Lexia Reading Core5 External Evaluation Summary

More Time on Core5 Significantly Increases Literacy Scores in All Grades (K-3)

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Key Findings

- A significant and positive relationship was found between additional hours on Core5 and increased literacy scores (DIBELS Next composite scores) for all grades K-3.
- These findings emphasize the importance of program dosage for producing learning benefits. Students should aim to exceed their weekly usage recommendations for at least 20 weeks during the year to see maximum impact on literacy growth.

The report below reflects a summary of results on Core5 taken from the K-3 Early Intervention Software Program Evaluation Report compiled for the state of Utah by the Evaluation and Training Institute (ETI).

Program Description

Lexia Reading Core5 is a technology-based instructional program that provides students the explicit instruction needed to accelerate mastery of reading skills. In Core5, students complete activities (i.e., skills) that cover Pre-K-5th grade, such as initial/final consonants discrimination, silent-e word construction, categorizing, idioms, and reading comprehension. Mastery of skills (90%–100% accuracy) is required for students to advance to the next level. Students' grade-level benchmark is to complete all of the material up to and including the Core5 levels that correspond to their grade level.

Sample Description

Over 23,000 students in grades K–3 across the state of Utah used Core5 during the 2016/17 school year. The sample included students of all abilities in K-1, while in grades 2-3 included students were identified as needing intervention in reading, based on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS Next).

Core5 automatically provides weekly recommended usage targets between 20 and 60 minutes that update monthly, which adjust based on a student's likelihood of reaching benchmark in the program. On average, students in this study logged into the program for 53 minutes per week for 23 weeks. Table 1 presents the number of students who used Core5 and were eligible to be part of the evaluation report. A smaller group of students had met their usage and were included in the growth and progress analyses (see original report for details).

Table 1. Sample size and Average Usage Information by Grade

Grade	N	Minutes per Week	Number of Weeks	Total Hours of Use
K	7,563	48	20	17
1	10,173	55	25	24
2	2,958	57	25	25
3	3,138	53	23	22
All	23,832	53	23	22

Program Use Effects on DIBELS Next Scores

A regression[1] model was used to understand the relationship between hours of use and literacy outcomes. A significant and positive relationship was found between additional hours and increased literacy scores (composite scores) for all grades (K-3). This finding emphasizes the importance of program dosage for producing learning benefits.

The regression model provides a coefficient that contextualizes the strength of the relationship. This number represents, in this case, an increase in the composite score on DIBELS Next at the end-of-year (EOY) for every additional hour of Core5 use during the year. This regression model also controlled for variations in scores due to student or school demographics In other words, with for kindergartners with the same demographics, every additional hour of Core5 use was associated with a composite score increase of .378.

Table 2. Effects of Hours of Program Use on Literacy Scores in Each Grade

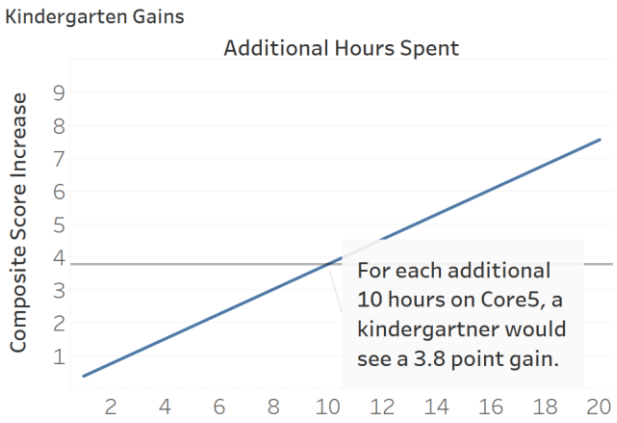
Grade	N	DIBELS Next EOY Composite (Coefficient)
K	6,542	.378***
1	8,455	.463***
2	2,409	.315***
3	2,539	.299**

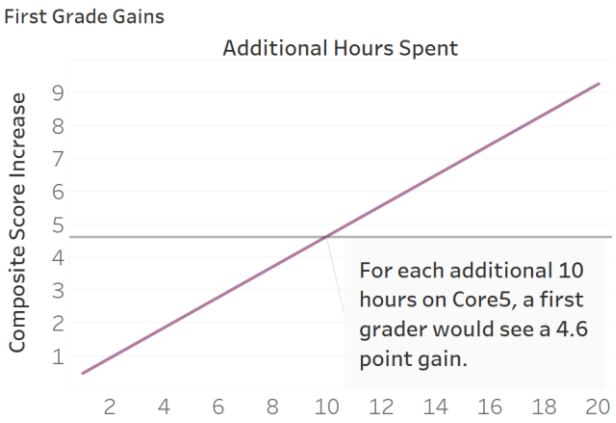
*p≤.05, **p≤.01, *** p≤.001

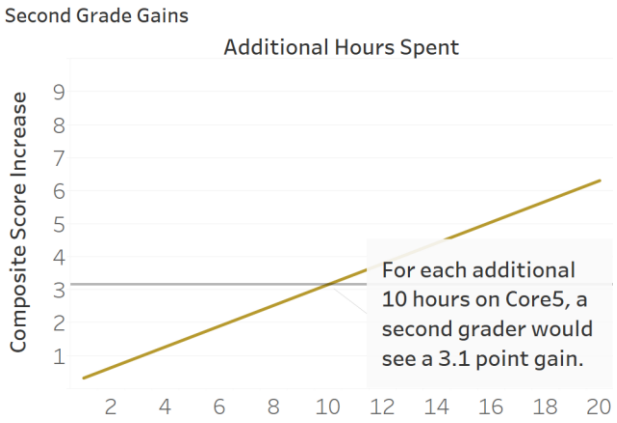
[1] for full analysis details see the original report

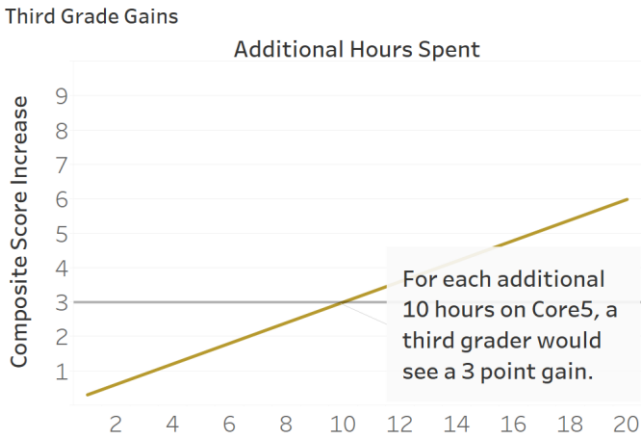
The graphs below display a visual representation of the impact on program use on DIBELS EOY scores for each grade, based on the results of the regression model. Each graph highlights the results for an additional 10 hours of use over the course of a year using a reference line, which reflects the potential impact of an additional 30 minutes per week for 20 weeks.

Figures 1-4. Average EOY DIBELS Composite Score Increase per Additional Hour Spent Online









Additional details and the full report are included in the Utah State Board of Education meeting notes from November 3, 2017, subject K-3 Early Intervention Software Program (EISP) Evaluation (R277-496).