

RESEARCH BRIEF

Benefits of Lexia[®] PowerUp Literacy[®] in a Short-Term Implementation¹

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Key Findings

- In a randomized control trial study, sixth-grade students using PowerUp scored significantly higher (21 points) on STAR Reading assessment than students who did not use PowerUp.
- Completing Grammar units was associated with an average gain of 38 points on STAR Reading for students who began the year in PowerUp's foundational levels of Grammar.
- PowerUp students were more likely to move up a benchmark level on STAR Reading than students who did not use PowerUp, and this difference approached statistical significance.

¹ Preliminary results of this study were published in the <u>2022 EdMedia conference proceedings</u>.

Introduction

This study evaluated the impact of using the Lexia® PowerUp Literacy® program (PowerUp) on sixthgrade students' reading achievement during a short-term implementation. Lexia partnered with a suburban school district in Massachusetts to conduct a randomized control trial study during the 2019-20 school year. The study was reduced to a half-year implementation due to disruptions to school schedules because of the COVID-19 pandemic. Three middle schools were randomly assigned to use PowerUp (n=206 students), and two middle schools used the existing curriculum (n=364 students). PowerUp students were included in the sample if they had strong use of the program, defined as using the program for at least 18 weeks during the half-year implementation. On average, PowerUp students spent 19 weeks using the program and completed 345 units.

Student Characteristics (N=570)		
PowerUp Students	36%	
Socioeconomically Disadvantaged	65%	
Female	47%	
English Learners	23%	
Special Education	17%	
Race/Ethnicity		
Black/African American	59%	
White	17%	
Hispanic	15%	
Other	8%	

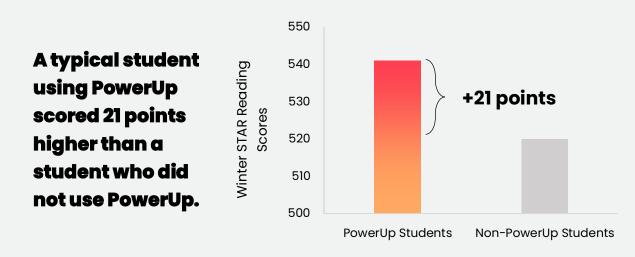
Renaissance STAR Reading® was used to assess reading ability in this study. Student measures were overall scaled scores that range from 0 to 1400 across grades and levels linked to state ELA benchmarks (Close, 2016), including the Massachusetts Comprehensive Assessment System (MCAS). Fall STAR Reading was used as a control for prior achievement and Winter STAR Reading as the outcome measure. All analyses also controlled for students' socioeconomic, special education and English learner status, gender, and race/ethnicity.

Results

Students using PowerUp scored significantly higher (21 points) on the STAR Reading assessment than students who did not use PowerUp.

Compared to students in the control group, PowerUp students scored significantly higher by 21 points on the Winter STAR Reading with an effect size of 0.11. Effect sizes help describe the magnitude of the difference between the intervention group and the control group and allow for comparisons of results across studies, programs, and outcome measures. An effect size of 0.11 is considered moderate in educational interventions (Kraft, 2020).





Completing Grammar units was associated with an average gain of 38 points on the STAR Reading for students who began the year in PowerUp's foundational levels of Grammar.²

PowerUp follows a scope and sequence based on three strands (domains) of instruction: Word Study, Grammar, and Reading Comprehension. When students begin the program, they are auto-placed into a specific level within each strand and work on content aligned with their abilities. We found that students who placed in the foundational levels (grades K-2) in the Grammar strand scored 0.66 higher on STAR Reading for every unit they completed in Grammar. Students who completed the average number of units in Grammar (58 units) were expected to score 38 points higher on STAR Reading compared to those who did not complete any units in the Grammar strand. This result was statistically significant and demonstrates the impact of grammar instruction on reading achievement for students who need support in this area. In the foundational zone, PowerUp's Grammar strand focuses on processing orally presented sentences which is particularly valuable for students at this level. Similar analyses for students who placed in the foundational zone in the Word Study or Reading Comprehension strand showed a positive trend but were not significant.



Students completed on average 58 Grammar units.

Completion of a Grammar unit was associated with a 0.66 increase in STAR Reading scores.

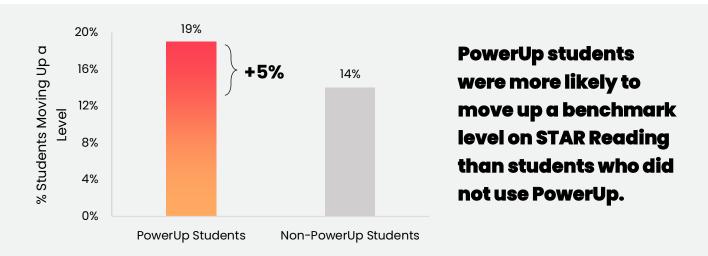
0.66 x 58 units = +38 points

² These analyses are based on all PowerUp students placed in the foundational levels, including those who did not reach the 18-week use criterion. Analyses for the Grammar, Word Study, and Reading Comprehension strands included 202, 165, and 140 students, respectively.



PowerUp students were more likely to move up a benchmark level than students who did not use PowerUp, and this difference approached statistical significance.

We explored whether students using PowerUp were more likely to move up a state-based benchmark level³ on STAR Reading from Fall to Winter compared to students not using PowerUp– that is, move from Not Meeting Expectations to Partially Meeting Expectations, or from Partially Meeting Expectations to Meeting Expectations. Nineteen percent of PowerUp students moved up a level compared to only 14% of non-PowerUp students, a 5% difference. This difference approached statistical significance.



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³ STAR Reading provides predicted state benchmark levels based on student STAR Reading performance.

