



The Power of a Digital Library

How Newsela ELA Closed the Achievement Gap in Ohio



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Authors: Lisa B. Hurwitz, Ph.D. & Apoorva Shivaram, PhD
(learning-research@newsela.com)

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Executive summary

- In a district that historically supplemented English Language Arts (ELA) instruction with classroom magazines, 8th-grade classrooms volunteered to try Newsela ELA as an alternative supplement.
- Newsela ELA classrooms began the school year underperforming compared to classes that continued using classroom magazines, but by the end of the school year, **Newsela users closed the achievement gap.**
- **Newsela users gained four (4) additional months of literacy growth** relative to peers who used the classroom magazines.
- **Newsela ELA was 2x as effective** as the average 8th-grade reading program.
- Results were robust for all students, including both white students and students of color.
- This quasi-experimental study adheres to Every Student Succeeds Act (ESSA) criteria for Moderate - Tier II efficacy evidence.



Introduction

In the United States, only 31% of students graduate middle school as proficient readers, with overall reading achievement on the decline.¹ Reading proficiency is even lower for students of color. For example, only 21% of Hispanic/Latino and only 16% of Black/African American students were proficient on the 2022 National Assessment of Educational Progress. Reading difficulties for all students negatively impact achievement in other subjects, such as social studies and science,³ as well as students' general graduation rates and employment outlook.⁴

The nature of core ELA instruction and traditional instructional materials may play a role in this crisis. To become skilled readers, students need explicit instruction in reading strategies, opportunities to practice these strategies on a variety of texts, and opportunities to develop background knowledge to enhance their comprehension.⁵ ELA curricula have historically emphasized practicing reading skills and strategies at the expense of ensuring students possess all requisite knowledge (e.g., historical context) to fully comprehend the texts that they are reading.⁶ Additionally, traditional instruction and curricula may fall short in the support provided for the vast and varied needs of today's diverse student population. They inconsistently incorporate features to support differentiation, such as scaffolds for skill gaps or language supports for students who may speak English as a second language.⁷ Moreover, traditional classroom texts have historically tended to under-represent people of color or non-dominant narratives.⁸ This is problematic because when students read texts that they consider irrelevant to them as individuals, their reading performance suffers.⁹ Relatedly, textbooks and traditional curricular materials also may feature texts that students consider "boring," which also dampens reading performance.¹⁰ In an attempt to address all of these shortcomings—that is, fill pedagogical gaps, meet students' diverse needs, and support student engagement—teachers commonly seek out supplemental materials.¹¹



Digital literacy platforms may be able to save teachers time by dramatically scaling classrooms' access to interesting, high-quality texts. These texts can be used for reading skill/strategy practice, supporting background knowledge acquisition, or both. Digital platforms are updated more frequently and can contain more content than traditional textbooks or other print resources.¹² Such platforms, therefore, could allow teachers to select texts tailored to students' specific interests, needs, and prior experience. Also, digital platforms often boast a variety of features that can enhance text processing. For example, it is common for these platforms to

include annotating and highlighting functionality, which can allow students to actively engage with text.¹³ Digital platforms also might contain language supports that students can turn on or off as needed.¹⁴ Moreover, digital platforms may be inherently more engaging than analog or text-based resources - that is, more associated with “fun” and “newness”.¹⁵

Given digital tools' potential to support reading growth, the present study evaluated whether Newsela ELA could effectively supplement an ELA curriculum by providing students with access to high-interest, high-quality texts. The participating district historically used a classroom magazine for this purpose but opted into this research study to test if Newsela ELA might be a superior solution.

Newsela ELA is a digital learning platform boasting over 15,000 authentic texts spanning 20+ genres, as well as a growing library of videos and multimedia assets. Informational texts on Newsela ELA are published at five reading levels and are often available in both English and Spanish. Newsela staff use an editorial framework rooted in identity, diversity, justice, action, and rigor when evaluating content, aiming to provide balanced representation in terms of cultural, socioeconomic, racial, gender, and other markers of identity. Newsela ELA users can annotate and highlight texts as they read and complete after-reading, standards-aligned multiple-choice quizzes. Students and teachers across the United States use Newsela ELA to support reading skill growth and background knowledge acquisition.¹⁶ Previous research has demonstrated Newsela ELA's efficacy for all students in general and for students of color specifically.¹⁷ This study is the first to directly compare Newsela's efficacy to that of a similar text-based supplement.

This study was designed to meet Every Student Succeeds Act (ESSA) standards for “Tier II - Moderate” research. As America's primary education law, ESSA provides a framework for evaluating the efficacy of educational programs. Evaluations in the Tier II / Moderate category are well-designed and well-implemented quasi-experimental research studies that allow readers to draw causal inferences about

a program’s impact. These studies compare a treatment group that uses a target program (in this study, Newsela ELA) to a comparable comparison group using an alternate program (in this study, a paper-based classroom magazine).

The study aimed to:

- Describe how Newsela ELA was implemented in participating classrooms.
- Document student learning outcomes—that is, whether students who used Newsela ELA outperformed students who used a traditional classroom magazine to supplement instruction.
- Explore whether outcomes varied as a function of demographic characteristics, including student race-ethnicity.

Method

Research Protocol

All students in this study completed a fall pre-test in August/September and a spring post-test in late March.

Throughout the school year, four (4) classes agreed to supplement their ELA instruction with Newsela ELA (Newsela treatment condition), while two (2) business-as-usual comparison classes continued using their traditional print legacy resources. In all six (6) classrooms, teachers followed a district-written scope and sequence aligned with Ohio state standards for ELA as their core curriculum.

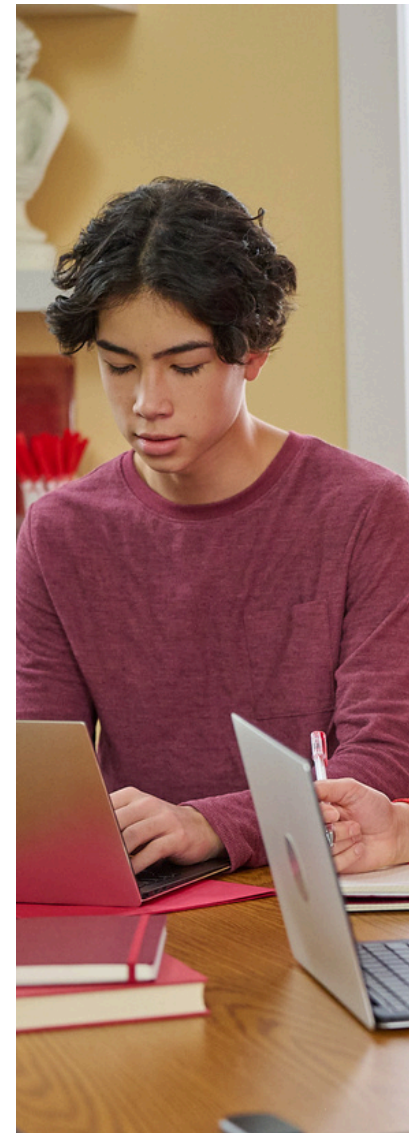
To aid in their use of Newsela ELA, treatment classes participated in two (2) professional learning sessions led by Newsela staff. In September, an initial session provided an introduction to Newsela ELA. In October, a second session focused on how to leverage Newsela to support differentiated instruction.

Teachers across both conditions were observed by researchers in November and March and completed a short survey on their instructional practices in April.¹⁸ Newsela treatment teachers also participated in interviews in November and March focused on better understanding how they leveraged Newsela ELA.

Participants

District

The research study took place in a mid-sized district with nearly 10,000 PK-12 students located about halfway between Dayton and Cincinnati, Ohio. Across the district, approximately 1 in 4 families (27%)





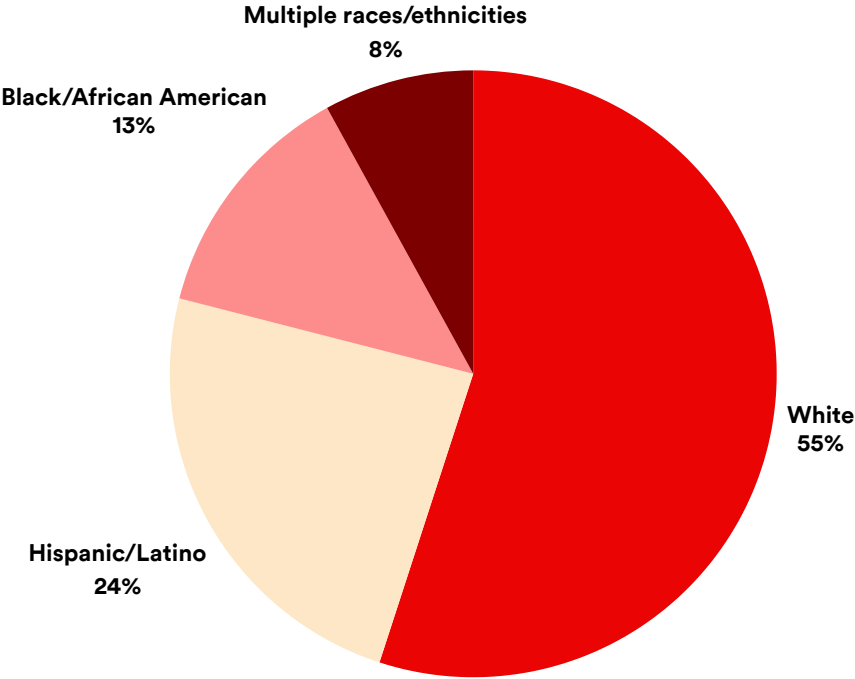
qualify for food stamps or SNAP benefits, and the median household income is \$9,739 below the state average. English is spoken in 92% of households.

Teachers

Six (6) eighth-grade ELA teachers volunteered to be in this study. Four (4) opted to try using Newsela ELA, and two (2) were in the business-as-usual comparison group that used the classroom magazine to supplement instruction. Teacher experience ranged from less than 1 year to more than 30 years (average of 13.8 years of experience). Four (4) teachers had bachelor’s degrees, while the remainder had master’s degrees. Five (5) teachers identified as white, and the remaining teacher identified as Hispanic/Latino. All but one teacher identified as female.

Students

This report focuses on data from 208 eighth-grade students¹⁹, all of whom were enrolled in ELA classes taught by the six (6) teachers described in the previous sub-section of this report. The average student was 14.20 years old. Students represented a range of race-ethnicities, as illustrated on the right. This sample represented greater racial-ethnic diversity than the composition of the district as a whole, where National Center for Education Statistics data reflect that 77% of students are white. Student demographics were similar across both the Newsela treatment and comparison conditions.



Reading Achievement Measure

NWEA’s MAP® Growth™ assessment in reading (MAP) was used to measure reading achievement. This computer-adaptive assessment measures comprehension of informational and literary text and vocabulary. It typically takes students about an hour to complete the assessment. MAP generates a composite RaschunIT (RIT) scale score for each student, which can range from 100 to 350. Nationally, eighth-grade students typically earn scores of around 218 in the fall and 222 in the spring.²⁰

Results

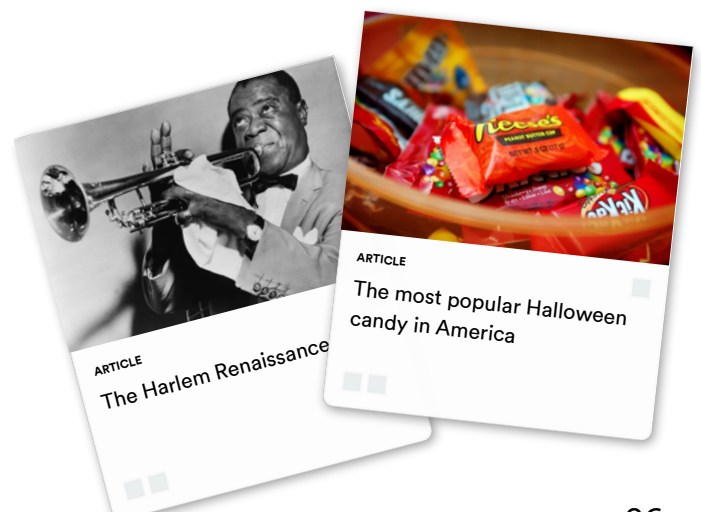
Newsela Implementation

Throughout the year, Newsela treatment teachers adopted an “article of the week” approach to their Newsela ELA implementation. Each week over the course of nearly 18 weeks, teachers asked their students to read one, occasionally two, Newsela texts. On average, students read 21 Newsela texts over the course of the school year.

Newsela Implementation Fast Facts			
Weeks on Newsela	Texts per week	Quizzes per week	Annotations per text
18	1-2	1	2-3

Sometimes teachers assigned their students texts that introduced or reinforced reading skills students were working on as part of their core curriculum, or they assigned texts that provided background knowledge that students needed as a prerequisite for fully engaging with core texts. As an illustration, one teacher described how she leveraged a pre-curated Newsela collection to supplement her instruction: *“There is a whole [Newsela ELA] unit on ‘A Midsummer Night’s Dream’ [with] a lot of different Shakespeare articles, and I used a lot of those to introduce [topics] like poetic meter. [...] There was a biography on Shakespeare’s life that was solid. It pulled [these topics] together as an extension to what we were doing in the class.”*

Other times, teachers assigned their students high-interest or seasonal content simply to give them more reading opportunities. For example, one teacher discussed having recently assigned her students Halloween content during our November site visit and Black History Month content during our March visit.



Teachers also went out of their way to select texts available in both English and Spanish. As of the time of this writing, about 1 in 3 Newsela ELA texts are available in both languages. However, in this study, 57% of articles assigned to multiple classes were available in dual language form.

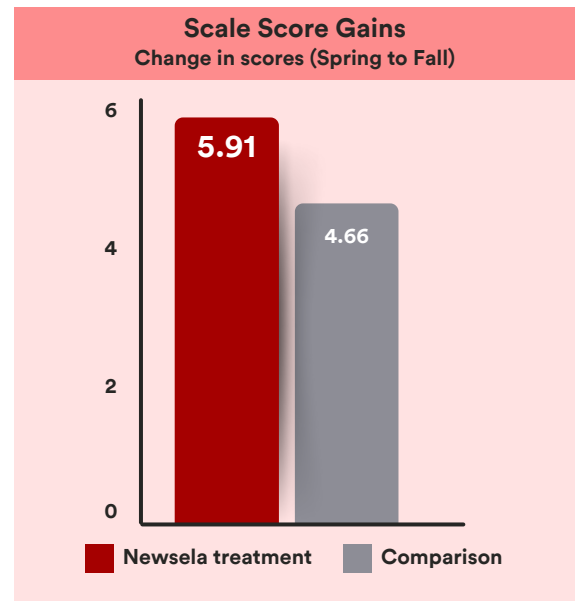
In addition to simply assigning texts, teachers consistently required students to complete Newsela ELA's reading comprehension quizzes, and they often provided students instructions for what to annotate/highlight while reading. The average student completed 91% of post-text quizzes and annotated 2-3 times per text.

One teacher also discussed assigning her students written extension activities, requiring them to pull evidence from Newsela ELA texts: *"I have them do a separate [written] response [to Newsela ELA readings]. They're constantly working through the article and then doing their reflection. They're revisiting and pulling [from the text to support their responses]."*

Reading Outcomes

Use of Newsela ELA closed the achievement gap for participating students.²¹ On their fall pretest, before they began using Newsela, treatment classes scored significantly lower than their peers in comparison classes. However, by the conclusion of the study, Newsela students closed that gap, with both groups demonstrating roughly equivalent performance at post-test.²² In analyses that controlled for alternate factors that might explain these results (e.g., student race-ethnicity), the impact of Newsela was statistically significant.²³ Newsela users grew 24% more than control group peers - the equivalent of a 4.39 percentile advantage for Newsela users.²⁴

To interpret the practical significance of this effect, we drew from guidelines published by the US Department of Education's Institute of Education Sciences²⁵ and updated in the journal *Educational Researcher*.²⁶ In general, this guidance suggests calculating a quantitative measure of a program's impact, known as an effect size, and comparing that against normative benchmarks. Annually, in the absence of special intervention, we would expect eighth-grade students like those in the control group to exhibit around .26 standard deviations of reading growth. For this study, we calculated that Newsela resulted in an additional .11 standard deviations of growth over and above this.²⁷ This means that Newsela users demonstrated the equivalent of about **four (4) months of additional reading growth**



when compared to their peers in the control group.²⁸ Educational interventions for eighth-grade students typically only result in about .06 standard deviations of extra growth.²⁹ As such, **Newsela was nearly 2x as effective as the average middle school reading program.**

Additional analyses explored whether these effects varied for different sub-groups. Results revealed that all students benefited from Newsela ELA. Specifically, **Newsela ELA was equally impactful for students of color and white students.**³⁰

Conclusion

Newsela ELA drove considerable growth for the eighth-grade students in this study. Participants began the year underperforming relative to peers but were able to close that achievement gap in a single school year thanks to Newsela ELA use—achieving four (4) months of additional reading growth. It can be challenging to accelerate reading achievement among secondary students, as gaps in student skills or background knowledge can compound over time.³¹ As such, the impact of new reading programs on middle school students historically has been small.³² The effects achieved in this study are, therefore, all the more impressive: Newsela ELA was 2x as effective as the average middle school reading program.

Given this study's causal design, where the only major instructional difference between classes was the use of supplemental resources—either Newsela ELA or a more traditional classroom magazine—it is reasonable to attribute the gains observed in this study to Newsela ELA. Newsela ELA boasts a robust digital content platform that allows teachers to select texts tailored to their core curriculum and their students' individual needs and interests. This degree of personalization in text choice was all the more powerful when coupled with student access to supportive features like tools for annotation and highlighting and quizzes that allowed students to practice comprehension skills and strategies.

The K-12 educational community is actively attempting to combat years of reading difficulties impacting all student groups, with particular concern for achievement rates for students of color. This study demonstrates the value of a digital platform like Newsela ELA in addressing skill and knowledge gaps and preparing students of all races to become skilled readers.



Endnotes

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18. Due to scheduling conflicts, one treatment teacher was only observed and interviewed in November and was unavailable in March. All the rest participated in two classroom observations.
19. Data from 10 students were removed from the analytic dataset for the following reasons: no fall pretest data (3), implausible outliers with scores greater in magnitude than +/-3 standard deviations from the mean at fall pretest (3) or in spring-to-fall gains (2), or greater in magnitude than +/-4 standard deviations from the mean at posttest (2).

20. <https://teach.mapnwea.org/impl/MAPGrowthNormativeDataOverview.pdf>
21. $M(\text{Treatment}) = 216.04$, $SD(\text{Treatment}) = 11.50$; $M(\text{Comparison}) = 219.67$; $SD(\text{Comparison}) = 11.01$;
 $t(185.79) = -2.30$, $p = 0.02$.
22. $M(\text{Treatment}) = 221.95$, $SD(\text{Treatment}) = 11.35$; $M(\text{Comparison}) = 224.33$; $SD(\text{Comparison}) = 11.07$;
 $t(183.62) = -1.51$, $p > .05$
23. The primary analytic model in this study regressed gain score on condition, controlling for student race (White vs. students of color) and age (older vs. younger students as identified via a median split). We also included condition by race and by age interactions (results described later). This yielded a significant treatment effect, $b = 4.21$, $t(202) = 1.72$, $p = .015$. A gain score was determined as a less biased outcome variable than spring scores due to the significant differences in performance noted at pretest (see Jamieson, J. (2004). Analysis of covariance (ANCOVA) with difference scores. *International Journal of Psychophysiology*, 52(3), 277-283.)
- In alternative models, a multi-level model was fit that accounted for the fact that condition assignment was at the teacher level. Results were qualitatively similar. However, the model was singular, with no variance at the teacher level. As such, we determined that a more parsimonious linear regression model would be more appropriate.
24. Using procedures outlined by [What Works Clearinghouse](#), we translated the effect size documented in this study into an improvement index (U3), which is a measure of the difference between experimental conditions expressed in terms of percentile ranks. $U3 = 0.54387$ or 54.39 percentile. This indicates that a control student scoring at the 50th percentile would have earned a percentile rank of 54.39 had they been in a Newsela class.
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27. Study-specific effect size calculated via formula set forth in Morris, S. B. (2007). Estimating effect sizes from the pretest-posttest-control group designs. *Organizational Research Methods*.
<https://doi.org/10.1177/1094428106291059>
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30. The condition x race interaction term in the analytic model was nonsignificant ($b = -2.83$, $t(202) = -1.48$, $p > .05$). Likewise, the condition x age interaction term was also nonsignificant ($b = -2.90$, $t(202) = -1.53$, $p > .05$).
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