RESEARCH BRIEF

The Impact of Lexia® Core5® on Student Reading in Lexia® LETRS® Classrooms

Key Findings

- Students with LETRS teachers made significantly more weeks of progress in Core5 than students without LETRS teachers.
- Students who used Core5 more also had higher Smarter Balanced ELA scores than students who did not use Core5, especially when taught by teachers who completed more of LETRS.

Introduction

Lexia® Language Essentials for Teachers of Reading and Spelling (LETRS®) is comprehensive professional learning aimed at providing elementary teachers the deep knowledge needed to be literacy and language experts in the science of reading. The LETRS logic model explains how LETRS can improve students' reading outcomes as teachers increase their knowledge of reading content and pedagogy. However, research shows that students experience the greatest benefit when teachers' professional development is combined with student curricula in line with the professional development program (van Kuijk et al., 2016). Lexia® Core5® Reading is an evidence-based reading program for students that shares LETRS' emphasis on phonics, phonological awareness, vocabulary, fluency, and comprehension. As part of an ongoing commitment to evaluating its programs, Lexia researchers conducted a study to explore whether Core5 complemented LETRS learning.

Lexia researchers partnered with two school districts in which elementary teachers varied in terms of the extent to which they completed LETRS. Teachers ranged from not beginning LETRS to completing the full program. Lexia researchers first examined how Core5 tended to be used by the teachers. They then examined whether student use of Core5 influenced their Smarter Balanced English Language Arts (SBAC ELA) performance, and whether the impact of Core5 varied depending on their teacher's progress in LETRS.

Study Design

The sample consisted of 12,868 students across 542 classrooms in 2 school districts in the western United States. All students were in grades 3-5 in the 2023-24 school year. Of these, 5,671 students used Core5 in the 2023-24 school year, and 2,135 students had a teacher who had at least started LETRS by the end of the 2023-24 school year. The table presents demographic and Smarter Balanced assessment data for the full student sample.

12,868 Students	542 Classrooms	2 Districts	Grades 3-5

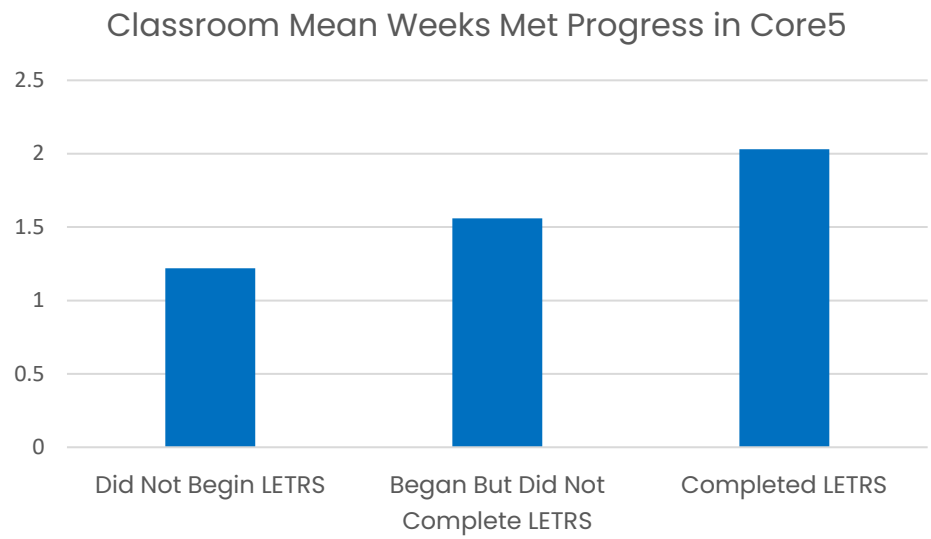
Pre-matching Descriptive Statistics	Core5 Students (n=5,671)	Non-Core5 Students (n=7,197)	Overall (N=12,868)
Mean Baseline SBAC ELA scale score	2406	2450	2433
% Racial Minority	64	51	57
% Free/Reduced Price Lunch	48	29	33
% English Learners	32	17	23
% SPED	17	13	15
Mean Core5 Mins of Use	389	0	171

To understand how teachers used Core5, researchers examined patterns in students use of Core5 for three types of classrooms: classrooms in which teachers did not begin LETRS, classrooms in which teachers began but did not complete LETRS, and classroom in which teachers completed LETRS. To estimate the impact of Core5, researchers used propensity score matching to compare similar grade students in each type of classroom, increasingly restricting the sample by student use of Core5. They then analyzed the effect of Core5 on SBAC scores for students who met Core5 usage requirements 10%, 30%, and 50% of weeks. The lower fidelity student groups were inclusive of students in the higher groups. Impact analyses were limited to grades 4 and 5 because only these grades had baseline SBAC scores.

Results

Students with LETRS teachers made significantly more weekly progress in Core5 than students without LETRS teachers.

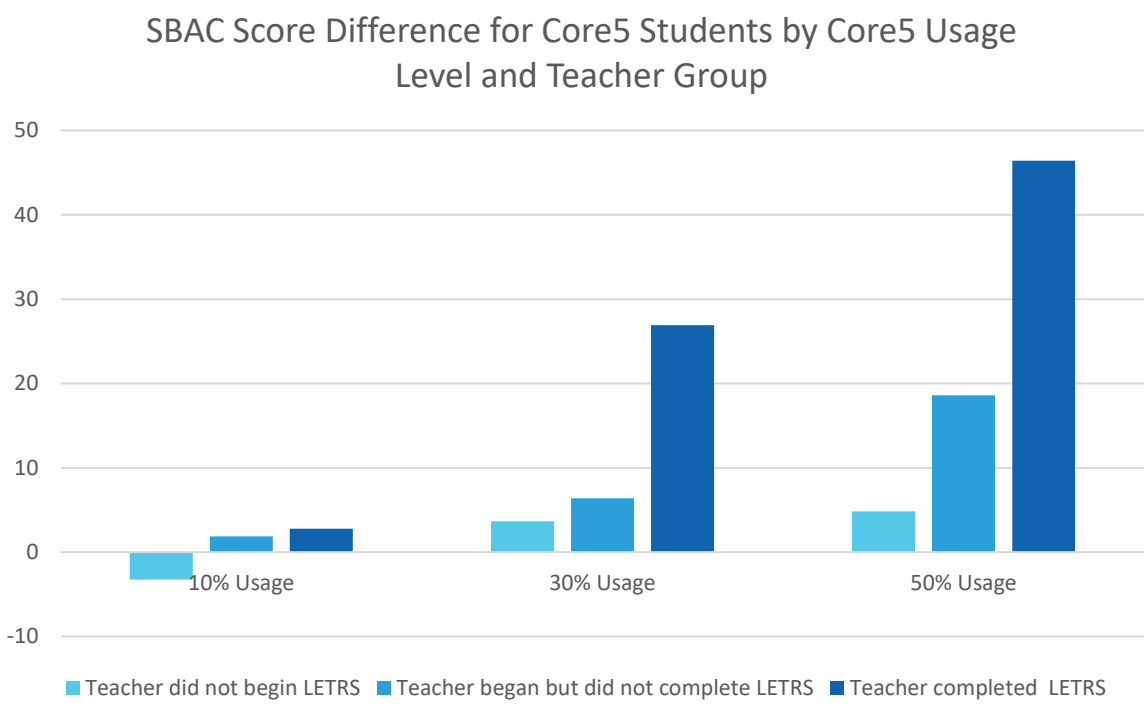
As an adaptive blended learning program, Core5 is used by schools in different ways, ranging from Tier 1 whole class programming to Tier 2 and 3 supplemental programming. In the present study, Core5 was generally used as an optional supplemental program within classrooms. This contextual dynamic is reflected in the lower baseline SBAC scores for Core5 students prior to matching. It is important to note because it suggests the study's results may best generalize to environments in which Core5 is used in tiered interventions.



To better understand how Core5 was implemented, researchers examined Core5 fidelity for three distinct groups of teachers: teachers who did not begin LETRS, teachers who began but did not complete LETRS, and teachers who completed LETRS. They found that as teachers completed more of LETRS, their students used Core5 for a greater number of total minutes and met weekly usage and progress recommendations in Core5 a greater number of weeks, with the latter difference reaching statistical significance. Interestingly, the average number of weeks that students made progress was relatively low across groups, with high variation within and across classrooms. This pattern reflects targeted use of Core5's as a supplemental program: widespread access to Core5 did not translate to widespread use, driving down class means.

Students who used Core5 more had higher Smarter Balanced ELA scores than students who did not use Core5, especially when taught by teachers who completed more of LETRS.

After evaluating the study context, researchers compared the SBAC ELA scores of students in grades 4 and 5 who used Core5 to those of students who did not. Within each type of LETRS classroom, students were matched on baseline SBAC scores and demographics. The pattern that emerged was that the effect of Core5 tended to increase as students used the program with greater fidelity, and this pattern intensified as teachers completed more of LETRS. In each group, the difference in SBAC ELA scores for Core5 and non-Core5 students was highest when students used Core5 at least 50% of weeks with fidelity. Specifically, students who used Core5 at least 50% of weeks with fidelity had SBAC scores 26.9 points higher when their teacher had at least started LETRS, and 46.4 points higher when their teacher had completed LETRS, relative to matched non-Core5 students. The last difference reached statistical significance.



Overall, the findings from this study are consistent with the logic model for Core5, which indicates that a critical long-term outcome of Core5 use with fidelity is improved performance on external reading assessments. They also suggest that Core5 may work better when paired with LETRS. In the present study the impact of Core5 grew larger as teachers completed more of LETRS and was more pronounced with greater student use of Core5. The larger impact likely reflects a combination of greater Core5 use and better integration of Core5 into classroom instruction given the modest differences in time that students spent using Core5 across groups.

Want to Learn More?

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

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