



## RESEARCH BRIEF

# Impact of Lexia® LETRS® on Lexia® Core5 Usage and Students' Reading Ability

## Key Findings

- Core5 students were more likely to meet usage recommendations if their teachers began or completed LETRS, suggesting that **LETRS may improve the implementation of evidence-based reading interventions.**
- Students who used Core5 and had a teacher that began or completed LETRS **scored higher in beginning reading ability** after one academic year compared to students who were only using Core5.

## Introduction

Language Essentials for Teachers of Reading and Spelling (LETRS) is comprehensive professional learning aimed at providing elementary educators the deep knowledge needed to be literacy and language experts in the science of reading. The [LETRS logic model](#) holds that LETRS can also improve student reading outcomes, if educator knowledge, classroom instruction, and self-efficacy improve beforehand. Though there are many ways that LETRS might improve classroom instruction, one way identified by the LETRS theory of action is through increased use of evidence-based programs, such as Lexia's Core5. Core5 and LETRS share an emphasis on beginning reading skills. When LETRS introduces educators to the importance of teaching these skills, educators will implement Core5 with a greater degree of fidelity and improve student beginning reading ability.

As part of an ongoing commitment to evaluating its programs, Lexia researchers conducted an ESSA Moderate quasi-experimental study to examine the added value of LETRS-trained teachers in classrooms that used Core5, a student-facing intervention with a robust evidence-base for its effectiveness. Specifically, researchers examined if LETRS-trained teachers had a positive impact on students to achieve Core5's weekly usage targets and the impact of LETRS on students' beginning reading ability.

## Study Design

The sample consisted of 2,302 students across 114 classrooms in 8 schools. All student participants were in Grades K-5 and all used Core5. The schools were in the same district in the western United States. The treatment group consisted of Core5 students whose teachers began or completed LETRS during the 2020-2021 school year. On average, teachers completed 57% of LETRS (i.e., Volume 1 and part of Volume 2). The control group comprised students who were only using Core5 with teachers who did not begin LETRS.

2,302  
Students

114  
Classrooms

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Schools

Grades  
K-5

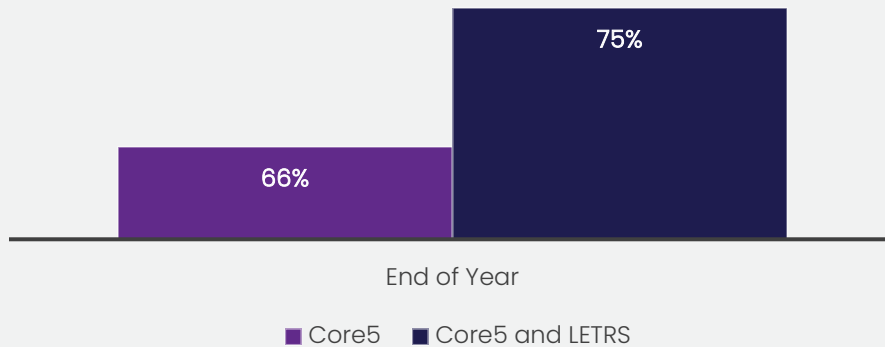
Informed by the What Works Clearinghouse Standards 5.0 (2022), Lexia researchers used propensity score matching to estimate the added value of using Core5 and LETRS together. We compared the extent to which students met Core5 usage recommendations for students whose teachers began or completed LETRS to similar students who used Core5-only. We conducted a similar analysis for students' end-of-year (EOY) Acadience composite scores. Propensity score matching ensured treatment and comparison groups were similar at baseline in grade, special education status, gender, economic disadvantage, English learner status, ethnicity, and initial reading ability. We fit multilevel regression models that included a random intercept to account for clustering of students within classrooms, always adjusting for a beginning reading pre-test to increase the precision of our estimates. Finally, we conducted a series of sensitivity analyses designed to test the LETRS theory of action and the robustness of our results to different analytic assumptions and samples.

## Results

### **Core5 students were more likely to meet usage recommendations if their teachers began or completed LETRS, suggesting that LETRS may improve implementation of evidence-based reading interventions.**

Core5 students whose teachers began or completed LETRS met Core5 usage recommendations more frequently than students who were using Core5 with teachers who did not begin LETRS. This finding was statistically significant consistent with the logic model for LETRS, which indicates that an expected short-term outcome of LETRS for educators is improved instructional practice. This pattern of results suggests that LETRS helps teachers used evidence-based instruction with more precision, perhaps due to a finer-grained understanding of the science of reading or improved self-efficacy to deliver more teacher-developed reading instruction.

## Percent of Weeks Students Met Core5 Usage Recommendations

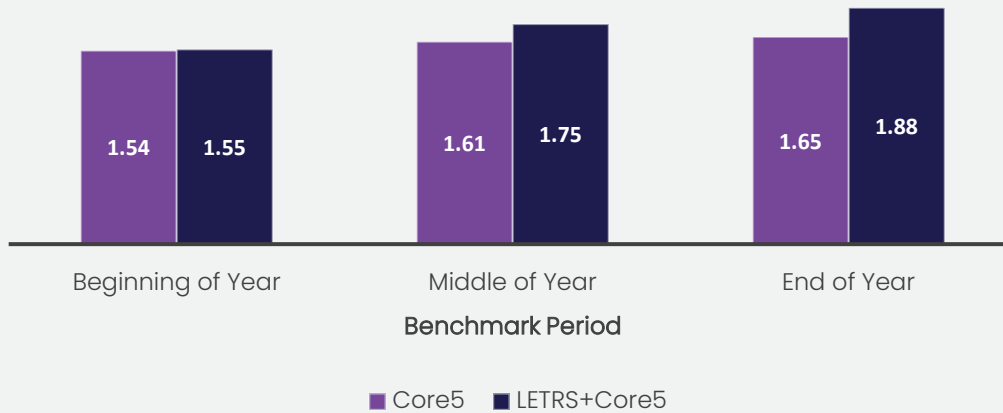


Students in Core5 and LETRS classrooms were more likely to meet Core5 usage targets.

**Students who used Core5 and had a teacher that began or completed LETRS scored higher in beginning reading ability after one academic year compared to students who were only using Core5.**

Our study compared the beginning reading ability of students who used Core5 with teachers who did not begin LETRS to that of Core5 students who had access to a teacher that completed or was in the process of completing LETRS. There was no statistically significant difference between groups at the beginning of the year. However, by the middle of the year, Core5 students whose teachers were working on LETRS had improved their beginning reading ability more than the Core5 students whose teachers did not begin LETRS. This difference was not statistically significant. By the end of the year, the difference between the two groups had become statistically significant. The effect size of 0.26 on beginning reading can be described as moderate to large (Lipsey et al., 2012).

## Beginning Reading Ability (Standardized Scale Scores)



By the end of the year, Core5 students with teachers working on LETRS had significantly higher reading abilities.

## Want to Learn More?

For additional information or updates on research related to Core5 or LETRS, please contact [research@lexialearning.com](mailto:research@lexialearning.com).

## References

Lipsey, M., Puzio, K., Herbert, M., Steinka-Fry, K., Cole, M., Anthony, K., & Busick, M. (2012). *Translating the statistical representation of the effects of education interventions into more readily interpretable forms*. <https://ies.ed.gov/ncser/pubs/20133000/pdf/20133000.pdf>

What Works Clearinghouse. (2022). Standards Handbook, 5.0., Institute of Education Sciences, What Works Clearinghouse. Retrieved from: <https://ies.ed.gov/ncee/wwc/handbooks>

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