Lexia® California

STATE IMPACT REPORT

The Impact of Lexia Core5® in California

Key Findings

- California schools serving 3rd to 5th grade students that used Lexia® Core5® scored 2-3 points higher on the Smarter Balanced English Language Arts/Literacy Assessment than schools that did not use Core5.
- Core5 schools also scored higher on the Smarter Balanced Math Assessment than schools that did not use Core5.

Introduction

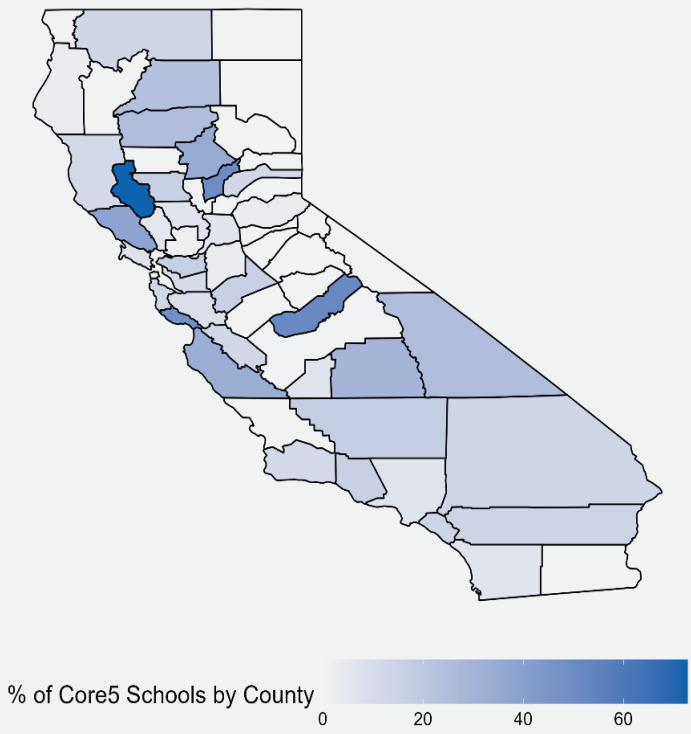
Following the COVID-19 pandemic, U.S. school districts received billions of dollars in federal aid through the Elementary and Secondary School Emergency Relief (ESSER) Act to support the implementation of evidence-based interventions (U.S. Department of Education, 2021). Through this initiative, many districts began implementing computer-based reading interventions, including Lexia® Core5 Reading®, to improve students' reading achievement. As a result of this funding, reading proficiency of elementary students in California has increased steadily since 2021 (California State Department of Education, 2024). Despite this improvement, fewer than half of California students read at proficient levels on the Spring 2023 Smarter Balanced English Language Arts/Literacy assessment (California State Department of Education, 2024). Following the expiration of post-pandemic federal relief funds in 2024, school leaders are faced with the choice of whether to continue their investment in interventional programs. This study therefore focused on whether elementary schools that used Core5 in the 2022-23 school year outperformed schools that did not use Core5 on the Smarter Balanced English Language Arts/Literacy (SBAC ELA) assessment.

Intervention programs such as Core5 may accelerate growth of students' literacy skills. Research has shown that that students in grades 3-5 who use Core5 exhibit greater reading achievement than students from matched schools (Pane et al., 2023). Importantly, elementary reading proficiency is crucial to students' overall academic success, as elementary reading scores are highly predictive of high school graduation rates (Hernandez, 2012). Given the critical need to improve California students' reading proficiency, this study focused on the impact of Core5 on students' ELA achievement in California's public schools in the 2022-23 school year. This study is the first to investigate the impact of Core5 at scale in California schools and provides Moderate evidence of effectiveness according to the federal guidelines provided under ESSA.

Study Design

Lexia researchers merged publicly available grade-level SBAC assessment data from Spring 2022 and Spring 2023, with school-level demographic data from the 2022-23 school year. All data were obtained from the California State Department of Education (CA DOE) website. The CA DOE reports the percentage of students falling in each of four ELA performance levels by grade for each school, with the highest two performance levels considered proficient. Lexia researchers then merged grade-level Core5 usage data with the Spring 2022 SBAC, Spring

2023 SBAC, and 2022-23 demographics data. We restricted our analyses to grades 3-5, as grade 3 is the earliest grade tested on the SBAC. We considered any school that had at least 20% of their 3rd–5th grade Core5 students meet the state average for Core5 usage in the 2022-23 school year to be a "Core5 school," and removed the remaining low fidelity schools.



The sample for this study consisted of 1,026,692 3rd–5th grade students across 4,887 schools in 771 districts in California. Of these schools, 525 used Core5 in 2022-23 and 4,362 did not. The figure illustrates the distribution of Core5 schools across the state. The table presents school-level characteristics. On average, schools had a total enrollment of 494 students, 62% of whom qualified for free or reduced-price lunch. Schools in this analytic sample included 20% White students, 5% Black students, 57% Hispanic/Latino students, and 19% students of another race. During the 2022-23 school year, 40% of students scored in the proficient range on the Spring 2023 SBAC ELA assessment. The table also summarizes school-level variables for Core5 schools (*n* = 525, supporting 130,123 3rd–5th grade students) and Non-Core5 schools (*n* = 4362,

supporting 896,569 3rd–5th grade students) separately. On average, Core5 schools had significantly more Hispanic/Latino students, fewer Black students, and more English Learner students than Non-Core5 schools (all *p*s < .05). However, Core5 and Non-Core5 schools were similar in their total enrollment and in their percentage of White students, students of other races, and students receiving free or reduced-price lunch.

Characteristics of Schools in California (2022-23).

	Core5 School (n=525)	Non-Core5 School (n=4362)	Overall (N=4887)
% Proficient on Spring 2023 SBAC ELA Test	40	40	40
% Proficient on Spring 2023 SBAC Math Test	40	40	40
Avg. School Total Enrollment	502	493	494
% Free/Reduced Price Lunch	62	62	62
% White	19	21	20
% Black/African-American	4	5	5
% Hispanic/Latino	60	56	57
% Other Race	18	19	19
% English Learners	28	24	25

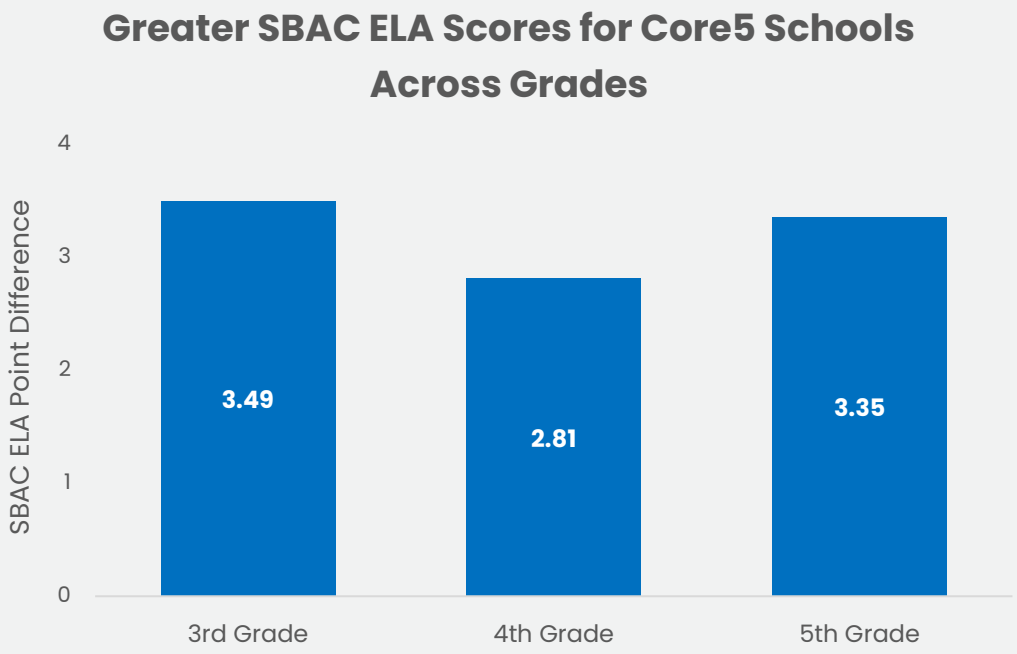
In the first set of analyses, we examined 2023 SBAC ELA scores for Core5 and Non-Core5 schools. Given that Core5 and Non-Core5 schools differed in several demographic characteristics (see above), we performed sensitivity analyses in which we matched Core5 schools to Non-Core5 schools on 2022 SBAC ELA scores and demographic characteristics.

These analyses ensured the Core5 and Non-Core5 schools were similar at baseline in 2022 SBAC ELA average scale scores, race/ethnicity, school enrollment, and economic disadvantage. We then fit multiple regression models to predict the effect of using Core5 on 2023 SBAC ELA scores, controlling for schools' prior ELA achievement on the 2022 SBAC. Given that the SBAC Math assessment requires considerable reading comprehension ability (Smarter Balanced, 2015), the second set of analyses investigated whether Core5 schools performed better on SBAC Math scores compared to Non-Core5 schools. These analysis used identical procedures to the ELA analyses to ensure that Core5 and Non-Core5 schools were similar at baseline in 2022 SBAC Math scale scores and demographic characteristics.

Results

California schools serving 3rd to 5th grade students that used Core5 scored 2-3 points higher on the SBAC ELA assessment than schools that did not use Core5.

Across all three grades, sensitivity analyses showed that Core5 schools scored significantly higher on the SBAC ELA assessment than non-Core5 schools that were matched based on prior year scores and demographics. Specifically, third graders at Core5 schools scored an average of 3.49 points higher, fourth graders scored 2.81 points higher, and fifth graders scored 3.35 points higher than students at matched Core5 schools (all *p*s < .05).



Core5 schools also scored higher on the SBAC Math assessment than schools that did not use Core5.

Additionally, Core5 schools scored higher on the SBAC Math assessment than Non-Core5 schools. When Core5 and Non-Core5 schools were matched based on prior year scores and demographics, third graders at Core5 schools scored an average of 3.08 points higher and fourth graders scored 3.04 points higher than third and fourth grade students at matched non-Core5 schools (both *p*s < .01). Fifth graders at Core5 schools scored 2.05 points higher than fifth graders at matched Non-Core5 schools, but the difference was not statistically significance ($p > .1$). Thus, both sets of analyses indicate that 3rd–5th graders at Core5 schools score higher on both SBAC ELA and Math assessments than students at Non-Core5 schools.

Want to learn more?

For additional information or updates on research related to Core5, please contact research@lexialearning.com.

Lexia®

a **cambium** company

Lexia®, a Cambium Learning Group brand, is a leader in science-of-reading-based solutions. For over 40 years, the company has focused on pre-K-12 literacy and today provides solutions for every student and educator. With a complete offering of professional learning, curriculum, and embedded assessment, Lexia helps more learners read, write, and speak with confidence.

lexialearning.com