

RESEARCH BRIEF Impact of Using Lexia English in Arizona

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Key Findings

- Students who used Lexia English showed significantly greater English language proficiency growth on the Arizona English-Language Learner Assessment (AZELLA) than students who did not use Lexia English.
- Lexia English students had significantly greater odds of **moving up a proficiency level** than non-Lexia English students.
- Lexia English students showed the greatest growth in the AZELLA speaking and reading subdomains.

Keywords: English proficiency growth, Emergent Bilinguals

Introduction

This study evaluates the relationship between using the Lexia® English Language <u>Development</u>[™] program (Lexia English) and English language proficiency outcomes for students in grades 1-6. Lexia researchers partnered with one school district in Arizona to examine patterns in students' scores on the Arizona English-Language Learner Assessment (AZELLA). AZELLA provides scaled scores and proficiency levels for the overall test and the subdomains of listening, speaking, reading, and writing. The sample included 603 students in grades 1-6. Students were considered Lexia English users if they met the average minimum weekly usage recommendations (Grade 1: 30 minutes, Grade 2-6: 45 minutes) and used the program for at least 4 weeks.

	Lexia English Users (n = 103)	Non- Users (n = 500)
Avg. AZELLA Overall Spring 21 Score	2375	2406
Avg. AZELLA Overall Spring 20 Score	2334	2389
% Female	50%	47%
% Spanish Home Language	59%	71%
% Hispanic	69%	83%
% Black	17%	5%
% White	5%	6%
% Other	9%	6%



Approximately 17% of students in the sample were classified as Lexia English users. The district used Lexia English as part of hybrid or remote instruction for Emergent Bilingual students in grades K to 6 across 16 schools. Over the school year, Lexia English users spent an average of 11 weeks using the program and completed 76 units in the program. Students who used Lexia English had lower English proficiency at baseline (spring 2020 AZELLA scores) compared to students who did not use the program. AZELLA results include overall scaled scores that range from 2000 to 3000 across grades, subdomain scores ranging from 100 to 400, and English language development levels linked to state English language standards. We explore correlational relationships between use of Lexia English and AZELLA outcomes by analyzing AZELLA scores from spring 2020, spring 2021, as well as the difference between them. Examining difference scores allows for an examination of score changes, or growth, from one year to the next. All analyses controlled for students' home-language (Spanish-speaking vs. non-Spanish speaking), gender, race/ethnicity, and school.

Results

Students using Lexia English showed significantly greater English language proficiency growth on the overall AZELLA than students who did not use Lexia English.

Between 2020 and 2021, Lexia English users scored 41 points higher on the overall AZELLA while students not using the program only scored 17 points higher. These differences in growth were statistically significant across groups, with the Lexia English users showing a significantly larger difference of 24 points compared to the non-Lexia English users, an effect size equivalent to 0.40. Effect sizes help describe the magnitude of the difference between treatment and control groups and allows for comparison of impact of treatment effects across studies that use different assessment measures. An effect size of 0.40 is considered large in educational interventions (Kraft, 2020).

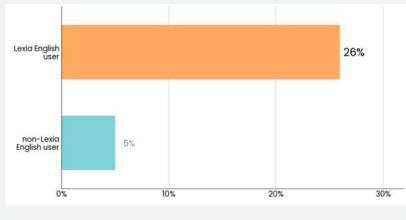


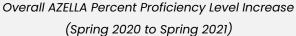


Additionally, the findings indicate that students who used Lexia English in this study achieved similar English language proficiency outcomes as their Emergent Bilingual peers, despite being at significantly lower proficiency levels prior to using the program. Specifically, the year prior to using Lexia English, the program users scored significantly lower than the non-Lexia English users on the spring 2020 Overall AZELLA (Mean Difference = 55 points; Effect Size = -1.00, p < .001), but there was no significant difference among groups after using Lexia English on the spring 2021 Overall AZELLA (Mean Difference = 31 points; Effect Size = 0.09, p = .287).

Lexia English users had greater odds of moving up a proficiency level on the overall AZELLA than students who did not use Lexia English.

We explored whether Lexia English users were more likely than non-Lexia English users to move up a proficiency level on the overall AZELLA. The analyses revealed that Lexia English users were significantly more likely than non-Lexia English users to increase a proficiency level on the overall AZELLA from spring 2020 to spring 2021. Twenty-six percent of Lexia English users moved up a proficiency level compared to only 5% of non-Lexia English users, a statistically significant difference of 21 percentage points.





Lexia English users showed the greatest growth for the speaking and reading subdomains.

Between 2020 and 2021, Lexia English users showed increased scores for all four AZELLA subdomains, with the largest differences in speaking (+11 points) and reading (+7 points), followed by writing (+3 points) and listening (+1 points). The large effect for speaking aligns with the program's emphasis, while the large effect for reading highlights how speaking and oral language practice benefits the acquisition of broader literacy skills as well (<u>NASEM, 2017</u>). Additionally, the Lexia English users showed significantly larger score changes than the non-Lexia English users across all four subdomains of speaking (Effect Size: 0.49), reading (Effect Size: 0.39), writing (Effect Size: 0.24), and listening (Effect Size: 0.22).

Want to Learn More?

Although we cannot make strong causal claims, the results of this study provide positive evidence that use of Lexia English is associated with learning on the AZELLA. If you would like more information on this study, please contact <u>research@lexialearning.com</u>.

