

Product Evidence Base



# Lexia<sup>®</sup> Core5<sup>®</sup> Reading Efficacy Research

July 2023

**Lexia<sup>®</sup>**

Lexia  
 **CORE5<sup>™</sup>**  
READING



## Introduction

Lexia Learning has a long history of building digital programs to help students become proficient readers. Included in the portfolio is Lexia Core5 Reading, a program that accelerates the development of fundamental literacy skills for students of all abilities in preschool through grade 5. One essential element of Lexia’s approach is to conduct rigorous scientific research to demonstrate the efficacy of its programs. Here we summarize research studies showing the evidence base for Core5.

Core5 follows a rigorous scope and sequence built for college and career-ready standards, offering explicit, systematic instruction through personalized learning paths in six areas of reading. Embedded assessment technology predicts students’ year-end performance and provides ongoing norm-referenced and actionable data to help teachers prioritize and plan instruction. Content specialists continually update Core5 to meet guidelines for inclusivity principles drawn from literature on culturally responsive pedagogy. As a blended learning program, Core5 integrates online activities with offline instruction. Key elements of the online component include ease of access to and use of the program, as well as program features that promote student engagement and motivation. Coupled with online activities are teacher-directed, offline materials that are highly targeted to the needs of individual students.

## Key Findings

Across multiple studies, we found:

- **Strong associations between progress in Core5 and scores on standardized reading assessments.** Progress in Core5 and achieving proficiency on reading assessments showed correlations across grades ranging from 0.3 to 0.7.
- **Significant effects of Core5 in comparison to alternative forms of classroom instruction.** Using Core5 had a greater impact on student performance than alternative forms of instruction. Effect sizes in studies of the current product ranged from 0.06 to 0.53.
- **Benefits of Core5 with different lengths of implementation.** Core5 contributed to reading gains in studies lasting one year and multiple school years, as well as half-year studies and studies of intensive summer programs.
- **Core5 to be effective for all students.** Core5 benefits students across all grades, regardless of race/ethnicity, English learner, or disability status.
- **Benefits of Differentiated Instruction in Core5.** Students with varying reading profiles benefited from differentiated instruction in Core5.

The studies summarized in the tables below provide a rich evidence base establishing the efficacy of Core5. Included are over 50 studies spanning more than 15 years of research. The portfolio contains early studies on precursors to Core5 – such as Lexia Early Reading and Lexia Primary Reading – together with more recent studies on Core5. We consider studies on precursor products to demonstrate an initial rationale that Core5 would be effective for students. Twenty of the studies on Core5 are published in peer-reviewed, scientific journals. Of these published studies, five meet the highest standards of strong evidence for an educational intervention described by the federal *Every Student Succeeds Act*.

**50+ Studies**

**More than 15**

**Years of**

**Research**

## Peer-Reviewed Publications

Lexia regularly submits its studies for peer-review. The peer-review process subjects Lexia's research studies and findings to the scrutiny of other experts in the same field (peers). This process is considered necessary to ensure academic scientific quality. As of July 2023, there are 20 peer-reviewed scientific studies of Core5, all listed below.

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">1</a>	2022	Strong	0.24	K-5	155	Struggling Students
<a href="#">2</a>	2022	Strong	-	1-4	96	Struggling Students
<a href="#">3</a>	2020	Moderate	0.09	K-5	3,721	Hispanic Students
<a href="#">4</a>	2020	Moderate	-	K-1	593	Hispanic Students
<a href="#">5</a>	2019	Rationale	-	K-2	68	-
<a href="#">6</a>	2019	Rationale	-	K-3	63	-
<a href="#">7</a>	2019	Rationale	-	3	1,119	-
<a href="#">8</a>	2018	Rationale	-	K	18	-
<a href="#">9</a>	2018	Rationale	-	K-5	884	Emergent Bilinguals
<a href="#">10</a>	2017	Promising	-	K-5	641	Emergent Bilinguals
<a href="#">11</a>	2016	Strong	0.06, 0.07	PreK-K	98	Struggling Students
<a href="#">12</a>	2016	Promising	0.31-1.10	2-7	30	Struggling Students
<a href="#">13</a>	2016	Strong	0.23	2	74	Emergent Bilinguals
<a href="#">14</a>	2015	Strong	0.53	1-2	83	Emergent Bilinguals
<a href="#">15</a>	2012	Rationale	0.41	1	106	Struggling Students
<a href="#">16</a>	2012	Rationale	-	1	28	Emergent Bilinguals
<a href="#">17</a>	2011	Rationale	0.64-1.02	PreK-K	104	Struggling Students
<a href="#">18</a>	2011	Rationale	0.61, 0.69	K	66	Emergent Bilinguals
<a href="#">19</a>	2008	Rationale	0.48, 0.53	K	71	-
<a href="#">20</a>	2006	Rationale	0.62	1	167	Struggling Students

## External Evaluations

Core5 has been evaluated by external researchers unaffiliated with Lexia Learning. Core5 has been reviewed by the independent research review organizations Evidence for ESSA and the National Center on Intensive Interventions at the American Institutes for Research.



Core5 has also been independently evaluated and endorsed by the Council of Administrators of Special Education. Since 2013, Core5 has undergone a rigorous review process every three years to maintain this endorsement.



Independent researchers have also evaluated the effectiveness of Core5. These evaluations have been conducted by graduate students as part of their doctoral dissertations or commissioned by states or other organizations. These research studies – summarized in the following tables – provide independent, third-party confirmation that Core5 is an effective program.

## Doctoral Dissertations

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">21</a>	2022	Rationale	-	3-5	613	Struggling Students
<a href="#">22</a>	2021	Rationale	-	1-2	42	Struggling Students
<a href="#">23</a>	2020	Moderate	0.48, 0.51	K	751	-
<a href="#">24</a>	2018	Promising	-	2-4	2,514	Emerging Bilinguals
<a href="#">25</a>	2018	Rationale	0.18	2	3,532	-
<a href="#">26</a>	2018	Rationale	-	4	75	Struggling Students
<a href="#">27</a>	2016	Rationale	-	2-6	241	Emergent Bilinguals
<a href="#">28</a>	2016	Rationale	-	1-2	43	Emergent Bilinguals
<a href="#">29</a>	2016	Rationale	-	1-3	477	-

## Third-Party Evaluations

#	Year (Location)	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">30</a>	2021 (UK)	Strong	0.08, 0.18	1	697	Struggling Students
<a href="#">31</a>	2020 (UT)	Moderate	0.07-0.33	K-3	95,639	-
<a href="#">32</a>	2019 (UT)	Moderate	0.07, 0.15	K-3	65,109	-
<a href="#">33</a>	2018 (UT)	Moderate	0.08, 0.15	K-3	52,807	-
<a href="#">34</a>	2017 (UT)	Moderate	0.12, 0.28	K-3	40,308	-
<a href="#">35</a>	2016 (IL)	Moderate	-	3-5	443	-
<a href="#">36</a>	2016 (UT)	Moderate	0.11, 0.43	K-3	17,346	-
<a href="#">37</a>	2015 (IL)	Moderate	-	3-5	1,038	-

## Internal Research and Reports

Lexia regularly publishes the results from internal studies to communicate the impact of Core5 to the public. State impact reports compare learning outcomes for schools that purchase Core5 within a state to schools that did not purchase Core5. Research briefs are short, accessible reports that provide relevant details about the research studies, focusing on key findings. These briefs are often released before full-length manuscripts are published with results from the research study. "Validity reports" present correlations between students' progress in Core5 and scores on established external assessments. This evidence, known as test-criterion validity, demonstrates that progress in Core5 can appropriately serve as a measure of progress towards important criterion goals such as achieving proficiency on state assessments.

### State Impact Reports

#	Year (State)	ESSA Tier	Lexia School Point Difference	Grades	# Schools
<a href="#">38</a>	2022 (CA)	Moderate	+7	3	1,447

## Research Briefs

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">39</a>	2021	Promising	-	K-5	12,965	-
<a href="#">40</a>	2020	Strong	-	3	50	Emergent Bilinguals
<a href="#">41</a>	2019	Rationale	-	K-2	175	Emergent Bilinguals
<a href="#">42</a>	2018	Rationale	-	4-5	78	Hispanic Students
<a href="#">43</a>	2017	Rationale	-	3	126	Emergent Bilinguals
<a href="#">44</a>	2016	Rationale	-	K	165	Emergent Bilinguals
<a href="#">45</a>	2015	Moderate	-	K-5	2,012	-
<a href="#">46</a>	2015	Moderate	-	K-4	368	-
<a href="#">47</a>	2015	Rationale	-	3-5	267	-
<a href="#">48</a>	2014	Moderate	-	K-5	638	-
<a href="#">49</a>	2014	Rationale	-	2-5	1,148	Struggling Students

## Validity Reports

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">50</a>	2017	Rationale	-	K-5	3,453	-
<a href="#">51</a>	2017	Rationale	-	3-5	553	-
<a href="#">52</a>	2017	Rationale	-	3-5	5,192	-
<a href="#">53</a>	2017	Rationale	-	1-5	1,809	-
<a href="#">54</a>	2017	Rationale	-	K-5	10,458	-
<a href="#">55</a>	2017	Rationale	-	K-5	4,610	-

The 55 research studies summarized in the above tables constitute the evidence base for Core5, providing robust and diverse evidence that Core5 is effective at improving literacy outcomes for all students. The remainder of this document provides detailed information about each study, including links to the original publications where available. As additional evidence of the effectiveness of Core5 becomes available, this document will be updated.





## Educational Technology in Support of Students with Reading or Language-Based Disabilities: A Cluster Randomized Control Trial

# Schools	5
# Students	155
Assessment	MAP Growth Reading
Duration	School Year
Effect Size	0.24
ESSA Tier	Level 1 (Strong) - Experimental
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Illinois
Targeted Demographics	Struggling Students
Year	2022

This study examined how well Lexia Core5 Reading could be used to enhance reading gains in students receiving special education support for reading difficulties. Students in the study attended 5 elementary schools in the same district. At the beginning of the study, 3 schools (65 students) were randomly assigned to use Core5 during supplemental reading instruction, while 2 schools (50 students) were placed in a control group and delivered instruction without Core5. In the fall students in Core5 schools and control students earned similar MAP scores. Only about 1 in 10 students were reading proficiently. *In the spring Core5 users earned significantly higher MAP scores than control students.* The proportion of proficient readers in the control group remained fairly constant from fall to spring. In contrast, about 1 in 3 Core5 users earned proficient scores in the spring – a 20% increase over the course of the year. *In the spring Core5 users were twice as likely to be proficient readers than control students.* Previous research found that the average reading intervention for students with learning disabilities had an effect size of 0.14. The effect size in this study was 0.24. Core5 was 64% more effective than comparable programs.



# Schools	2
# Students	96
Assessments	Woodcock–Johnson IV Tests of Achievement COMPefficiency, ReadingCBM
Duration	School Year
Effect Size	-
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	External Researchers
Grades	1 – 4
Program	Core5 Reading
State	-
Targeted Demographics	Struggling Students
Year	2022

This study used a randomized experimental design to assess the effectiveness and efficiency of two integrated learning systems (ILSs) – Lexia Core5 Reading and iStation. Two schools participated in this study, with one ILS assigned to each school. Within each school, 24 students were randomly assigned to use the ILS and 24 to a business-as-usual (BAU) condition. Students in the study were identified as at-risk for reading failure. Effectiveness of the ILSs was assessed using subtests from Woodcock–Johnson IV Tests of Achievement and performance on the COMPefficiency and readingCBM. Efficiency was measured in terms of “minutes of instructional time per student” to implement each ILS and BAU condition. In terms of effectiveness, both ILSs resulted in significant reading growth over the school year, although generally no more so than the BAU condition. In contrast, clear differences were reported for instructional efficiency. *Core5 required less than half the amount of time to implement (155 minutes per student) than iStation (414 minutes per student).* Instructional time for iStation was similar to the BAU conditions. The findings of this study show that Core5 and iStation led to comparable reading growth, but Core5 required much less instructional time to implement than iStation.



## An Investigation of Blended Learning to Support Reading Instruction in Elementary Schools

# Schools	6
# Students	3,721
Assessment	MAP Growth Reading
Duration	School Year
Effect Size	0.09
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Florida
Targeted Demographics	Hispanic Students
Year	2020

This large-scale study examined the benefits of Lexia Core5 Reading for students in kindergarten through grade 5 within a charter school network. More than 50% of the students in the study were Hispanic. Three schools in the network agreed to be part of the treatment group. Administrators in these schools were concerned about the reading levels of their students and thus chose to adopt Core5 for use during the school year. Treatment students were compared to students in three control schools with similar demographic characteristics as the treatment students. Core5 was not adopted in the control schools. Instead, the standard form of instruction was maintained. Prior to implementation of Core5, treatment students performed significantly below control students on the MAP Reading Test. *At the end of study, treatment students showed significantly greater gains on the MAP than control students*, and the pretest difference between treatment and control students disappeared. The effect size for this comparison was 0.09. It was also found that *gains on the MAP were not significantly different across grades and ethnicities*. These outcomes point to the viability of using Core5 with students in different grades and ethnic backgrounds.



## Measuring the Impact of a Blended Learning Model on Early Literacy Growth

# Schools	4
# Students	593
Assessment	University of Oregon DIBELS Next
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-1
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Hispanic Students
Year	2020

This study examined the benefits of Lexia Core5 Reading for students in kindergarten and grade 1 in an urban school district. Nearly 50% of the students in the study were Hispanic. Students in the two treatment schools used Lexia Core5 Reading during the school year while students in the two control schools engaged in classroom instruction without Core5. Based on classroom observations, an experienced educator rated the quality of instruction similarly across treatment and control schools. Students were tested with DIBELS Next at beginning and end of the school year. Given wide differences between schools in pretest DIBELS Next scores, propensity score analyses were used in this study. It was found that *Core5 students outperformed control students at posttest and the discrepancy between groups was larger for students with low pretest scores*. When comparing two hypothetical students with the same below average pretest scores, the Core5 student was projected to score 29 points higher at posttest than their control group counterpart. These outcomes point to the value of using Core5 for reading instruction in early elementary grades.



## Three-Year Longitudinal Study: Impact of a Blended Learning Program – Lexia Core5 Reading – on Reading Gains in Low SES Kindergarteners

# Schools	1
# Students	68
Assessment	Pearson GRADE
Duration	3 Years
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-2
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	-
Year	2019

This three-year longitudinal study tracked the reading performance of 68 kindergarten students from a low SES school district. These students received instruction with *Lexia Core5 Reading* from the start of kindergarten through second grade. During each school year the students made significant gains on the GRADE – a standardized reading assessment. However, their performance declined from spring of one school year to fall of the next, indicative of a summer slide. Further comparisons revealed that *performance from the fall of one school year to the fall of the next showed significant improvement, pointing to the benefits of Core5 instruction to help overcome the summer slide*. In fact, 91% of the students who started kindergarten scoring below the average range on the GRADE finished second grade scoring in the average range or above. These results demonstrated the value of Core5 use over multiple years to support reading growth in students from a low SES background.



# Schools	1
# Students	63
Assessment	Pearson GRADE
Duration	4 Years
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-3
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	-
Year	2019

This four-year longitudinal study tracked the reading performance of 63 kindergarten students from a low SES school district. These students received instruction with *Lexia Core5 Reading* from the start of kindergarten through grade 3. All students met minimum usage requirements in the first three years of the study, and 97% met minimal requirements in year 4. Strong implementation contributed to solid reading gains. A comparison of fall and spring means on the GRADE – a standardized reading assessment – showed significant gains during kindergarten, grade 1, and grade 2. Performance leveled off in grade 3. A further year-over-year comparison of fall means revealed long-term benefits of *Core5*. It was found that the fall mean in grade 3 (102.40) was significantly higher than the fall mean in kindergarten (90.47) and grade 1 (96.77). In fact, the fall mean in grade 3 fell above the national average (100.0). This study showed that *strong, consistent implementation of Core5 resulted in long-term benefits* for these students.



## Can Educational Technology Effectively Differentiate Instruction for Reader Profiles?

# Schools	-
# Students	1,119
Assessment	Pearson aimsweb
Duration	1 Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	3
Program	Core5 Reading
State	Kansas
Targeted Demographics	-
Year	2019

This study investigated how well Lexia Core5 Reading can differentiate instruction for students with various reader profiles. Based on a standardized reading assessment – aimsweb – students were classified into four profiles: poor decoders, poor comprehenders, mixed deficits, and typical readers. There are three modes of instruction in Core5: standard, guided practice, and direct instruction. Core5 was effective in differentiating instruction and helping to improve aimsweb scores. Compared to typical readers, poor decoders were significantly slower in guided practice for the word reading domain and poor comprehenders had significantly lower standard mode accuracy in the comprehension domain. Students showed improvements on aimsweb in areas aligned with their deficits. Poor decoders improved from 18th to 31st percentile in oral word reading fluency, and poor comprehenders advanced from 13th to 36th percentile in reading comprehension. These outcomes showed that *Core5 can provide differentiated instruction for students with various reader profiles.*



## The Impact of Lexia Reading Program on Early Childhood Literacy: A Case Study of Kindergarten Students

# Schools	1
# Students	18
Assessment	Progress in Core5
Duration	Half Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	K
Program	Core5 Reading
State	-
Targeted Demographics	-
Year	2018

This study describes the in-program progress made by a classroom of kindergarten students using *Lexia Core5 Reading* for half a school year. There were 4 students who started at a preschool level, and they all advanced to a kindergarten level. Of the 14 students who started at a kindergarten level, 4 moved up to a first-grade level. Two of the students had their *Core5* progress analyzed in detail. They both started at a preschool level. One of them progressed smoothly to kindergarten levels just with practice and online instruction, while the other struggled greatly and took much longer to advance out of a preschool level. It was emphasized that *teacher-led instruction - including Lexia Lessons - is essential for students who struggle to advance through the program.*





## Efficacy of a Blended Learning Approach in Elementary School Reading Instruction for Students who are English Learners

# Schools	-
# Students	884
Assessment	Pearson aimsweb
Duration	2 Years
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Kansas
Targeted Demographics	Emergent Bilinguals
Year	2018

This study examined whether Lexia Core5 Reading can support reading development for English Learners (ELs) in kindergarten through grade 5. The study was based on the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. ELs were compared to non-ELs matched on grade level, beginning-of-year aimsweb tier status and placement level in Core5. After year 1, both groups showed significant gains on aimsweb with no differences between groups for kindergarten, and grades 2 through 5. In grade 1, ELs outperformed non-ELs. For students who continued using Core5 in year 2, ELs and non-ELs showed similar advances in aimsweb tier status. Notable reductions in percentage of students identified as at-risk for reading failure were found in both EL and non-EL groups. These findings show that *Core5 can support reading development for ELs in kindergarten through grade 5.*



## Elementary School-wide Implementation of a Blended Learning Program for Reading Intervention

# Schools	1
# Students	641
Assessment	Pearson GRADE
Duration	School Year
Effect Size	-
ESSA Tier	Level 3 (Promising) – Correlational
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2017

This study investigated the extent to which Lexia Core5 Reading can provide school-wide benefits for students in kindergarten through fifth grade in a low SES district. An examination of differences in pretest and posttest scores on the GRADE – a standardized reading assessment – revealed *significant gains for students in five of the six grades*. In general, gains were more pronounced for students in kindergarten through second grade than students in later grades. *In each grade, the extent of reading gains was uniform across students who were English Learners and non-English Learners*. Progress in the online component of Core5 was a significant predictor of gains on the GRADE when controlling for student grade, initial skill level, and English Learner status. These results indicated clear benefits of Core5, especially when beginning instruction in the early grades.



## A Randomized Controlled Trial of an Early Intervention, Computer-Based Literacy Program to Boost Phonological Skills in 4- to 6-Year Old Children

# Schools	2
# Students	98
Assessment	GL Assessment PhAB-2
Duration	8 Weeks
Effect Size	0.06, 0.07
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	External Researchers
Grades	PreK-K
Program	Core5 Reading
State	-
Targeted Demographics	Struggling Students
Year	2016

This study evaluated the effectiveness of Lexia Core5 Reading for 4- to 6-year-old students in Northern Ireland. The students were selected for the intervention because they scored in the low average or below average range on one or more tests of the Phonological Assessment Battery (PhAB-2). The age group is equivalent to pre-kindergarten and kindergarten in the United States. Students were randomly assigned to use Core5 for 8 weeks or to a waitlist control group. Analyses showed that *Core5 students evinced significantly greater gains than control students on tests of sound blending and nonword reading*. Effect sizes were 0.06 and 0.07 for blending and nonword reading, respectively. Gains were maintained for 2-months following the intervention.



## Phonics Training Improves Reading in Children with Neurofibromatosis Type 1: A Prospective Intervention Trial

# Schools	-
# Students	30
Assessment	Castles and Coltheart 2 Reading Test, Test of Word Reading Efficiency, Test of Everyday Reading Comprehension
Duration	8 Weeks
Effect Size	0.31–1.10
ESSA Tier	Level 3 (Promising) – Correlational
Evaluators	External Researchers
Grades	2–7
Program	Core5 Reading
State	-
Targeted Demographics	Struggling Students
Year	2016

This clinical study examined the efficacy of Lexia Core5 Reading to help improve reading skills in children with neurofibromatosis type 1 (NF1). Children with NF1 often show cognitive impairments including reading difficulties. This study utilized a double-baseline design. Children used Core5 daily at home for 8 weeks. Literacy measures were assessed at 4 time points: (1) 8 weeks before treatment, (2) just prior to treatment, (3) right after treatment, and (4) 8 weeks after treatment. Performance on key literacy measures remained stable prior to treatment (time point 1 to time point 2). Significant improvement was found after treatment (time point 2 to time point 3) across a range of measures, including letter-sound knowledge, phonemic decoding fluency, nonword reading, regular word reading, and reading comprehension. Improvements were maintained 8 weeks after treatment. Overall, *Core5 was effective in improving reading skills in children with NF1.*



# Schools	1
# Students	74
Assessment	University of Oregon DIBELS Next
Duration	Half Year
Effect Size	0.23
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	Lexia Researchers
Grades	2
Program	Core5 Reading
State	California
Targeted Demographics	Emergent Bilinguals
Year	2016

This study explored the benefits of using Lexia Core5 Reading with second grade students in a low-SES school district. Three classes in the same school participated in the study. Two classes were randomly assigned to use Core5 during the second half of the school year and the third class served as a control class. The two groups showed no significant differences on the DIBELS® Next reading assessment at pretest. However, Core5 students outperformed the control group at posttest. Analyses revealed *significantly greater gains for the Core5 group than the control group*. The effect size for this comparison was 0.23. Looking at changes in pretest-to-posttest Instructional Categories on DIBELS Next, 27% of students in Core5 classes demonstrated advancements in Instructional Categories, whereas none of the control students advanced.



## Exploration of a Blended Learning Approach to Reading Instruction for Low SES Students in Early Elementary Grades

# Schools	1
# Students	83
Assessment	Pearson GRADE
Duration	School Year
Effect Size	0.53
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	Lexia Research
Grades	1-2
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2015

This study investigated the benefits of using Lexia Core5 Reading with students in grades 1 and 2 from a low SES school. Comparisons were made between students in treatment classes who used Core5 and students in control classes without access to Core5. Classes in each grade were randomly assigned to the treatment or control group. Results showed significantly greater Total Test score gains on the GRADE for the treatment group over the control group. The effect size for this comparison was 0.53. The greatest discrepancy between groups occurred in the reading comprehension domain. A sub-analysis of low performing English Learners in the treatment group revealed the largest reading gains. At posttest, these students performed at the level of non-English Learners in the control group. These outcomes show that *Core5 can be effective in enhancing the reading skills of low SES students.*



## An Evaluation of the Use of Lexia Reading Software with Children in Year 3, Northern Ireland (6- to 7-Year Olds)

# Schools	4
# Students	106
Assessment	GL Assessment Group Reading Test
Duration	School Year
Effect Size	0.41
ESSA Tier	Level 4 – Demonstrates a Rationale
Evaluators	External Researchers
Grades	1
Program	Lexia Reading
State	-
Targeted Demographics	Struggling Students
Year	2012

This study evaluated the effectiveness of Lexia programs for 6- to 7-year-old students in Northern Ireland. The age group is equivalent to first grade in the United States. Comparisons were made between treatment students who used a precursor to Lexia Core5 Reading – called Lexia Reading – and control students not given access to Lexia programs. Both groups contained students deemed eligible for reading intervention based on obtaining low scores on the Group Reading Test and/or demonstrating a profile consistent with dyslexia. Analyses revealed that *treatment students showed significantly greater gains on the Group Reading Test than control students*. Effect size for this comparison was 0.41.



## Using Primary Language Support via Computer to Improve Reading Comprehension Skills of First Grade English Language Learners

# Schools	1
# Students	28
Assessment	University of Oregon DIBELS, Woodcock Munoz Language Survey-R
Duration	8 Weeks
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	1
Program	Lexia Primary Reading
State	-
Targeted Demographics	Emergent Bilinguals
Year	2012

This study investigated the effectiveness of Lexia programs to provide primary language support to English Learners. Comparisons were made between students using a precursor to Lexia Core5 Reading – called Lexia Primary Reading – with oral instructions in Spanish versus oral instructions in English. Participants were first graders whose primary language was Spanish. Both groups used the Lexia program for eight weeks and showed significant growth on measures of fluency, word reading, and passage comprehension. There were no significant difference between groups in fluency or word reading. However, *English Learners who received Spanish language support had significantly higher scores in reading comprehension.*





# Schools	3
# Students	104
Assessment	Pearson GRADE
Duration	School Year
Effect Size	0.64-1.02
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	PreK-K
Program	Lexia Early Reading, Lexia Primary Reading
State	Massachusetts
Targeted Demographics	Struggling Students
Year	2011

This study investigated whether Lexia programs can provide benefits for low-performing pre-kindergarteners and kindergartners in an urban school district. Students were identified as low performers based on fall pretest scores on the GRADE. Comparisons were made between students in treatment classes who used precursors to Lexia Core5 Reading – called Early Reading and Primary Reading – and students in control classes without access to Lexia programs. Treatment and control classes were in different schools in the same district. Students in both treatment and control groups showed gains. However, preschoolers had significant differences favoring the treatment group on Total Test scores and in the Phonological Awareness domain. Effect sizes for these comparisons were .69 and 1.02, respectively. For kindergarteners, students in treatment classes showed significantly greater gains on Total Test scores and a separate Word Reading subtest. Effect sizes for these comparisons were 0.64 and 0.85, respectively. The fact that both groups made large gains revealed that the district’s reading curriculum was highly effective. *The larger gains in the treatment group can be attributed to the benefits of Lexia programs to support preliteracy skills in young children.*



## Benefits of Computer-Assisted Instruction to Support Reading Acquisition in English Language Learners

# Schools	1
# Students	66
Assessment	Pearson GRADE
Duration	School Year
Effect Size	0.61, 0.69
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K
Program	Lexia Early Reading, Lexia Primary Reading
State	Texas
Targeted Demographics	Emergent Bilinguals
Year	2011

This study examined whether Lexia programs can benefit English Learners enrolled in bilingual kindergarten classes. Comparisons were made between a treatment group that used precursors to Lexia Core5 Reading – called Early Reading and Primary Reading – and a control group that received the same classroom instruction without access to Lexia programs. Classes were randomly assigned to treatment and control groups. Analyses revealed significantly greater gains for the treatment group compared to the control group in the domains of Phonological Awareness and Word Reading on the GRADE. The effect sizes were 0.69 and 0.61, respectively. A sub-analysis of low performers (scored below the 25th percentile at pretest) showed similar outcomes as the full groups. These results showed that *Lexia programs can support reading acquisition in English Learners and can serve as an effective intervention for low performers.*



# Schools	2
# Students	71
Assessment	University of Oregon DIBELS, My Learning Springboard GMRT
Duration	School Year
Effect Size	0.48, 0.53
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K
Program	Lexia Early Reading
State	Massachusetts
Targeted Demographics	-
Year	2008

This study examined the extent to which Lexia programs can benefit kindergartners in an urban school district. Comparisons were made between students who used a precursor to Lexia Core5 Reading – called Early Reading – and students in matched classes but without Lexia programs. Matched classes consisted of a morning class and an afternoon class taught by the same teacher. One class for each teacher was randomly assigned to the treatment group and the other class was a control class. The treatment and control groups did not differ at pretest on DIBELS. However, significant group differences were obtained at posttest on Gates-MacGinitie Reading Test (GMRT) in overall NCE scores and Oral Language Concepts. Effect sizes for these two comparisons were 0.48 and 0.53, respectively. These outcomes showed that *Lexia programs provided solid benefits for kindergartners.*



## The Efficacy of Computer-Based Supplementary Phonics Programs for Advancing Reading Skills in At-Risk Elementary Schools

# Schools	5
# Students	167
Assessment	My Learning Springboard GMRT
Duration	School Year
Effect Size	0.62
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	1
Program	Phonics Based Reading, Strategies for Older Students
State	Massachusetts
Targeted Demographics	Struggling Students
Year	2006

This study examined whether Lexia programs can be beneficial for first-grade students in an urban school district. Comparisons were made between students who used precursors to Lexia Core5 Reading – called Phonics Based Reading and Strategies for Older Students – and control students who received the same classroom instruction without Lexia programs. Classes were randomly assigned to treatment and control groups. Initial results showed that both treatment and control students made significant reading gains on the Gates-MacGinitie Reading Test (GMRT) over the school year. Post-test scores of children in the treatment group were slightly (though not significantly) greater than the post-test scores of control students. *When analyses were restricted to low-performing students eligible for Title I services, significantly higher scores were obtained by the treatment group than the control group.* The effect size was 0.62 for this comparison. At post-test Title I students in the treatment group performed at levels similar to non-Title I students.



## A Causal Comparative Study of the Supplemental Lexia Core5 Reading Computer-Assisted Instruction Program Intervention for Improving the Reading Achievement of Elementary School Students with Disabilities

# Schools	8
# Students	613
Assessment	Georgia Milestones Assessment System (GMAS)
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	3-5
Program	Core5 Reading
State	Georgia
Targeted Demographics	Struggling Students
Year	2022

This study looked at the effects of using Lexia Core5 Reading as a supplement to an English Language Arts (ELA) curriculum for elementary school students with disabilities. The students had a wide range of disabilities including specific learning disability, intellectual disability, autism spectrum disorder and emotional disturbance. These students were compared to control students who had similar types of disabilities but attending schools in which Core5 was not part of their curriculum. The Georgia Milestones Assessment System (GMAS) ELA End-of-Grade assessment was used as the outcome measure. Chi-square analyses revealed a *significantly higher proportion of Core5 students at the Proficient/Distinguished and Developing levels and a significantly lower proportion at the Beginning level on the GMAS compared to control students*. These differences were found for students aggregated across grades and when results were analyzed separately by grade.



## The Impact of the Response to Intervention Lexia Reading Program on the Academic Performance of 2<sup>nd</sup> Grade Students

# Schools	1
# Students	42
Assessment	Renaissance Star Reading
Duration	School Year plus 5 Months
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	1-2
Program	Core5 Reading
State	Georgia
Targeted Demographics	Struggling Students
Year	2021

The aim of this study was to examine whether use of Lexia Core5 Reading that spans more than one school year contributes to significant reading gains. Students in the study used Core5 throughout grade 1 and the beginning of grade 2. The amount of online program use was strong – an average of 88 minutes per week. To address reading gains, Star Reading Assessment was administered four times in grade 1 and two times at the beginning of grade 2. The main finding was significant reading gains occurred across the six time periods. Subsequent analyses showed that the degree of reading gains did not differ for male and female students, nor did it differ for students classified as low, middle, or high performers. *Core5 was shown to have a positive effect on reading performance for students using the program across more than one school year*, and the program was equally effective for both male and female students and students at differing reading levels.



## Addressing Literacy Skills in Kindergarteners in Alaska: An Evaluation of Lexia Reading Core5

# Schools	15
# Students	751
Assessment	Pearson aimsweb, NWEA MAP K-2 Early Literacy
Duration	School Year
Effect Size	0.48, 0.51
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K
Program	Core5 Reading
State	Alaska
Targeted Demographics	-
Year	2020

This study used a quasi-experimental, non-equivalent control group design to evaluate the benefits of Lexia Core5 Reading on developing early literacy skills in kindergarten students. The sample consisted of 751 students attending 15 schools in the same district. Schools in the district used Core5 to varying degrees. Students were divided into groups based on amount of Core5 use in the school year. Students in the treatment group used Core5 for at least 20 weeks and met weekly recommended minutes for at least 10 weeks. Students in the partial treatment group used the program for 50% or less of the recommended usage time, and students in the control group never used Core5. The three groups did not show any differences on pretest measures. Following Core5 use, all three groups demonstrated pretest-posttest gains on aimsweb, Letter Name Fluency (LNF), and Letter Sound Fluency (LSF); however, *gains made by the treatment and partial treatment groups were significantly higher than the control group*. All three groups also made gains on MAP K-2 Early Literacy; in this case, no group differences in gains were found. End-of-year Core5 levels correlated with benchmark scores on LNF, LSF and MAP K-2 Early Literacy probes. Overall, these findings suggest that Core5 is an effective program to use in a kindergarten curriculum.



## Leading for Literacy: Lexia Reading Core5 and the Association with Oral Reading Fluency in Title 1 Schools

# Schools	9
# Students	2,514
Assessment	Formative Assessment System for Teachers (FAST)
Duration	School Year
Effect Size	-
ESSA Tier	Level 3 (Promising) – Correlational
Evaluators	External Researchers
Grades	2-4
Program	Core5 Reading
State	Iowa
Targeted Demographics	Emergent Bilinguals
Year	2018

This report examines the relationship between student performance in Lexia Core5 Reading and changes in oral reading fluency rates on the FAST Curriculum–Based Measure for Reading. The FAST was administered to 2,514 students in grades 2-4 in fall and spring of the school year. Regression analyses examined the relationship between two Core5 measures – average minutes using the program and changes in Predictor scores from fall to spring – and student growth in oral reading fluency on the FAST. *The two Core5 measures were statistically significant and explained 12.4% of the variance in student growth in oral reading fluency.* The relationship between performance in Core5 and oral reading fluency held across various demographic groups, including students from low SES backgrounds, Hispanic students, and Emergent Bilinguals.





## How Teachers May Influence the Impact of Computer Adaptive Instruction: A Mixed-Methods Analysis of Implementing Lexia Core5 in Second-Grade Classrooms

# Schools	14
# Students	3,532
Assessment	Renaissance Star Reading
Duration	School Year
Effect Size	0.18
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	2
Program	Core5 Reading
State	Idaho
Targeted Demographics	-
Year	2018

This mixed-methods study examined the effectiveness of Lexia Core5 Reading by comparing the reading gains of students who used Core5 with the gains made by control students who attended the same schools in three previous school years but did not use Core5. Comparisons were based on scores from STAR given to students in grade 2. Quantitative results showed that *students who used Core5 with fidelity had significantly higher percentile gains (15.5) than control students (12.1). This reflects a 28% greater gain in percentile scores for Core5 students than control students.* The effect size for this difference was 0.18. In the qualitative analysis, teachers with students who had exceptionally high reading gains reported that they frequently monitored students' progress using the reports provided in Core5, used the program to differentiate reading interventions, publicly celebrated students' achievements in Core5, and collaborated as grade-level teams to provide more intensive interventions when necessary.



## Impact of Research-Based Literacy Programs used for Response to Intervention (RTI) in Tennessee Fourth-Grade English Language Arts (ELA) Students

# Schools	1
# Students	75
Assessment	Pearson aimsweb
Duration	12 weeks
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	4
Program	Core5 Reading
State	Tennessee
Targeted Demographics	Struggling Students
Year	2018

The goal of this study was to determine the extent to which Response to Intervention (RTI) programs can elevate reading scores in fourth-grade students receiving Tier II instruction. The students were taught in one of four intervention programs and compared to Tier I control students. One of the intervention programs was Lexia Core5 Reading. Teachers identified students who scored below the 25th percentile on Oral Reading and MAZE subtests of aimsweb and assigned them to one of the intervention programs. After a 12-week intervention period, gain scores on aimsweb were analyzed. Results showed that the *difference in gain scores between Core5 and control students approached statistical significance* and that Core5 gain scores were second highest among the RTI programs.



# Schools	3
# Students	241
Assessment	Renaissance Star Reading
Duration	6 weeks in summer
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	2-6
Program	Core5 Reading
State	California
Targeted Demographics	Emergent Bilinguals
Year	2016

This study analyzed the effects of three software programs designed to increase literacy levels for students in grades 2-6 attending a six-week summer school session. One of the programs was Lexia Core5 Reading. A non-reading program was also used with students in grades 4-6 to assess changes in growth mindset. Three elementary schools with high percentages of English Learners (ELs) were included in the study. Each school received a different reading software program. ELs who did not make one level of growth on the California English Language Development Test during the school year were invited to attend the summer session. Star Reading was used to assess reading gains, and the Mind Assessment Profile examined changes in growth mindset. Following the summer session, Lexile gains on Star Reading were statistically significant for students receiving Core5 as well as the other programs. The *mean Lexile gain for Core5 was 60.57*. In addition, students increased their growth mindset as evidenced by scores on the Mind Assessment Profile. The study concluded that ELs benefited from the summer school session.



## Early Reading Skills in Low Socioeconomic Status At-risk English Language Learners: Effects of Multisensory Structured Language Intervention

# Schools	1
# Students	43
Assessment	Test of Word Reading Efficiency 2 (TOWRE-2), Clinical Evaluation of Language Fundamentals 4 (CELF-4), Woodcock Reading Mastery Test III (WRMT-III)
Duration	8 Weeks
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	1-2
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2016

This study asked if an 8-week multisensory structured language (MSL) intervention which included Lexia Core5 could help English Language Learners (ELLs) from low socioeconomic backgrounds improve their reading skills. The intervention was offered in an after-school enrichment program. Students were administered tests of decoding, listening comprehension, and reading comprehension before and after intervention. It was found that ELLs did not show significant gains in decoding (TOWRE-2: Phonemic Decoding Efficiency, Sight Word Efficiency) nor in listening comprehension (CELF-4: Understanding Spoken Paragraphs). These null outcomes were attributed to relatively high levels of performance prior to the intervention. *ELLs did show significant gains in reading comprehension (WRMT-III: Passage Comprehension)*. Similar outcomes were found for non-ELLs in the study. These findings suggest that adequate decoding and listening comprehension skills coupled with MSL intervention which includes Core5 can result in improved reading comprehension for at-risk ELLs.



## Lexia Core5's Impact on Phonemic Awareness, Phonics, Fluency, Vocabulary, and Comprehension

# Schools	1
# Students	477
Assessment	Renaissance Star Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	External Researchers
Grades	1-3
Program	Core5 Reading
State	Kansas
Targeted Demographics	-
Year	2016

This study examined whether students' usage of Lexia Core5 Reading was related to student gains in foundational reading skills. Students were enrolled in an elementary school that was part of the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. They were assessed with Star Early Literacy (grade 1) and Star Reading (grades 2 and 3) as pre- and posttests. Differences between pre- and post-test scores were used to show reading gains. *Significant gains were found in phonemic awareness, phonics, fluency, vocabulary, and comprehension in grade 1, and in phonics, fluency, vocabulary, and comprehension in grades 2 and 3.* Further, it was shown that students' Core5 log-in time was related to gain scores in four of five areas in grade 1, and in two of four areas in grade 2. Log-in time was unrelated to gain scores in grade 3. Overall, students who used Core5 showed significant reading gains across multiple skill areas, and log-in time was associated with these gains, particularly in grades 1 and 2.



# Schools	57
# Students	697
Assessment	Pearson Woodcock Reading Mastery Tests
Duration	12 – 24 Weeks
Effect Size	0.08, 0.18
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	External Researchers
Grade	1
Program	Core5 Reading
Country	England
Targeted Demographics	Struggling Students
Year	2021

This independent evaluation of Lexia Core5 Reading was sponsored by the Education Endowment Foundation. The study was a randomized control trial with randomization at individual student level within schools. Participants were students at the first-grade level identified by their school as being below average in reading ability. Half of the students were randomly assigned to use Core5, and the other half were control students who received regular instruction. Core5 was used four times per week with small groups of six to seven students. Outcomes were assessed with the Word Identification, Word Attack, Passage Comprehension, and Oral Reading Fluency subtests of the Woodcock Reading Mastery Tests (WRMT-III). Group comparisons showed a mean difference of 3.63 points in WRMT-III composite scores favoring Core5 students with an effect size of 0.08, reflecting approximately one month of additional reading progress for Core5 students. Similar outcomes were obtained when subtests were analyzed separately. *When analyses were restricted to students eligible for Free School Meals (FSM), Core5 students scored 9.47 points higher than control students on WRMT-III composite scores. This difference was statistically significant with an effect size of 0.18*, which corresponds to approximately 2 months of additional reading progress. Results of this study support the efficacy of Core5 for struggling readers, especially those eligible for FSM.



# Schools	313
# Students	95,639
Assessment	Acadience Reading
Duration	Half Year
Effect Size	0.07-0.33
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K-3
Program	Core5 Reading
State	Utah
Targeted Demographics	-
Year	2020

This study examined fifth year outcomes from the state of Utah’s initiative to supplement students’ learning with software reading programs. The Evaluation and Training Institute (ETI) served as an external evaluator, assessing the impact of the programs on student learning. The initiative included 573 schools, which selected among 4 reading programs. Lexia Core5 Reading was chosen by more schools (55%) than any other program. The study took place during the school year in which COVID-19 disrupted in-person learning. Thus, results were reported only for the first half of the year. Unlike previous Utah reports, ETI presented results aggregated across programs. To assess impact, ETI compared midyear Acadience Reading scores for students using the programs with matched students who were not part of the initiative. Statistically significant outcomes were obtained across grades. Effect sizes were 0.33, 0.13, 0.07 and 0.17 for kindergarten through grade 3, respectively. *Although results were based on aggregated samples, they largely reflected the impact of Core5. This stems from the fact that Core5 was used by far more students (95,639) than the other programs (range: 6152 – 38,966 students).* These findings highlighted the benefits of using Core5 even in the context of a half-year implementation.



# Schools	223
# Students	65,109
Assessment	Acadience Reading
Duration	School Year
Effect Size	0.07, 0.15
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K-3
Program	Core5 Reading
State	Utah
Targeted Demographics	-
Year	2019

This study examined fourth year outcomes from the state of Utah’s initiative to supplement students’ learning with software reading programs. The Evaluation and Training Institute (ETI) served as an external evaluator, assessing students’ usage of the programs and impact on learning. Results are based on 438 schools which selected among 4 reading programs. Lexia Core5 Reading was chosen by more schools (51%) and used by more students (65,109) than any other program. The percentage of Core5 students meeting minimum dosage requirements was 60% – the top value among programs. To assess impact, ETI compared Acadience Reading scores for students using the programs with matched students who were not part of initiative. *Core5 showed statistically significant outcomes in kindergarten and grade 3.* Effect sizes were 0.15 and 0.07, respectively.





# Schools	188
# Students	52,807
Assessment	University of Oregon DIBELS
Duration	School Year
Effect Size	0.08, 0.15
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K-3
Program	Core5 Reading
State	Utah
Targeted Demographics	-
Year	2018

This study examined third year outcomes from the state of Utah’s initiative to supplement students’ learning with software reading programs. The Evaluation and Training Institute (ETI) served as an external evaluator, assessing students’ usage of the programs and impact on learning. Results are based on 403 schools which selected among 7 reading programs. Lexia Core5 Reading was chosen by more schools (47%) and used by more students (52,807) than any other program. The percentage of Core5 students meeting minimum dosage requirements was 58% – the top value among programs. To assess impact, ETI compared DIBELS scores for students using the programs with matched students who were not part of initiative. *Core5 showed statistically significant outcomes in kindergarten and grade 1.* Effect sizes were 0.15 and 0.08, respectively.



# Schools	157
# Students	40,308
Assessment	University of Oregon DIBELS
Duration	School Year
Effect Size	0.12, 0.28
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K-3
Program	Core5 Reading
State	Utah
Targeted Demographics	-
Year	2017

This study examined second year outcomes from the state of Utah's initiative to supplement students' learning with software reading programs. The Evaluation and Training Institute (ETI) served as an external evaluator, assessing students' usage of the programs and impact on learning. Results are based on 388 schools which selected among 7 reading programs. Lexia Core5 Reading was chosen by more schools (40%) and used by more students (40,308) than any other program. The percentage of Core5 students with average weekly use meeting dosage recommendations was 52% – the highest value among programs. To assess impact, ETI compared DIBELS scores for students using the programs with matched students who were not part of initiative. *Core5 showed statistically significant outcomes in kindergarten and grade 1.* Effect sizes were 0.28 and 0.12, respectively.



# Schools	4
# Students	443
Assessment	NWEA Growth MAP Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	3-5
Program	Core5 Reading
State	Illinois
Targeted Demographics	-
Year	2016

This study examined the second year of outcomes from an initiative conducted by LEAP, a non-profit educational reform organization. LEAP launched the Pilot Network to provide Chicago schools an opportunity to use Edtech programs to implement personalized learning in their schools. The results in this report are based on 14 schools allowed to select among 16 reading and/or math programs. Lexia Core5 Reading was one of two reading programs selected by the schools. Core5 was chosen by four schools, and the other program was chosen by one school. The LEAP report shared findings from 443 students who used Core5 in grades 3-5. The researchers examined MAP reading scores for Core5 students compared to students in the same school district who did not use Core5. It was reported that *Core5 students showed a statistically significant, 11 percentage point advantage in reading scores above control students*. These findings point to clear benefits of Core5 within the LEAP Pilot Network.



# Schools	73
# Students	17,346
Assessment	University of Oregon DIBELS
Duration	School Year
Effect Size	0.11, 0.43
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	K-3
Program	Core5 Reading
State	Utah
Targeted Demographics	-
Year	2016

This study examined first year outcomes from the state of Utah’s initiative to supplement students’ learning with software reading programs. The Evaluation and Training Institute (ETI) served as an external evaluator, assessing students’ usage of the programs and impact on learning. Results are based on 388 schools which selected among 8 reading programs. Lexia Core5 Reading was chosen by 19% of schools – the second highest total. The percentage of Core5 students with average weekly use meeting dosage recommendations was 58% – the highest value among programs. Core5 was also the only program to show significant regression coefficients in kindergarten (0.22), grade 1 (0.78) and grade 2 (0.86) when weeks of use was used to predict DIBELS scores. To assess impact, ETI compared DIBELS scores for students using the programs with matched students who were not part of initiative. *Core5 showed statistically significant outcomes in kindergarten and grade 1.* Effect sizes were 0.43 and 0.11, respectively.



# Schools	12
# Students	1,038
Assessment	NWEA MAP Growth Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	External Researchers
Grades	3–5
Program	Core5 Reading
State	Illinois
Targeted Demographics	-
Year	2015

This study investigated outcomes from an initiative conducted by LEAP, a non-profit educational reform organization. LEAP launched the Pilot Network to provide Chicago schools an opportunity to use Edtech programs to implement personalized learning in their schools. The Network included 15 schools allowed to select among 6 reading programs. Only 4 programs were selected by the schools. Of these, Lexia Core5 Reading was chosen to be used in 63 classrooms with a total of 1,038 students. Analyses revealed Core5 was one of only two programs that showed a statistically significant impact on student learning. It was found that *use of Core5 resulted in a 1.42 point increase in MAP reading scores*. This outcome points to the benefits of Core5 use for students who took part in the LEAP Pilot Network.



# Schools	1,447
# Students	-
Assessment	Smarter Balanced English Language Arts
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	3
Program	Core5 Reading
State	California
Targeted Demographics	-
Year	2022

This study compared reading outcomes for California schools that used or did not use Lexia Core5 Reading during the 2020–21 school year. Analyses examined the scores of third grade students on the Smarter Balanced English Language Arts (SBAC) assessment. There were no meaningful differences in student characteristics between schools that did or did not use Core5. Schools that used Core5 were classified according to strength of program usage – percent of third grade students meeting their weekly usage targets in the program. Schools with more than 50% of students meeting Core5 usage targets were considered strong implementation schools. It was found that *schools with strong implementation scored 7 points higher and had 3% more students reach overall proficiency on the SBAC assessment than California schools that did not use Core5*. Similar patterns also emerged across the SBAC sub-domains: Reading, Writing, Listening, and Research. All outcomes were statistically significant. Results of this study provide moderate evidence that use of Core5 contributes to positive third-grade ELA learning outcomes in California schools.



## Using Lexia Core5 Reading to Address Learning Loss and Accelerate Learning: Insights from a 2020–21 Nationwide Study

# Schools	35
# Students	12,965
Assessment	NWEA MAP Growth Reading
Duration	Half Year
Effect Size	-
ESSA Tier	Level 3 (Promising) – Correlational
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	California, Michigan, North Carolina
Targeted Demographics	-
Year	2021

This large-scale study analyzed the extent to which Lexia Core5 Reading could be used to address pandemic-related learning loss and accelerate learning during the 2020–21 school year. All schools in the study administered the MAP Growth Reading assessment to students in Fall 2020 and Winter 2021. Students were identified as having “learning loss” if their Winter 2021 scores were 3 or more points lower than their Fall 2020 scores. Students were identified as having “accelerated learning” if their actual growth on MAP exceeded their projected growth targets. It was found that the more weeks students met Core5 usage targets, the less likely they experienced learning loss and more likely they showed accelerated learning. *Students who met Core5 usage targets for 12 weeks had an 82% probability of experiencing no learning loss, and a 42% probability of showing accelerated learning.* For both analyses there were no statistically significant differences in terms of students’ demographic characteristics or grade. These outcomes show that Core5 contributed to all students learning during pandemic-induced disruptions in 2020–21.



# Schools	-
# Students	50
Assessment	HMH Reading Inventory
Duration	Summer
Effect Size	-
ESSA Tier	Level 1 (Strong) – Experimental
Evaluators	Lexia Research
Grades	3
Program	Core5 Reading
State	California
Targeted Demographics	Emergent Bilinguals
Year	2020

This study examined whether use of Lexia Core5 Reading during the summer can provide benefits for English Learners. All students in the study completed third grade in an urban school district. Twelve students were randomly assigned to an 8-week intensive summer program. They were provided with iPads to work on Core5 activities at home. It was recommended that they spend at least 75-minutes per week on Core5. The remaining students served as a control group. It was found that *the reading gains made by students in the summer program were four times greater than gains made by students in the control group*. Outcomes of this study demonstrated the benefits of using Core5 as part of a summer program for English Learners.





## Impact of Core5 for Entering English Learners with Low English Proficiency

# Schools	1
# Students	175
Assessment	Pearson GRADE
Duration	2 Years
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-2
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2019

This study asked whether use of Lexia Core5 Reading could benefit English Learners (ELs) with the lowest English language skills. Nine ELs in kindergarten or grade 1 were selected based on obtaining scores at the lowest proficiency level (Level 1) on the WIDA assessment. These “Level 1 ELs” were compared to 16 ELs who scored at higher proficiency levels on the WIDA and 150 non-ELs. All students were taught in classes with Core5 serving as the primary form of reading instruction over two years. Level 1 ELs scored below the average range on the GRADE prior to Core5 use. After two years of Core5 use, their scores improved 19.3 standard score points, resulting in a mean score well within the average range. The mean gain score for Level 1 ELs (19.3) was larger than the mean gain score for ELs with higher proficiency levels (11.8) and the mean gain score made by non-ELs (12.6). These findings indicate that *use of Core5 can be quite beneficial for ELs with the lowest English language skills.*



# Schools	1
# Students	78
Assessment	Smarter Balanced ELA Assessment
Duration	3 months
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	4-5
Program	Core5 Reading
State	California
Targeted Demographics	Hispanic Students
Year	2018

This study examined whether Lexia Core5 Reading could support reading growth for students in a low SES school over a 3-month period of time. Student in grades 4-5 used the program from March to May. To assess reading growth, we examined students' scores on SBAC in the spring following Core5 use compared to the previous spring. Based on overall scores, SBAC assigns students to one of four proficiency levels: did not meet expectations, nearly met expectations, met expectations, and exceeded expectations. For this analysis, students who met or exceeded expectations were classified as Proficient, and students who nearly met or did not meet expectations were classified as Non-Proficient. In the year prior to Core5 use, only 35% of students were classified as Proficient. Following Core5 use, the percentage was 48%. The 13% increase approached statistical significance. This outcome shows that *students experienced reading growth following three months of Core5 use.*



# Schools	1
# Students	126
Assessment	Lexia Core5 Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	3
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2017

This study examined the extent to which use of Lexia Core5 Reading can support reading growth for students in grade 3. The study considered reading growth for English Learners (ELs) in comparison to non-EL students. There were 26 ELs and 100 non-ELs in the study. All students used Core5's online program and offline materials as part of their ELA curriculum. Both ELs and non-ELs showed significant gains on the GRADE. Importantly, ELs were able to show significantly greater gains than non-ELs, indicating that ELs were closing the reading gap with their non-EL peers. However, ELs did remain significantly below non-ELs at posttest. Overall, this study demonstrated that *both ELs and non-ELs in grade 3 benefited from successful implementation of a blended learning approach to their ELA instruction*. The fact that ELs showed greater reading gains than non-ELs suggests that Core5 was able to offer additional benefits for EL students.



# Schools	1
# Students	165
Assessment	Pearson GRADE
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 – Demonstrates a Rationale
Evaluators	Lexia Research
Grades	K
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	Emergent Bilinguals
Year	2016

This study examined the impact of Lexia Core5 Reading using two cohorts of kindergartners. Cohort 1 consisted of 19 English Learners (ELs) and 62 non-ELs who used Core5 in the second half of the school year. Cohort 2 contained 17 ELs and 67 non-ELs who used Core5 for a full school year. In Cohort 1, 68% of ELs were auto placed below grade level compared to 35% of non-ELs. ELs advanced greatly in Core5 so they were performing at similar levels to non-ELs at end of year – 98% and 100% in/above grade level, respectively. ELs in Cohort 2 also auto placed below grade level (94%) more so than non-ELs (46%). ELs again advanced greatly in Core5 so they were performing at similar, high levels to non-ELs at end of year – 88% and 90% above grade level, respectively. In addition, students in Cohort 2 were administered the GRADE – a standardized reading assessment. At pretest, ELs scored much lower than non-ELs (means 80 and 93, respectively). At posttest, ELs improved 20 points (mean 100) and non-ELs improved 15 points (mean 108). *Use of Core5 supported reading gains for both ELs and non-ELs and helped ELs close the reading gap with their non-EL peers.*



# Schools	7
# Students	2,012
Assessment	University of Oregon DIBELS Next
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Kansas
Targeted Demographics	-
Year	2015

This study examined how well use of Lexia Core5 Reading supports advancements in Benchmark Status on DIBELS Next. Students in three schools that met Core5 usage standards were compared to students in four control schools not using Core5. The Core5 schools were part of the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. Control schools were selected in Kansas based on the fact that they showed similar beginning-of-year scores on DIBELS Next as Core5 schools. End-of-year DIBELS Next scores were used to categorize students as At/Above Benchmark or Below/Well Below Benchmark. Differences in Benchmark Status favored Core5 schools. Of the 12 possible comparisons of Core5 schools and control schools, 83% of the time *Core5 schools had a significantly higher percentage of students At/Above Benchmark than control schools*. Using aggregated data, Core5 schools had a 15-percentage-point increase in students At/Above Benchmark, whereas control schools showed only a 5-percentage-point increase.



# Schools	1
# Students	368
Assessment	Pearson aimsweb
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-4
Program	Core5 Reading
State	Kansas
Targeted Demographics	Struggling Students
Year	2015

This study examined the effectiveness of Lexia Core5 Reading by comparing two groups of students at-risk for reading difficulties – those who used Core5 and students in the same school from the previous school year who did not use Core5. The study was based on the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. Students were identified as at-risk based on their aimsweb tier status. Students in Tier 1 were classified as on target for reading success, whereas students in Tiers 2 and 3 were considered at some risk or high risk for reading failure, respectively. The percentage of at-risk students was similar for the Core5 and non-Core5 years. Analyses showed that the *percentage of at-risk students who advanced tiers by the end of the school year was significantly higher for the Core5 year (50%) than the non-Core5 year (35%).*



# Schools	-
# Students	267
Assessment	Pearson aimsweb
Duration	3 Years
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	3-5
Program	Core5 Reading
State	Kansas
Targeted Demographics	-
Year	2015

This study considered the benefits of using Lexia Core5 Reading over multiple school years. Students who started using Core5 in grade 3 had their reading performance tracked over three years. The study was based on the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. The measure used to track reading performance was the aimsweb Reading Curriculum-Based (R-CBM) subtest. Scores on the R-CBM are organized into five Benchmark Categories: Well Below Average, Below Average, Average, Above Average and Well Above Average. Only 24% of students started grade 3 performing Above/Well Above Average on the R-CBM. Following three years of Core5 use, the percentage increased to 50%. These findings showed that *continued use of Core5 was associated with improved reading performance*.



# Schools	3
# Students	638
Assessment	Pearson aimsweb
Duration	School Year
Effect Size	-
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Kansas
Targeted Demographics	-
Year	2014

This study examined whether use of Lexia Core5 Reading supports advances in Tier Status on aimsweb. Students in two schools who met Core5 usage standards were compared to students in a control school not using Core5. The Core5 schools were part of the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. The control school was selected because students had similar demographic profiles and beginning-of-year aimsweb scores as the two Core5 schools. Students were categorized in terms of Tier Status on aimsweb: Tier 1 was above 44<sup>th</sup> percentile, Tier 2 was between 15<sup>th</sup> and 44<sup>th</sup> percentiles, and Tier 3 was below 15<sup>th</sup> percentile. In the fall there were no differences in Tier Status across schools. By the end of the school year, the two Core5 schools had significantly higher percentages of Tier 1 students than the control school. The Core5 schools averaged a 13% increase in Tier 1 students, whereas the control school showed no change. These outcomes revealed that *Core5 can support improved reading performance over the school year.*





## Lexia Reading Core5 Spotlight Research Report: Advances for Students Classified as Tier 3 on aimsweb

# Schools	-
# Students	1,148
Assessment	Pearson aimsweb
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	2-5
Program	Core5 Reading
State	Kansas
Targeted Demographics	Struggling Students
Year	2014

This study considered the benefits of using Lexia Core5 Reading with students identified as at risk for reading failure. The study was based on the Kansas Reading Initiative – a statewide program designed to improve reading outcomes in Kansas. The sample consisted of students in grades 2 – 5 who were classified as Tier 3 (< 15th percentile) on the Fall aimsweb reading curriculum-based subtest (R-CBM) and who obtained a Moderate/High Risk placement level in Core5. Nearly two-thirds of these students (65%) advanced one or more tiers in aimsweb when they reached benchmark in Core5 compared to less than one-quarter (22%) who failed to reach benchmark. It should be noted that strong users of Core5 (students who met usage recommendations for at least 60% of the weeks) accounted for 71% of the students who reached benchmark, while only 13% of students who did not reach benchmark were strong users. These findings show a *clear relationship between Core5 usage/progress and making advancements on aimsweb for the most at-risk students.*



# Schools	15
# Students	3,453
Assessment	Renaissance Star Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	California
Targeted Demographics	-
Year	2017

This report examines the relationship between student performance in Lexia Core5 Reading and scores on Renaissance Star Reading – an established measure of reading ability. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. Star was administered in the fall, winter and spring of the school year. Correlations were obtained between Core5 performance measures – Predictor scores in fall/winter and Benchmark status in spring – and Star percentile scores for each grade (K – 5) at three time points. In 17 of the 18 instances, correlations were significant and fell between 0.4-0.6. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), over 80% across grades showed proficient scores on Star (at/above the 40th percentile) in the spring. Similarly, for students who reached Core5 Benchmark in the spring, over 80% across grades showed proficient scores on Star. These outcomes show how *performance in Core5 is associated with scores on Renaissance Star Reading.*



## Validity Report for Core5 and PARCC English Language Arts Assessment

# Schools	3
# Students	553
Assessment	PARCC English Language Arts Assessment
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	3-5
Program	Core5 Reading
State	Massachusetts
Targeted Demographics	-
Year	2017

This report examines the relationship between student performance in Lexia Core5 Reading and scores on PARCC – an ELA/literacy assessment administered in the spring. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. Correlations were obtained between Core5 Benchmark status in the spring and PARCC scores for each grade. Correlations were significant and fell between 0.6–0.7. PARCC scores are assigned a performance category: did not yet meet expectations, partially met expectations, approached expectations, met expectations, and exceeded expectations. The top three categories – approached, met, or exceeded expectations – were considered to represent proficiency. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), 92% or more reached proficiency on PARCC in the spring. Similarly, for students who reached Core5 Benchmark in the spring, 87% were considered proficient on PARCC. These outcomes show how *performance in Core5 is associated with scores on PARCC*.



# Schools	31
# Students	5,192
Assessment	Smarter Balanced English Language Arts
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	3-5
Program	Core5 Reading
State	California
Targeted Demographics	-
Year	2017

This report examines the relationship between student performance in Lexia Core5 Reading and scores on SBAC – an ELA assessment administered in the spring. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. Correlations were obtained between Core5 Benchmark status in the spring and SBAC scores for each grade. Correlations were significant and fell between 0.5-0.6. SBAC scores are assigned a performance category: standard not met, standard nearly met, standard met, and standard exceeded. The top three categories – nearly met, met, or exceeded standards – were considered to represent proficiency. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), 86 - 89% reached proficiency on SBAC in the spring. Similarly, for students who reached Core5 Benchmark in the spring, 86% were considered proficient on SBAC. These outcomes show how **performance in Core5 is associated with scores on SBAC**.



# Schools	36
# Students	1,809
Assessment	Pearson aimsweb
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	1-5
Program	Core5 Reading
State	Florida, Kansas
Targeted Demographics	-
Year	2017

This report examines the relationship between student performance in Lexia Core5 Reading and scores on aimsweb Reading Curriculum-Based Measure (R-CBM) – an established measure of reading ability. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. aimsweb was administered in the fall, winter, and spring of the school year. Correlations were obtained between Core5 performance measures – Predictor scores in fall/winter and Benchmark status in spring – and aimsweb percentile scores for each grade (1 – 5) at three time points. In all 15 instances, correlations were significant and fell between 0.5-0.7. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), over 80% showed proficient scores on aimsweb (at/above the 40th percentile) in the spring. Similarly, for students who reached Core5 Benchmark in the spring, 80% showed proficient scores on aimsweb. These outcomes show how *performance in Core5 is associated with scores on aimsweb*.



# Schools	35
# Students	10,458
Assessment	University of Oregon DIBELS Next
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	California, Massachusetts
Targeted Demographics	-
Year	2017

This report examines the relationship between student performance in Lexia Core5 Reading and scores on DIBELS Next – an established measure of reading ability. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. DIBELS Next was administered in the fall, winter, and spring of the school year. Correlations were obtained between Core5 performance measures – Predictor scores in fall/winter and Benchmark status in spring – and DIBELS Next scores for each grade (K–5) at three time points. In all 18 instances, correlations were significant and fell between 0.5–0.7. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), the vast majority (79 – 84%) scored At/Above Benchmark on DIBELS Next in the spring. Similarly, for students who reached Core5 Benchmark in the spring, over 80% scored At/Above Benchmark on DIBELS Next. These outcomes show how *performance in Core5 is associated with scores on DIBELS Next*.



# Schools	25
# Students	4,610
Assessment	NWEA Map Growth Reading
Duration	School Year
Effect Size	-
ESSA Tier	Level 4 (Demonstrates a Rationale)
Evaluators	Lexia Research
Grades	K-5
Program	Core5 Reading
State	Florida, Illinois, Massachusetts, Minnesota, New York, Wisconsin
Targeted Demographics	-
Year	2016

This report examines the relationship between student performance in Lexia Core5 Reading and scores on Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) – an established measure of reading ability. Students used Core5 for at least 20 weeks during the school year and met usage targets for at least 50% of those weeks. MAP was administered in the fall, winter, and spring of the school year. Correlations were obtained between Core5 performance measures – Predictor scores in fall/winter and Benchmark status in spring – and MAP Rasch unit (RIT) scores for each grade (K–5) at three time points. In all 18 instances, correlations were significant and fell between 0.3–0.7. For students who had On Target Predictor scores in the fall and winter (i.e., likely to reach Core5 Benchmark in the spring), 86% showed proficient scores on MAP (at/above the 40th percentile) in the spring. Similarly, for students who reached Core5 Benchmark in the spring, 84% showed proficient scores on MAP. These outcomes show how *performance in Core5 is associated with scores on the NWEA MAP*.

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