

## RESEARCH BRIEF

# Efficacy of the Lexia PowerUp Literacy Program: State Test Score Improvements for Struggling and Non-Proficient Readers

## Key Findings

- Middle school students who used PowerUp during supplemental reading classes **significantly outperformed control students** on the end-of-year summative state assessment.
- The estimated **effect size of using PowerUp was 0.54**. This is considered a large effect and is **nearly 5 times higher** than the average effect size for middle school reading interventions.

## Introduction

Only 1 out of 3 middle school students achieve standards of reading proficiency (NAEP, 2022). In recent years educational policymakers have required students to complete end-of-year summative assessments to quantify proficiency rates within districts and, if necessary, track progress towards increased proficiency. This presents a challenge for educators: Some students begin the academic year reading well below grade level, and educators are tasked with remediating their skill gaps while at the same time preparing them for high-stakes assessments that focus on grade-level skills (Morgan, 2016).

The Lexia PowerUp Literacy Program (PowerUp) was designed to target common skill deficits and build proficiency among struggling and non-proficient secondary readers. PowerUp provides a systematic sequence of learning activities that students work through independently online, integrated with offline teacher-led lessons and paper-and-pencil practice and generalization activities. PowerUp is organized into three instructional strands that address key components of reading proficiency: Word Study, Grammar, and Comprehension.

As part of an ongoing commitment to evaluating its programs, Lexia Research conducted this study to address whether using PowerUp impacts students' performance on a high-stakes summative state assessment. This study is a randomized control trial that meets ESSA's criteria for Strong research, the highest tier of evidence outlined by federal law.

## Study Design

Lexia partnered with a suburban school district in Michigan to analyze the effect of using PowerUp on students' state test scores. The district has two middle schools, both of which participated in this study. All of the district's K-8 buildings receive school-wide Title I funding. Seventy percent (70%) of middle school students in the district were reading below grade level at the time of this study.

The sample consisted of 38 6<sup>th</sup> grade students. They were enrolled in supplemental reading classes comprised of students identified as needing Tier 2 support. These supplemental classes met for 40 minutes daily in addition to regular ELA instruction. Male students made up 53% of the sample. Most students identified as Black (47%) or White (45%). Eight percent (8%) received Special Education services, and 71% were classified as economically disadvantaged. All participants were English speakers.



Four classes (23 students) were randomly assigned to a treatment group that used PowerUp in their supplemental reading classes. Two classes (15 students) were assigned to a control group that continued using the traditional supplemental reading curriculum<sup>1</sup>. The district historically struggled to accelerate students' reading proficiency and requested that classes be disproportionately assigned to the treatment group. Students in the treatment group began using PowerUp in January and continued through June. On average, PowerUp students used the program for 15 weeks and completed 64 minutes of online work per week.

Students in this district take the Michigan Student Test of Educational Progress (M-STEP) English Language Arts (ELA) assessment as their end-of-year summative test. M-STEP is a computer-adaptive assessment that measures achievement in reading, writing, listening, and research. For this study, students' 5<sup>th</sup> grade scores – the year prior to the intervention – served as the pre-test. Fifth grade students receive scaled scores that can range from 1409-1550. Students' 6<sup>th</sup> grade M-STEP scores – after the intervention – were considered the post-test. Sixth grade students receive scaled scores that can range from 1508-1655.

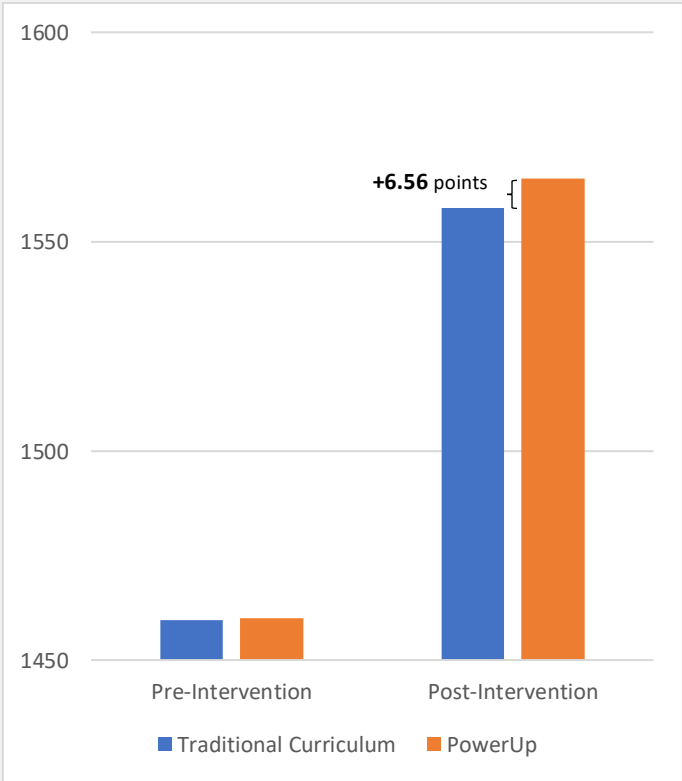
---

<sup>1</sup> Control classes used McGraw-Hill's Corrective Reading or Read to Achieve: Comprehending Content Area Text.

# Results

**Middle school students who used PowerUp during supplemental reading classes significantly outperformed control students on the end-of-year summative state assessment.**

At pretest, students in the treatment and control groups had similar M-STEP scores. Following the intervention, those who used PowerUp scored about 6 points higher on the M-STEP than students in the control group. This difference was statistically significant and equates to a gain of about 20 percentile points (What Works Clearinghouse, 2014).



**Following the intervention, PowerUp students earned significantly higher scores than control students on the end-of-year state assessment.**

**The estimated effect size of using PowerUp was 0.54. This is considered a large effect and is nearly 5 times higher than the average effect size for middle school reading interventions.**

The difference in 6<sup>th</sup> grade M-STEP scores between students who used PowerUp and control students translates to an effect size of 0.54. Effect size describes the magnitude of the difference between treatment and control groups and allows educators to compare outcomes more easily across studies. An effect size of 0.54 is considered large for an educational intervention (Kraft, 2020). For reference, a review by the U.S. Department of Education’s Institute of Education Sciences found a median effect size of 0.11 for middle school reading interventions (Lipsey et al., 2012).

## Discussion

The results of this study demonstrate that using PowerUp positively impacted state test scores for 6<sup>th</sup> grade students who were receiving Tier 2 intervention. Students who used PowerUp during supplemental reading classes significantly outperformed control students on M-STEP, Michigan’s end-of-year state assessment. These findings are particularly noteworthy given that students used PowerUp for just 15 weeks during the second half of the school year.

As reviewed earlier, PowerUp targets word study, grammar, and comprehension skills in the context of reading. In contrast, M-STEP assesses passage-level skills with an emphasis on writing. Therefore, to succeed on M-STEP, PowerUp students needed to not only master content in PowerUp but also generalize their learning to the M-STEP tasks. Results indicate that PowerUp students successfully consolidated and transferred their skills, producing significantly higher scores on M-STEP than control students.

These findings provide strong evidence that PowerUp can effectively support struggling and non-proficient readers at the middle school level. Lexia continues to engage in high-quality research to further build the evidence base for PowerUp.

## Want to Learn More?

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

## References

- Kraft, M. A. (2020). Interpreting Effect Sizes of Education Interventions. *Educational Researcher*, 49(4), 241–253. <https://doi.org/10.3102/0013189X20912798>
- Lipsey, M. W., Puzio, K., Yun, C., Hebert, M. A., Steinka-Fry, K., Cole, M. W., Roberts, M., Anthony, K. S., & Busick, M. D. (2012). *Translating the statistical representation of the effects of education interventions into more readily interpretable forms* (NCSER 2013-3000). Washington, DC: National Center for Special Education Research, Institute of Educational Sciences, US Department of Education.
- Morgan, H. (2016). Relying on high-stakes standardized tests to evaluate schools and teachers: A bad idea. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 89, 67–72. doi:10.1080/00098655.2016.1156628
- National Assessment of Educational Progress (NAEP). (2022). NAEP Report Card: Reading. Retrieved from <https://www.nationsreportcard.gov/reading/?grade=8>.
- What Works Clearinghouse (2014). *Procedures and Standards Handbook* (3<sup>rd</sup> ed.). Washington, DC: What Works Clearinghouse, Institute of Education Sciences, US Department of Education.



Lexia®, a Cambium Learning Group company, is the Structured Literacy expert. For more than 30 years, the company has focused solely on literacy, and today provides science of reading-based solutions for both students and educators. With robust offerings for differentiated instruction, personalized learning, assessment, and professional learning, Lexia helps more learners read, write, and speak with confidence.



[lexialearning.com](https://www.lexialearning.com)

© 2023 Lexia, a Cambium Learning Group company. Lexia®, Lexia® PowerUp®, and other trademarks, names, and logos used herein are the property of Lexia and/or its subsidiaries, and are registered and/or used in the United States and other countries. Additional trademarks included herein are the property of their respective owners. All rights reserved.