

**Product Evidence Base**

# **Lexia<sup>®</sup> English Language Development<sup>®</sup> Efficacy Research**

November 2024



## Introduction

Lexia® has a long history of building digital programs to help students become proficient readers. Included in our portfolio is Lexia® English Language Development™ (Lexia English), an adaptive blended learning program developed to support the English language proficiency of English Learner students, also known as English Learners, in grades K-6. The program frames English language learning as an opportunity for students to become bilingual or multilingual and to achieve success in their academic life. Lexia conducts rigorous scientific research to demonstrate the efficacy of its programs. This document summarizes the efficacy research studies that constitute the emerging evidence base for Lexia English.

Lexia English contains various program features grounded in theory and research on second language acquisition and culturally relevant pedagogy. The online program incorporates personalized learning features (e.g., branched learning design), scaffolded language frames, and opportunities for speaking and listening practice powered by Lexia’s embedded Speech Recognition Engine. As students work independently in the online program, teachers are provided with real-time data related to students’ program usage, progress, and areas of improvement, as well as recommendations for student-specific resources for teacher-led instruction. This results in an individualized learning experience designed to increase students’ English language proficiency.

# Key Findings

Across multiple studies, we found:

- **Significantly higher language outcomes for Lexia English users compared to non-users.**

English Learner students who used Lexia English outgained or outscored non-users on state assessments of language skills. Effect sizes ranged from 0.18 to 0.40.

- **Effects of Lexia English were robust in oral language.**

Outcomes on state assessments show large group differences favoring Lexia English users in oral language skills.

- **Students who used Lexia English and Core5 outperformed students who used Core5 only.**

English Learner students who used Lexia English and Core5 scored higher than students who used Core5 only and a comparison group of non-Lexia students. Effect sizes ranged from 0.17 to 0.34.

- **Lexia English is effective for a wide range of English Learner students.**

Benefits of Lexia English were found across grades K-6 and for students with a diverse set of home languages.

The studies summarized in the tables below provide an evidence base establishing the efficacy of Lexia English. These include a peer-reviewed publication, two research briefs, and two state impact reports. All five meet the second highest tier of evidence for an educational intervention described by the *Every Student Succeeds Act (ESSA)*.

## 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 scientific quality. As of November 2024, there is one peer-reviewed scientific study of Lexia English, as listed below.

Table 1.  
*Peer-Reviewed Publications on Lexia English.*

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
1	2022	Moderate	0.19	K-5	2,034	English Learners

## Internal Research and Reports

Lexia regularly publishes the results from internal studies to communicate the impact of Lexia English to the public. 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. State impact reports compare learning outcomes on state language proficiency assessments for students who did or did not use Lexia English.

Table 2.

*Research Briefs on Lexia English.*

#	Year	ESSA Tier	Effect Size	Grades	# Students	Targeted Demographics
<a href="#">2</a>	2024	Moderate	0.18	1-5	1,558	English Learners
<a href="#">3</a>	2023	Moderate	0.21, 0.22	1-5	1,570	English Learners
<a href="#">4</a>	2022	Moderate	0.34	3-5	3,314	English Learners
<a href="#">5</a>	2021	Moderate	0.40	1-6	603	English Learners

The 5 research studies summarized in the above tables constitute the evidence base for Lexia English, providing solid and diverse evidence that Lexia English is effective at improving literacy outcomes for English Learners. The remainder of this document provides detailed information about each study, including links to the original publications where appropriate. As additional evidence about the effectiveness of Lexia English becomes available, this document will be updated.



# Schools	21
# Students	2,034
Assessment	English Language Proficiency Assessment of California (ELPAC)
Duration	School Year
Effect Size	0.19
ESSA Tier	Tier 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	K-5
Program	Lexia English
State	California
Targeted Demographics	English Learners
Year	2022

This large-scale study examined benefits of using Lexia English as part of hybrid or remote instruction for English Learners. Test scores on the English Language Proficiency Assessment for California (ELPAC) were compared for students who used Lexia English with English Learners in the same school district who did not use the program. *Lexia English users scored 15 points higher on the ELPAC than non-users.* This difference is equivalent to a statistically significant effect size of 0.19. Positive effects occurred in each grade K-5. In addition, *Lexia English users consistently scored higher than non-users when data were disaggregated by demographic characteristics.* The ELPAC score is based on a combination of oral and written language domains. A larger group difference favoring Lexia English users occurred in the oral domain (+18 points). This result is consistent with Lexia English's emphasis on speaking and supporting English Language development through academic conversations.



# Schools	12
# Students	1,558
Assessment	WIDA ACCESS
Duration	School Year
Effect Size	0.18
ESSA Tier	Level 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	1 – 5
Program	Lexia English
State	Massachusetts
Targeted Demographics	English Learners
Year	2024

This study compared outcomes on the 2023 WIDA ACCESS – an English language proficiency assessment used in 36 states – for English Learners (EBs) who used Lexia English and EBs who did not. WIDA ACCESS data were obtained for 1,558 EBs in grades 1-5 attending 12 schools in one Massachusetts school district. In addition to examining the full set of Lexia English users versus non-users, sensitivity analyses were conducted with a subset of closely matched Lexia English users and non-users based on prior year 2022 WIDA ACCESS scores. Students' 2023 WIDA ACCESS scores were analyzed using linear mixed effects models, controlling for 2022 scores and various demographic characteristics. It was found that *EBs who used Lexia English grew, on average, 15 more points than non-users on overall WIDA ACCESS scores*. The effect size for this difference is 0.18. Similar growth discrepancies were found in the WIDA ACCESS subareas – oral language, literacy, and comprehension. In general, this pattern of outcomes was upheld in the sensitivity analyses. Further, Lexia English users showed greater growth than non-users regardless of demographic characteristics such as gender, race/ethnicity, and special education status. Lastly, the benefits of using Lexia English were stronger for students with relatively lower 2022 WIDA ACCESS scores compared to their peers in each grade.

### 3



## Language and Literacy Benefits of Lexia English in California

# Schools	39
# Students	1,570
Assessment	English Language Proficiency Assessment for California (ELPAC) Smarter Balance English Language Arts (SBAC)
Duration	School Year
Effect Size	0.21, 0.22
ESSA Tier	Tier 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	1 – 5
Program	Lexia English
State	California
Targeted Demographics	English Learners
Year	2023

This large-scale, quasi-experimental study was designed to evaluate the extent to which English Learners can benefit from using Lexia English. English Learners who used Lexia English were compared to English Learners who did not use the program. The two groups were matched in terms of previous-year scores on the English Language Proficiency Assessment for California (ELPAC), gender, race/ethnicity and home-language. Results showed that *Lexia English users scored – on average -- 25 points higher than non-users on the ELPAC*. This difference is associated with an effect size of 0.21. Further, *Lexia English users scored 18 points higher than non-users on the Smarter Balance English Language Arts (SBAC ELA) assessment*. This difference is associated with an effect size of 0.22. Finally, Lexia English users were more likely than their peers to increase Proficiency levels as well as reach Proficiency on the Overall ELPAC and Oral ELPAC. In sum, outcomes from this study indicate that *English Learners who use Lexia English outperformed non-users on two popular assessments of English Language skills – ELPAC and SBAC* – and that Lexia English users were more likely than non-users to increase Proficiency levels on the ELPAC.





# Districts	5
# Students	3,314
Assessment	English Language Proficiency Assessment of California (ELPAC) Smarter Balance English Language Arts (SBAC)
Duration	School Year
Effect Size	0.34
ESSA Tier	Tier 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	3 – 5
Program	Lexia English, Lexia Core5 Reading
State	California
Targeted Demographics	English Learners
Year	2022

This large-scale study examined the impact of using Lexia English and Core5 for English Learners. Five California school districts participated in this study. Each district used Core5 in prior school years, using both Lexia English and Core5 in 2021-22. Analyses included students who met average weekly minutes of Lexia English use for at least 8 weeks and students who met Core5 usage targets for at least 8 weeks. *Students who used both Lexia English and Core5 scored 22 points higher on the Smarter Balanced English Language Arts (SBAC) test than students who used Core5 only.* The effect size for this difference is 0.17. Further, 23% of students who used both products achieved proficiency on SBAC compared to 14% who used Core5 only. These outcomes show additive benefits of Lexia English and Core5 over just Core5. When examining effects of Lexia English and Core5 on the English Language Proficiency Assessment of California (ELPAC), a comparison group of English Learners who did not use Lexia programs was included. *Lexia users scored significantly higher on the ELPAC than comparison students.* Effect size is 0.34 for students who used both Lexia English and Core5 and 0.23 for those who used Core5 only.



# Schools	16
# Students	603
Assessment	Arizona English Language Learner Assessment (AZELLA)
Duration	Half-Year
Effect Size	0.40
ESSA Tier	Tier 2 (Moderate) – Quasi-Experimental
Evaluators	Lexia Research
Grades	1-6
Program	Lexia English
State	Arizona
Targeted Demographics	English Learners
Year	2021

This study addressed the benefits of using Lexia English as part of hybrid or remote instruction for English Learners. Students who used Lexia English were compared to English Learners in the same school district who did not use the program. Analyses were based on examining changes in English language proficiency scores on the Arizona English-Language Learner Assessment (AZELLA) from Spring of the year prior to using Lexia English to Spring of the year following use of the program. Findings demonstrated that *students who used Lexia English showed significantly greater overall English language proficiency growth on the AZELLA (41 points) compared to students who did not use the program (17 points)*. This difference is equivalent to an effect size of 0.40. In addition, it was found that Lexia English users had the greatest growth within the speaking and reading subdomains on the AZELLA.

## References

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# Lexia<sup>®</sup>

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Lexia<sup>®</sup>, a Cambium Learning Group company, is the Structured Literacy expert. For more than 30 years, the company has focused solely on literacy, and today provides science of reading-based solutions for both students and educators. With robust offerings for differentiated instruction, personalized learning, assessment, and professional learning, Lexia helps more learners read, write, and speak with confidence.



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