

## English Learners – Impact of Lexia® Core5® Reading

Data compiled and analyzed by the Lexia Research & Analytics Department ([research@lexialearning.com](mailto:research@lexialearning.com))

### Key Findings

- Among a national sample of Core5 users, ELs made greater gains in the program than non-ELs, helping to close the reading gap between these groups.
- ELs using Core5 demonstrated similar or greater gains on outside reading measures compared to non-ELs using Core5.
- ELs who reached benchmark in Core5 showed higher performance levels on the PARCC compared to all ELs in the same school district.
- Experimental studies comparing ELs using Core5 with EL students not using Core5 found greater gains on outside reading measures for Core5 students.

Efforts to identify effective reading instruction for students who are English Learners (ELs) are of critical importance. To highlight the urgency, the percentage of ELs in the U.S. is projected to increase from close to 10%<sup>1</sup> in 2015<sup>2</sup> to approximately 40% in 2030<sup>3</sup>. Further, 68% of 4th grade ELs score below U.S. national proficiency levels in reading compared to 28% of non-ELs<sup>4</sup>. The long term effects of failing to achieve reading proficiency are consequential. These include reduced self-esteem, poor performance in school, increased risk of dropping out from high school, and low future earnings<sup>5</sup>.

Here we review research demonstrating the positive impact of the Lexia® Core5® Reading program (Core5) for ELs in elementary school. The first section presents analyses that compare learning for ELs and non-ELs using Core5. The second section looks at the performance of ELs using Core5 on a summative state assessment, and the final section describes studies comparing ELs using Core5 (treatment group) and ELs not using Core5 (control group).

### Gains for ELs and Non-ELs

Based on a national sample of Core5 users, there were similar gains in the program for ELs and non-ELs over the 2017-2018 school year. Results were obtained from 14,008 ELs and 14,008 non-ELs matched on race, gender and grade. At the beginning of the school year a smaller percentage of ELs (20%) than non-ELs (39%) were working on skills in or above their grade level in Core5. Both EL and non-ELs improved over the course of the year. However, ELs

<sup>1</sup> Note that this is data for public schools only

<sup>2</sup> McFarland, J., Hussar, B., Wang, X., Zhang, J., Wang, K. Rathbun, A.,... Bullock Mann F. (2018). English Language Learners in Public Schools. In T. Nachazel, W. Smith, and M. Ossolinski (Eds.), *The Condition of Education 2018*. Retrieved from <https://nces.ed.gov/pubs2018/2018144.pdf>

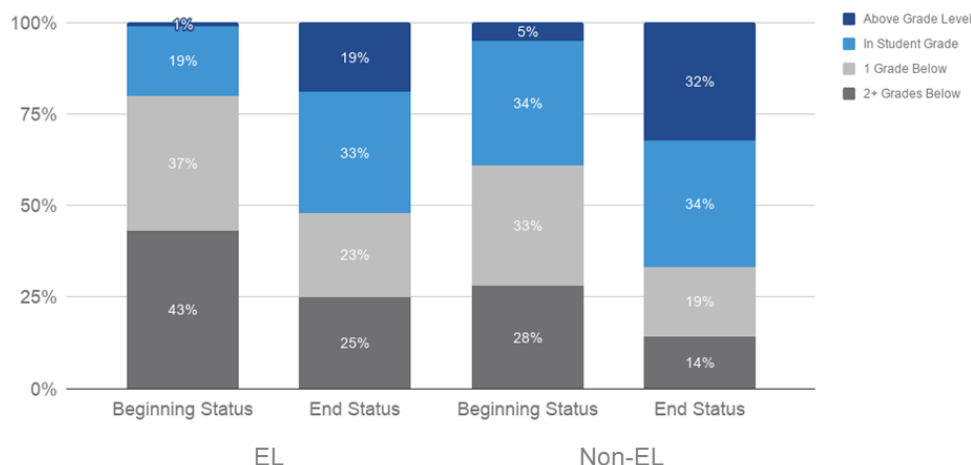
<sup>3</sup> Truong, N. (2017, Aug). *Next Generation Learning Models for English Language Learners*. Retrieved from <https://www.inacol.org/wp-content/uploads/2017/06/iNACOL-NGLMELL-02Aug2017.pdf>

<sup>4</sup> National Center for Education Statistics. (2017). [Tables of 2017 Reading Scores for Grades 4 and 8 by Demographic]. *2017 Reading Grades 4 and 8 Assessment Report Cards: Summary Data Tables for National and State Average Scores and Achievement Level Results*. Retrieved from [https://www.nationsreportcard.gov/reading\\_2017/files/2017\\_Results\\_Appendix\\_Reading\\_State.pdf](https://www.nationsreportcard.gov/reading_2017/files/2017_Results_Appendix_Reading_State.pdf)

<sup>5</sup> What's the Impact. (n.d.). In *The Children's Reading Foundation*. Retrieved from <https://www.readingfoundation.org/the-impact>

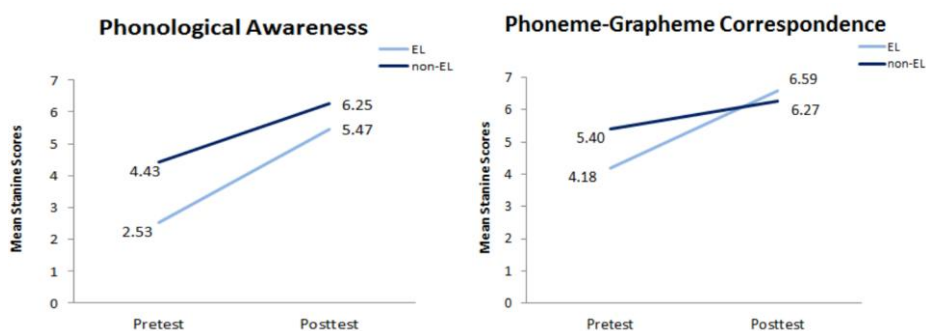
made greater gains. ELs showed a **32% improvement** with 52% working on skills in or above their grade level at the end of the year. By comparison, 66% of non-ELs finished the year working on skills in their grade level or above. This reflects a 27% improvement.

### Grade-level Gains in Core5 for ELs and Non-ELs



In addition to gains in Core5, formal research studies have shown that ELs using Core5 display comparable or superior gains to non-ELs on outside standardized measures of reading ability. For instance, Brooke, Kazakoff, Macaruso and Prescott studied kindergartners using Core5 and found that ELs showed greater gains than non-ELs on subtests from the *GRADE*<sup>6</sup>, a diagnostic test of reading skills<sup>7</sup>. It was then reported by Prescott, Bundschuh, Kazakoff and Macaruso that ELs and non-ELs using Core5 showed similar gains on the *GRADE* when analyses included students in first through fifth grade<sup>8</sup>.

### Performance of EL and Non-EL Kindergartners on *GRADE* subtests



<sup>6</sup> Brooke E., Kazakoff, E.R., Macaruso, P., & Prescott, J. (2016). Lexia® PowerUp Literacy™: *Can a Blended Learning Model of Reading Instruction Support the Development of ELL Students' Reading Skills in Kindergarten?*. Poster presented at the Society for the Scientific Study of Reading Annual Conference.

<sup>7</sup> Williams, K.T. (2011). *Group reading assessment and diagnostic evaluation*. Circle Pines, MN: American Guidance Service.

<sup>8</sup> Prescott, J.E., Bundschuh, K., Kazakoff, E. & Macaruso, P. (2017). Elementary school – wide implementation of a blended learning program for reading intervention. *The Journal of Educational Research*, 111. doi: [10.1080/00220671.2017.1302914](https://doi.org/10.1080/00220671.2017.1302914)

Further, a large-scale study with matched groups of ELs and non-ELs using Core5 found that for students in kindergarten through fifth grade ELs made similar gains to non-ELs on a commonly-used progress monitoring tool<sup>9</sup>, *aimsweb*<sup>10</sup>. The percentage of students in Tier 1 increased from 27% for both groups at the beginning of the year to 55% and 47% for ELs and non-ELs, respectively, at the end of the year.

### Performance of ELs on a Summative State Assessment

For ELs in a low-SES school who reached benchmark (i.e., completed grade level skills) in Core5, 68% obtained scores that “approached”, “met”, or “exceeded” standards on the *PARCC*<sup>11</sup> compared to 37% of all ELs in the same school district. Further, 26% of ELs in that school who reached benchmark in Core5 obtained scores that “met” or “exceeded” standards on the *PARCC* compared to only 10% of ELs in the district.

### Gains for Treatment ELs Compared to Controls

A series of experimental studies have also been conducted with ELs. Schechter, Macaruso, Kazakoff and Brooke randomly assigned first and second grade classes to a Core5 treatment group or a control group<sup>12</sup>. It was found that ELs in the treatment group showed greater gains on the *GRADE* than ELs in the control group. Similarly, Macaruso and Rodman used random assignment of kindergarten classes to treatment or control group and also found greater gains on the *GRADE* for students in the treatment group<sup>13</sup>.

### Summary

The research reviewed above demonstrates that Core5 has a positive impact on reading growth for ELs. It has been shown that Core5 use leads to comparable if not greater gains for ELs than non-ELs

Summary of Published Research on Core5 and ELs			
ESSA Level of Evidence	No. of Articles	Measures	Avg. Effect Size
<b>Strong</b>	2	<i>GRADE</i>	.44
<b>Promising</b>	2	<i>GRADE</i> , <i>aimsweb</i>	N/A

both in the program and on outside standardized measures of reading ability. In addition, ELs who reach benchmark in Core5 achieve higher performance levels on a state assessment than ELs in general. Finally, experimental studies have found that ELs using Core5 outperform ELs in control groups. Altogether, the evidence suggests that Core5 is a powerful tool for promoting EL’s foundational literacy skills in elementary school.

<sup>9</sup> Kazakoff, E.R., Macaruso, P., & Hook P. (2017). Efficacy of a blended learning approach to elementary school reading instruction for students who are English Learners. *Educational Technology Research and Development*, 66(2). Retrieved from <https://link.springer.com/article/10.1007/s11423-017-9565-7>

<sup>10</sup> Pearson Education. (2011). *Aimsweb default cut scores explained*. Bloomington, MN: Pearson. Retrieved from: [http://www.aimsweb.com/wpcontent/uploads/AIMSweb\\_Default\\_Cut\\_Score\\_Guide.pdf](http://www.aimsweb.com/wpcontent/uploads/AIMSweb_Default_Cut_Score_Guide.pdf).

<sup>11</sup> Partnership for Assessment of Readiness for College and Careers. (n.d.). *ELA/Literacy: Helping you understand the summative assessments*. Retrieved from <https://parcc-assessment.org/ela-literacy/>

<sup>12</sup> Schechter, R., Macaruso, P., Kazakoff, E., & Brooke, E. Exploration of a blended learning approach to reading instruction for low SES students in early elementary grades. *Computers in the Schools* 32(3-4). doi:10.1080/07380569.2015.1100652

<sup>13</sup> Macaruso, P., & Rodman, A. (2011). Benefits of computer-assisted instruction to support reading acquisition in English language learners. *Bilingual Research Journal*, 34, 301-315. doi: 10.1080/15235882.2011.622829