



Research Study

National Tutoring Corps for Fearless Learning



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The Edge program powered by Wheeling Country Day School has operated for just over a decade at its Wheeling, West Virginia-based location providing individualized, in-person tutoring to students residing in the local community. When COVID prompted a pivot to virtual instruction, Edge leaders hypothesized that the highly successful programming could have broader utility for traditionally underserved students if embedded into out-of-school time partner locations. To test its hypothesis, Edge hired a third-party research team with expertise in both structured literacy and virtual learning from The University of Central Arkansas. Department of Education faculty Dr. Amy Thompson led the evaluation with support from Dr. Rachelle Miller.

To deliver on its newly-scaled programming, Edge leaders began partnering with higher education institutions across the country to create the first-ever National Tutoring Corps (NTC) of its kind, composed of both pre-service and service teachers enrolled in education coursework. The NTC envisions turning learning differences into learning advantages, transforming weaknesses into strengths so students can learn fearlessly.

Edge is under the direction of a highly certified "Fellow-in-Training" at The Academy of Orton-Gillingham.

Pilot Study

This initial program evaluation analyzes the efficacy of structured literacy tutoring for students with low reading scores. Edge conducted a pilot study in 2021 - 2022 with 3rd and 4th-grade students enrolled at the Boys & Girls Clubs of Greater Southwest Michigan headquartered in Benton Harbor, MI. Members of the Edge National Tutoring Corps (NTC) assessed students remotely using aimswebPlus, an online assessment, data management, and reporting system that provides growth norms for screening and progress monitoring. After analyzing initial scores, tutors provided online multisensory, systematic, cumulative, and intensive instruction using materials based on the Orton-Gillingham methodology. After the intervention, students were post-assessed remotely with aimswebPlus. All analyses are derived from this pre-and-post test data.

The purpose of this pilot study was to examine the following:

- Efficacy of Orton-Gillingham-based tutoring conducted in an online, partner-supported environment for students with reading differences;
- Student growth between pre and post-assessment for students tutored; and
- Benefits of participation in Boys & Girls Club programming or other out-of-school time programs on academic achievement.

Results

Data on the same groups of students was analyzed over 18 weeks to examine the effects of the Orton-Gillingham-based tutoring on their academic achievement. Students received intervention for 30-minutes twice a week. Student achievement was analyzed with raw scores:

3rd Grade		
Tested Area	Pre-Assessment Mean Score	Post-Assessment Mean Score
Composite	294	314 ↑
Vocabulary	140	149 ↑
Reading Comprehension	138	144 ↑
Oral Reading Fluency	31	44 ↑

The following are key findings for 3rd Grade students:

- Third-grade students participating in the study grew in all areas assessed: composite, vocabulary, reading comprehension, and oral reading fluency.
- Students scored 20 points higher in the overall composite mean, nine points in the vocabulary sub-test, six points in the reading comprehension sub-test, and 13 points in overall reading fluency.

4th Grade		
Tested Area	Pre-Assessment Mean Score	Post-Assessment Mean Score
Composite	335	332 ↓
Vocabulary	151	152 ↑
Reading Comprehension	160	147 ↓
Oral Reading Fluency	40	65 ↑

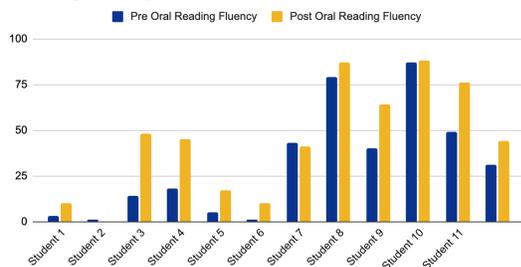
The following are key findings for 4th Grade students:

- Fourth-grade students participating in the study grew in vocabulary and oral reading fluency.
- Students increased 1 point in the vocabulary sub-test mean and 25 points in overall reading fluency.

Overall Trends

Third-grade students grew in all areas studied and both 3rd and 4th-grade students showed growth in vocabulary and oral reading fluency. A more in-depth analysis of the data demonstrated that 14 of the 16 (87.5%) of 3rd and 4th-grade students improved their Oral Reading Fluency score. These results are significant given the intervention focused on phonological awareness and phonics to improve word-level reading.

Comparison: Pre Oral Reading Fluency and Post Oral Reading Fluency Raw Scores



87.5%
of 3rd and 4th-grade
students improved their
Oral Reading Fluency
score

Demographics

Eleven third grade students participated in the pilot study. Seven were female, and four were male. All eleven students were Black in race. Five fourth grade students participated in the pilot study. Four were female, and one was male. All five students were Black in race. Overall, this is a total of 16 students. In those 16 students, 11 were female, and five were male. All 16 students were Black.

Implications

Online-based reading interventions can help children with reading difficulties, especially those in resource-constrained environments that otherwise might not have access to support (Dean, Pascoe, & Roux, 2021).¹ This pilot study found a statistically significant difference between the pre-and post-assessment gains in 3rd-grade composite and oral reading fluency measures, 4th-grade oral reading fluency measures, and the joint 3rd and 4th-grade measure of oral reading fluency, but no significant difference in reading vocabulary or reading comprehension gains. Given the recent research results indicating an increase in reading scores when students are involved in online tutoring (Dean, Pascoe, & Roux, 2021), the Edge program and its NTC is a timely catalyst for developing these opportunities for children with reading difficulties. Under the current standards and accountability movement requirements, schools today are under pressure to show improved student learning outcomes supported by programs that influence continuous improvement. Schools with a high percentage of economically disadvantaged students often experience particular challenges in delivering data reflecting student learning outcomes.

According to the key findings of this program evaluation, the Edge program shows great promise to increase the reading achievement of all students, including economically disadvantaged students.

¹ Dean, J., Pascoe, M., & le Roux, J. (2021). Pilot evaluation of a partner-supported online reading intervention for grade 3-6 children. *Child Language Teaching and Therapy*, 37 (3). <https://doi.org/10.1177/0265659021989400> #

Future Evaluation

This was the first of several studies across Michigan, West Virginia, Ohio, and Pennsylvania being conducted by third-party higher education evaluators in conjunction with out-of-school time organizations and Edge's structured literacy program. In each of these studies, the Edge team wishes to evaluate the overall effectiveness of its reading program in a variety of locations with various partnering organizations and students of different demographics. The data in this first evaluation report indicates that the Edge program and its NTC can positively affect students' academic achievement.



Because the Edge curriculum focuses on phonological awareness and phonics, particularly word-level reading, the team has decided to move to new assessments that will better measure these areas of learning.

Beginning in Summer 2022, the Edge team will replace aimswebPlus and draw from several possible assessments, including: DIBELS 8th Edit, Heggerty Phonological and Phonemic Awareness, the TOWRE-2 Test of Word Reading Efficiency, and/or an anecdotal evaluation post-session developed by a partnering research team at West Virginia University. Additionally, receiving reflections from the teachers and staff at the Benton Harbor-based site could provide invaluable feedback and suggestions for how Edge can continue to improve its programming to meet the needs of students.

Contact Information

Edge is partnering with out-of-school time partners in Michigan, West Virginia, Ohio, and Pennsylvania to bring fearless learning in literacy and math to thousands of students across the region. And, the National Tutoring Corps is actively accepting new tutors to hone skills in structured literacy while gaining real-world experience. To learn more about partnership opportunities with Edge contact Liz Hofreuter (Head of School) at lhofreuter@wcdseduc.com or 304.232.2430.

For questions related to this pilot study and the evaluation methods included therein, contact Dr. Amy Thompson (Associate Professor, University of Central Arkansas) at athompson@uca.edu