, were absent during one or multiple days of data collection, or refused to participate in certain portions of the assessment.

These centers were spread across the **East San Francisco Bay area** and represented a diverse range of students.

Balance analyses found no statistically significant differences between the two experimental conditions in the larger study; in year 2 of the study there were sample differences in student race and ethnicity when compared to year 1. The study accounted for this difference by using statistical "controls" for these characteristics during analysis.

Study Sample Characteristics	2017-2018	2018-2019
Female	53.5%	49.3%
Hispanic/Latino	56.2%	47.3%
DLL	36.5%	27.5%
Race		
American Indian or AK Native	2.1%	1.8%
Asian	26.8%	27.9%
Black or African American	9.1%	15.5%
Native HI or Other Pacific Islander	1.8%	4.4%
White	60.1%	50.4%
Preschool Enrollment		
Part-time only	55.7%	53.5%
Full-time only	10.9%	11.3%
Part-time and Full-time	33.5%	35.2%

FINDINGS

RESULTS and FIGURES

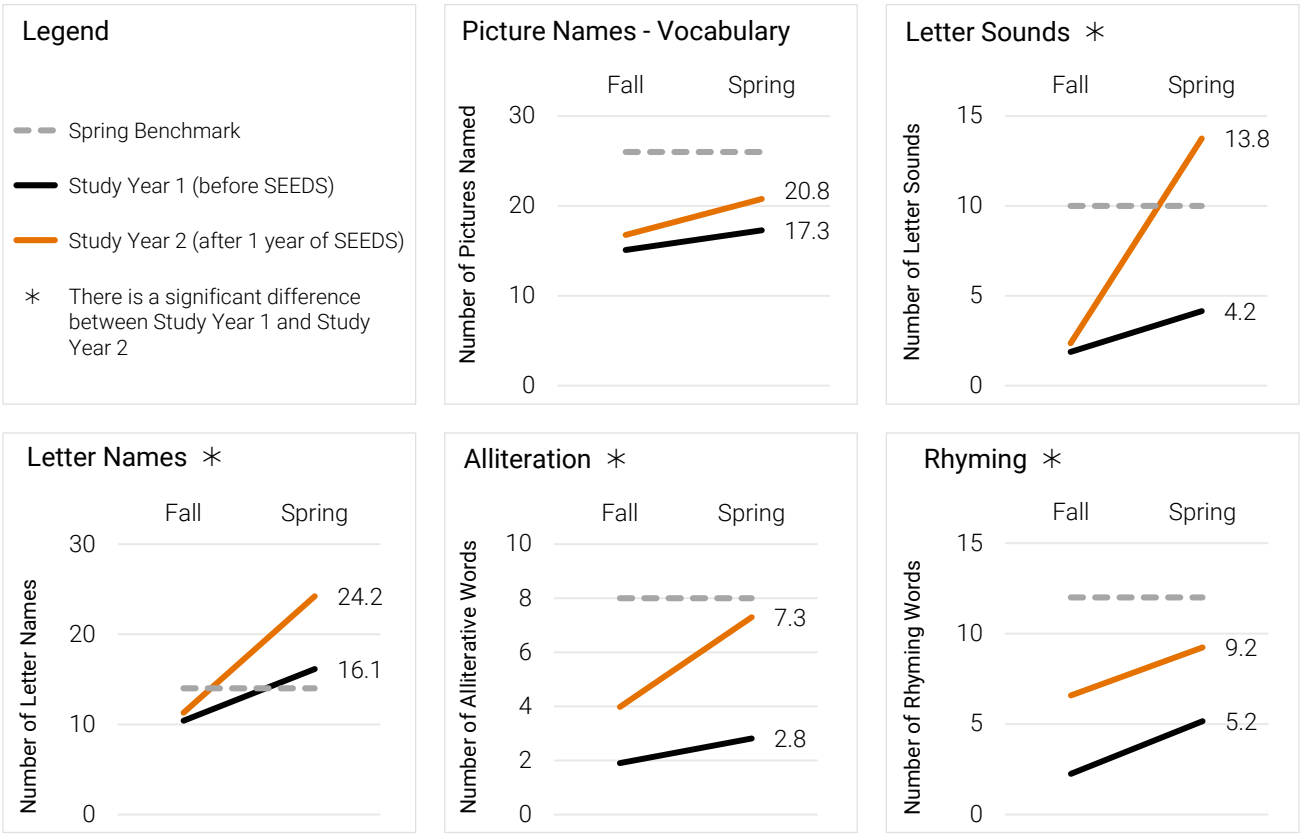
RESULTS

Overall, **teachers with one year of SEEDS training helped their students achieve significantly higher end-of-year student emergent literacy outcomes** than they did before SEEDS training the year prior. In study year 2 (2018-2019), students scored significantly higher in alliteration, rhyming, letter names, and letter sounds than the original 2017-2018 comparison group students (effect size range = .24 to 1.04 standard deviations). Given that typical early childhood students learn about 1.5 standard deviations a year in reading (Hill et al., 2008), these effect sizes represent impacts of a magnitude similar to between 2 and 8 months of learning.

These impacts are similar in magnitude to many of the major pre-k impact studies in the field. For example, evaluations of the Tennessee voluntary pre-k program found effect sizes between .3 to .4 (Lipsey et al., 2011) when comparing students who attended a pre-k program to those who did not attend any pre-k.

Hill, C. J., Bloom, H. S., Black, A. R., & Lipsey, M. W. (2008). Empirical benchmarks for interpreting effect sizes in research. Child development perspectives, 2(3), 172-177.

Lipsey, M. W., Farran, D. C., Bilbrey, C., Hofer, K. G., & Dong, N. (2011). *Initial results of the evaluation of the Tennessee Voluntary Pre-K Program*. Nashville, TN: Peabody Research Institute, Vanderbilt University.



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