Lexia Reading Core5® Research Report: Blended Learning Early Intervention for ELL and non-ELL Kindergartners

Data compiled and analyzed by the Research Team (research@lexialearning.com)

Key Findings

- In the pilot study, ELL and non-ELL kindergartners used Lexia Reading Core5® during the second half of the school year. Through Core5's auto placement tool, ELL students placed significantly behind non-ELL students in Core5. At the beginning of the following school year, ELL students scored in the average range on a standardized reading test and comparably to non-ELL students.
- Full-year use of Lexia Reading Core5 resulted in significant reading gains for both ELL and non-ELL kindergartners, with ELL kindergartners closing the reading gap with their non-ELL peers.

Sample Description

To demonstrate the efficacy of Lexia Reading Core5 (Core5) for early intervention, this study reports on two cohorts of kindergartners within the same school. Students were assessed using the *Group Reading Assessment and Diagnostic Evaluation (GRADE)*. Cohort 1 represents a pilot study in which kindergarteners (ELL: 19; non-ELL: 62) used Core5 in the second half of the school year and were tested with the *GRADE* as a posttest at the beginning of the next school year. Cohort 2 consists of kindergartners (ELL: 17; non-ELL: 67) who used Core5 for a full school year and were tested with the *GRADE* as a pretest at the beginning of the school year and as a posttest at the end of the school year. The majority of ELL students (>80%) were native speakers of Haitian-Creole.

Cohort 1 Pilot Results

During the pilot study, teachers participated in three trainings to support the integration of Core5 into the English Language Arts curriculum. School administrators received an additional leadership training. Nominal rewards were provided to teachers with excellent classroom usage during the pilot study. Students in the pilot study averaged 77 minutes per week of online Core5 use.

Kindergartners in the pilot study started Core5 in late January and continued to the end of the school year. In January, ELL kindergartners auto placed[1] in Core5 at levels significantly below non-ELL kindergartners. Placement was below grade level for 68% of ELL kindergartners compared to 35% of non-ELL kindergartners. By the end of the school year, ELL kindergartners were performing at similar Core5 levels as non-ELL kindergartners: 98% and 100% in or above grade level, respectively. In addition, ELL kindergartners began the next school year with mean *GRADE* standard scores in the average range and statistically equivalent to non-ELL kindergartners (ELL: 98; non-ELL: 100). These results show that advances in Core5 made by ELL kindergartners in the second half of the school year were maintained through the summer and were evident at the beginning of the next school year.

---

[1] Previous research has established that performance on the Core5 auto placement is significantly correlated with standard reading assessments, such as DIBELS, aimsweb, MAP, and STAR.
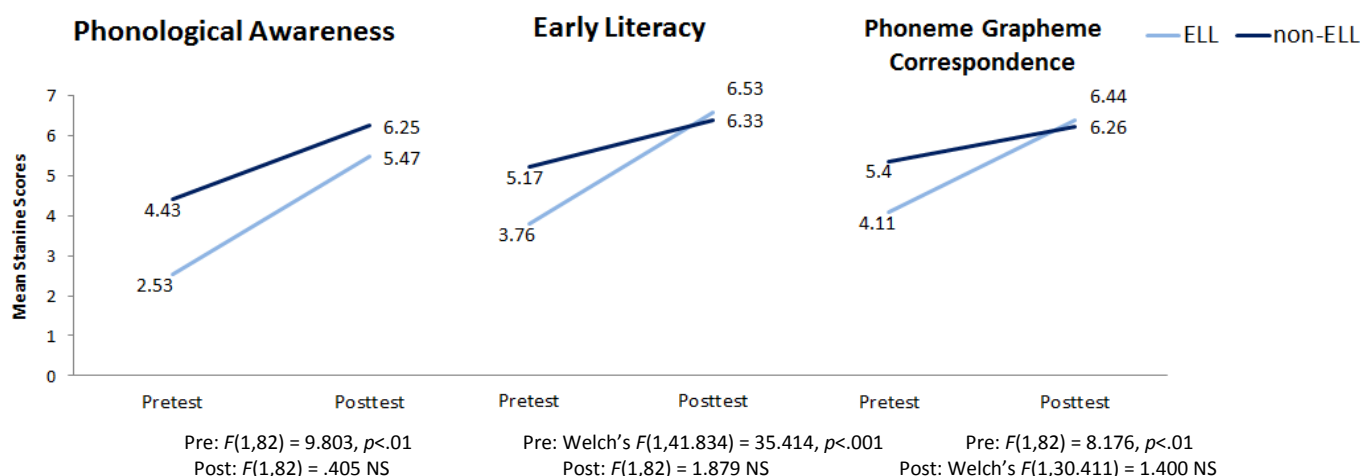
Cohort 2 Results

Cohort 2 consists of kindergartners who used Core5 for a full school year from October to June. These students averaged 72 minutes per week of online Core5 use. In Cohort 2, ELL kindergartners auto placed significantly below non-ELL kindergartners in Core5 (ELL: 94% below grade level; non-ELL: 46% below grade level). By the end of the school year, ELL and non-ELL kindergartners showed nearly equivalent performance in Core5, with the vast majority of students in both groups working above grade level (ELL: 88%; non-ELL: 90%). See Figure 1.

Figure 1. Cohort 2 Pretest and Posttest Core5 Levels
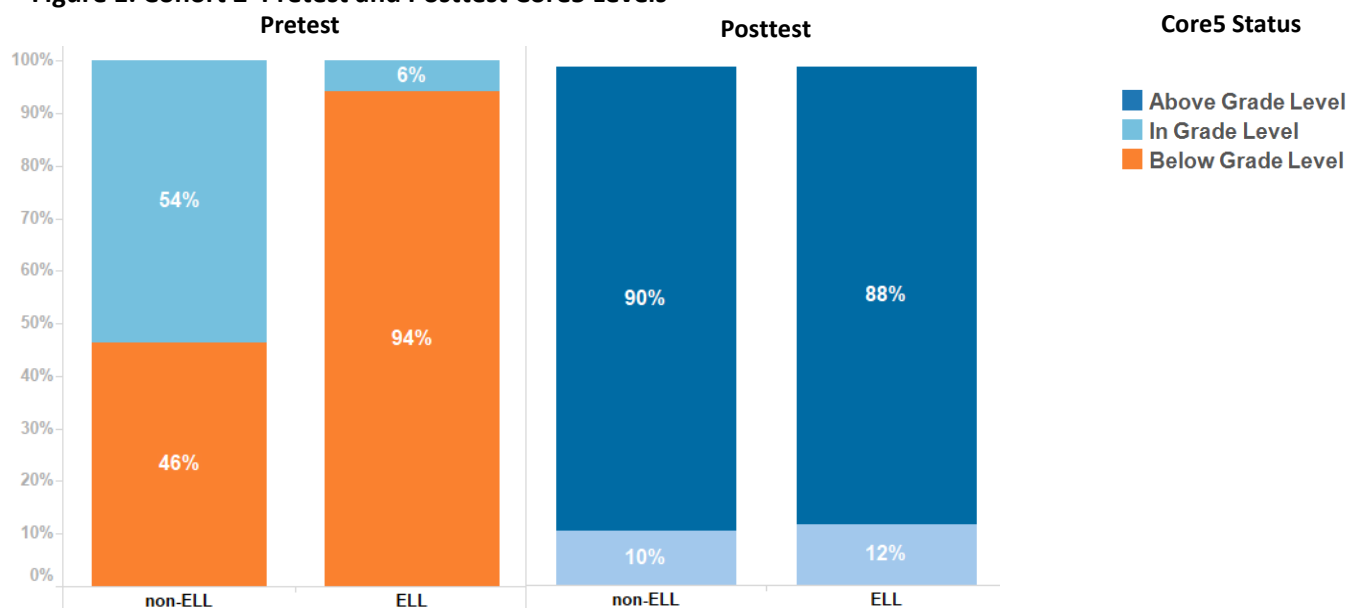
In addition to advances in Core5, both ELL and non-ELL kindergartners made significant gains on the *GRADE*. At the beginning of the school year, ELL kindergartners scored significantly lower than non-ELL kindergartners on the *GRADE* (ELL mean: 80; non-ELL mean: 93). By the end of the school year, ELL kindergartners' mean score increased 20 standard score points to a posttest mean of 100, and non-ELL kindergartners' mean score increased 15 standard score points to a posttest mean of 108. As shown in Figures 2-4, ELL kindergartners made particular progress on the early literacy, phonological awareness, and phoneme-grapheme correspondence subtests from the *GRADE*[2], closing the reading gap with their non-ELL peers.

Pre: $F_{(1,82)} = 9.803$, $p<.01$
Post: $F_{(1,82)} = .405$ NS

Pre: Welch's $F_{(1,41.834)} = 35.414$, $p<.001$
Post: $F_{(1,82)} = 1.879$ NS

Pre: $F_{(1,82)} = 8.176$, $p<.01$
Post: Welch's $F_{(1,30.411)} = 1.400$ NS

---

[2] Note: Overall *GRADE* scores are standard scores. Subtest scores on the *GRADE* are stanine scores.