



The impact of Newsela on at-risk 7th and 8th grade students

A summer learning study



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Executive Summary

- This study was designed to meet [ESSA standards for “Promising” research](#).
- Students who received low scores on their state end-of-year reading assessment were invited to participate in a 3-week summer learning program.
- Participants worked through customized [Newsela Bridge Units](#), covering literacy skills such as synthesizing information to create new understandings, evaluating details to determine key ideas, and using text evidence to support responses.
- Students exhibited a statistically [significant 5.25% increase in vocabulary](#) performance.
- Overall, students demonstrated a more modest 3% increase in comprehension.
- Students using Newsela with more experienced middle school ELA teachers exhibited a more pronounced [11% increase in comprehension](#). If the program had continued with students learning at the same rate, they would have met Newsela national averages and [closed the gap in terms of comprehension performance relative to other Newsela users in another 3-4 weeks](#).



“I’m just glad I did summer school, because I had heard of Newsela, but didn’t know all of the different things you could do with it. And now I’m like, ‘Oh! I want to use this more in the classroom.’”

~ Summer school teacher

Introduction

Research dating back over a century documents summer learning “loss”, “slide”, or “setback” — a phenomenon where, over the summer, students forget some of the skills they worked hard to master the previous school year.¹ Seminal research suggests loss is proportionately greater at the secondary level² and for students who exhibited below-level performance during the previous school year.³

In analyses conducted shortly before the COVID-19 pandemic, NWEA estimated that today’s students average about 1-2 months of loss in reading every summer, with considerable variability between students depending on a variety of factors, such as whether students are able to attend high quality summer learning programs.⁴ This year, educational policymakers nationwide have been concerned that summer learning loss would exacerbate any lost learning opportunities induced by COVID, prompting funding for new summer learning programs.⁵

Many prior summer learning programs have succeeded in preventing summer loss even for at-risk readers.⁶ One review found that for traditional summer learning programs leveraging books and other print-based materials, learning outcomes tend to be greater for reading comprehension than vocabulary.⁷ This may be because the traditional programs included in the review did not prioritize vocabulary learning opportunities.⁸ Another review aimed at better understanding the impact of technology-based learning programs found larger effects for vocabulary than other literacy outcomes,⁹ possibly because educational technology programs can include dictionary-like features to promote vocabulary learning with or without explicit, teacher-driven instruction and have the functionality to predict or track the words students are exposed to over the course of the educational program.



In the present research study, we hypothesized that below-level readers in 7th and 8th grade would exhibit vocabulary and comprehension gains following intensive use of Newsela in a 3-week summer learning program. Newsela is a digital instructional content platform offering teachers engaging, standards-aligned lessons and content materials. Newsela offers a robust content library with over 15,000 informational texts at five reading levels and fiction texts, as well as multimedia content. Texts include formative assessment opportunities, such as standards-aligned multiple choice quizzes measuring text comprehension. Newsela also has a vocabulary instruction tool called “Power Words”, where readers are exposed to clickable student-friendly definitions and pronunciations of Tier II vocabulary (i.e., high frequency academic vocabulary terms), along with a pair of accompanying multiple choice questions for each target word. Students collect practiced words on a “Word Wall”. Previous research has demonstrated Newsela’s positive impact on general reading ability in the context of regular school-year use.¹⁰

This study was designed to adhere to “Promising” standards set forth by the Every Student Succeeds Act (ESSA). ESSA stipulates that educational programs purchased with certain federal funds (e.g., Title I) be backed by sound efficacy evidence. This evaluation is a well-designed and -implemented correlational study with statistical controls for selection bias, meeting ESSA’s rigorous standards for evidence-based interventions. The ESSA framework gives additional value to studies that include a control or comparison group that does not use the focal learning program (in this case, Newsela). In this study, we determined it would be more ethical to allow ALL participants to use Newsela. Otherwise, some students would not have been set up to succeed, because the district was launching a completely new summer program and did not have an alternate resource that “control” classes could have used if denied Newsela.

REAL-WORLD PHENOMENA Relevant examples of scientific phenomena to get students asking questions and thinking like scientists.	PRIMARY SOURCES First-hand accounts of important people, events, and time periods.	CAREER PROFILES Stories that provide a glimpse into a range of industries and career paths.	EXPLAINERS Overviews of key concepts to build background knowledge.
SPEECHES Eloquent prose from famed orators, made accessible to all readers.	GEOGRAPHY PROFILES Topographical, social and climatic overviews of regions, countries, states, and cities.	PRO/CON Paired texts to expose students to differing perspectives on key societal issues.	STUDENT VOICES Original thought pieces and hot-takes from Newsela’s student readers.
FICTION Short-form fiction stories to engage students and drive literacy skills.	BIOGRAPHIES The life stories of known and unknown people, both historical and living.	MULTIMEDIA CONTENT Instruction-ready videos, timelines, political cartoons, data sets, and more.	ESSAYS From political thought pieces on the issues of the day to reflections on history.
REFERENCE MATERIALS Sources of foundational information to support all subjects.	PROCEDURALS Procedurals ranging from science experiments to crafts and home economics.	COURT OPINIONS Complete summaries of key court decisions from American history.	Q&As Interviews with compelling figures, in Q&A format.
OPINIONS Op-ed articles to spark discussion, debate, and understanding.	ANALYSES Ranging from reviews of popular books and movies to critical analyses of philosophy or literature.	NARRATIVE NONFICTION Elegant writing, character building, innovative structure - and best of all, it really did happen.	MYTHS, LEGENDS, AND FOLKTALES Classic tales from around the world ranging from origin stories to fables used to teach a moral.

Newsela content spans 20 genres

Newsela offers a robust content library with over 15,000 informational texts at five reading levels and fiction texts, as well as multimedia content.

Method

RESEARCH PROTOCOL

The participating district invited rising 8th and 9th grade students with low 7th and 8th grade state reading test scores to participate in a summer learning experience. Teachers received three hours of Newsela training in advance of the program.



The program itself lasted for 3 weeks, with students receiving 90 minutes of ELA instruction per day. On the first and last day of the session, students completed a pre- and post-assessment consisting of pre-existing Newsela “Power Word” vocabulary questions and comprehension quizzes. Newsela researchers visited each participating campus to conduct classroom observations and teacher interviews designed to better understand program implementation and collect data on teachers’ backgrounds.

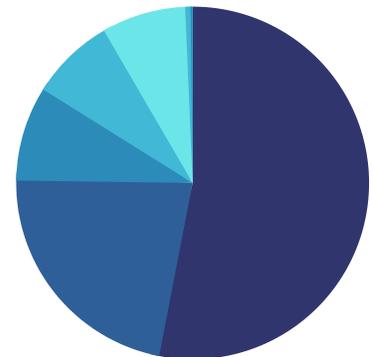
PARTICIPANTS

Newsela partnered with a large district in north central Texas for this study. The figure below shows their demographic breakdown. The district is slightly more diverse than Texas state averages.

The intervention was delivered by 6 teachers. Two (2) teachers were experienced middle school ELA teachers with 5+ years of teaching experience, 2 were novice middle school ELA teachers with one year of teaching experience, and 2 were experienced elementary teachers with 15+ years of teaching experience.

Because this was an optional summer learning program just for students with poor 7th and 8th grade state reading test performance, the program itself was fairly small. Forty-one (41) students (51% 7th grade) participated in the full program with complete pre- and post-test data.

Demographic breakdown of district's students



- 55% White
- 23% Hispanic
- 9% African American
- 8% Asian
- 8% Multiracial
- .5% American Indian
- .2% Pacific Islander

28%

Economically Disadvantaged



NEWSELA UNITS

Newsela adapted previously created “Texas Bridge Units” for use in this study. Bridge Units were developed to spiral key concepts and skills for summer and back-to-school use cases in order to maximize students’ exposure to grade-level concepts.

The unit targeted the following standards-based reading skills:

Generate questions before, during, and after reading to deepen understanding and gain information

Make and correct or confirm predictions using text features, characteristics of genre, and structures

Create mental images to deepen understanding

Make connections to personal experiences, ideas in other texts, and society

Evaluate details read to determine key ideas

Synthesize information to create new understanding

Describe personal connections to a variety of sources, including self-selected texts

Paraphrase and summarize texts in ways that maintain meaning and logical order

The unit was structured so that students practiced target literacy skills while reading high-interest texts. Most days, lessons provided students the opportunity to choose between two texts: one fiction and one nonfiction option. Lessons included daily teacher-facing “before reading”, “during reading”, and “after reading” activity suggestions centered around a focal reading skill. Lessons also included several ELA and SEL extension activity suggestions and differentiation strategies to help teachers maximize their instructional time and tailor instruction to their individual classes.

ASSESSMENTS

We leveraged existing Newsela content to create custom assessments for pre- and post-test.



Vocabulary

The session contained two mandatory fiction texts featuring 8 vocabulary words – a mix of grade 5 and grade 7 Tier II terms. Because all students present when these texts were assigned would gain significant exposure to these words, we determined that they were suitable choices for our pre- and post-assessments to gauge vocabulary learning.

On the Newsela platform, each vocabulary word is assessed via two different multiple choice questions. We randomly divided these questions between the pre- and post-test.



Vocabulary words featured

dispersed	precision
fascinating	eternity
translated	embrace
resplendent	consumed

Comprehension

Our pre- and post-tests each contained two non-fiction Newsela texts and corresponding quizzes. These quizzes primarily assessed students' ability to identify main ideas and key details, skill areas heavily emphasized in the summer program. Newsela historical data indicated that the quizzes we selected were not of equivalent difficulty. We therefore transformed students' raw scores to account for uneven difficulty. Scores of 300 equal performance on par with Newsela national averages across all assessment texts. Lower scores reflect performance below the Newsela national average, and higher scores reflect above average performance. Unsurprisingly, the average score among this population of at-risk readers at pretest was 240 (Range = 125 -350), falling about 20% below the Newsela national average.

Results



Students logged in to Newsela an average of 10.66 days over 15 days (3 wk period).



They completed 3.55 quizzes per week on average.



Thirty-seven percent completed Power Word questions.

NEWSELA IMPLEMENTATION

During our site visits, we noted that overall implementation fidelity was high, with experienced middle school teachers demonstrating particularly strong instructional practices. In all observed classes, teachers were using the target unit.

In 63% of classes observed, teachers engaged in the recommended “before reading” activity, and in 88% of classes, teachers engaged in the recommended “after reading” activity. On average, students read 1.5 of the 2 target texts available in each instructional set used during observations. Teachers complemented the structure of each lesson, which contributed to strong implementation and ease of planning.

Two teachers (one experienced middle and one experienced elementary teacher) also reported regularly checking and implementing the unit’s extension activities to provide students with more practice opportunities and engaging in class discussion around challenging vocabulary within texts. More experienced middle school teachers also engaged in more regular checks for understanding extending beyond the program’s written instructions.



“The biggest thing I really like is the structure. You have the ‘before reading’, ‘after reading’. You have this expectation of what you’re going to do everyday, and you come in and you do it.”

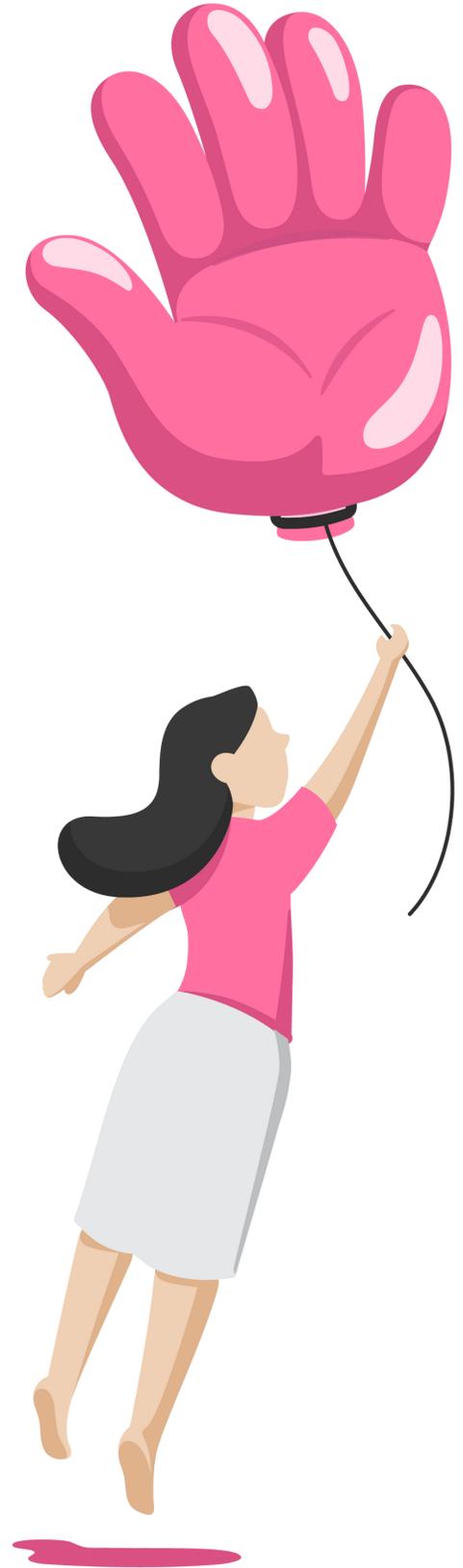
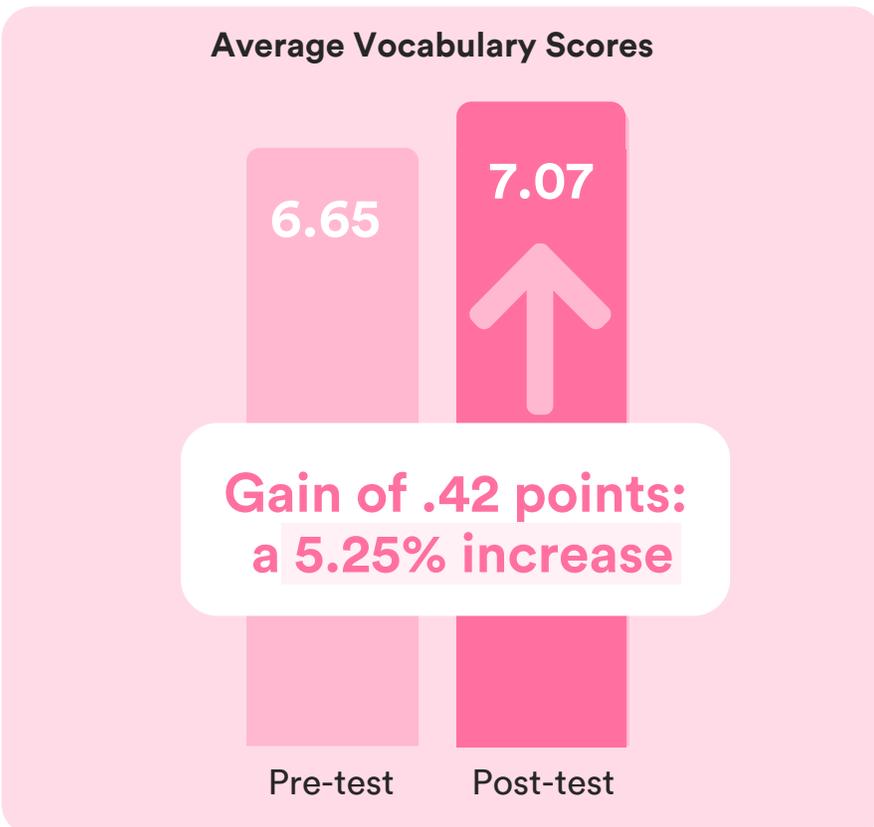
Results

LEARNING OUTCOMES

On average, students **gained a statistically significant .42 points in vocabulary – the equivalent of a 5.25% increase.**¹¹ Students also gained 7.2 points in comprehension – not statistically significant but directionally positive.

Given our observations about implementation varying somewhat between teachers, we explored in follow-up analyses whether outcomes varied as a function of teacher experience. Vocabulary gains were robust across classrooms. For comprehension, **students of experienced middle school ELA teachers gained 27 points – an 11% increase.**

Had students continued learning at that rate, they would have met Newsela national average performance levels and **closed the gap in terms of comprehension performance relative to other Newsela users after an additional 3 to 4 weeks of instruction.**



Conclusion



“I’d fall flat on my face probably without Newsela this summer. I don’t know what I would have done without it. I appreciate it, because it gives me direction.

~ Summer school teacher

The at-risk middle school students in this study would have been prime candidates for summer slide in the absence of any intervention.^{12 13}

[Newsela use not only helped to prevent slide for participants, but promoted vocabulary and comprehension growth for many students.](#)

Driving vocabulary learning, Newsela’s Power Words feature provided rich exposure to important Tier II vocabulary terms that students could practice with their teachers or independently could see used in context, click for pronunciation and definitions, or complete multiple choice practice activities. Collectively, these opportunities for exposure likely prompted the vocabulary gains observed in this study. Newsela also supported meaningful and engaging comprehension practice and learning opportunities. One teacher commented on the high quality of the standards chosen for the unit: [“I thought the different concepts we’re looking at are kind of targeting some of the major concepts that we target \[during the year\].”](#)

Another noted that the content itself was engaging for students, saying the unit featured “really good topics that are relevant to their [students’] age bracket”.

Comprehension outcomes, therefore, are likely attributable to Newsela’s turnkey lessons featuring important skills and high-interest texts. Given that attendance was somewhat inconsistent (as is typical of summer learning programs¹⁴), these vocabulary and comprehension outcomes are all the more remarkable.

Learning outcomes may have been greater in both domains had attendance been higher or the intervention a few weeks longer. Again, we predict that below-level readers taught by experienced middle school teachers would have achieved national average performance levels with an additional 3-4 weeks of instruction – aligned with other recommendations for summer learning programs to span 5 or more weeks for maximum learning.¹⁵

Regardless of timing, summer learning staff might benefit from occasional opportunities to connect and share best practices – either in person or using tools like the [Newsela Community](#). Experts have pointed to the value of these kinds of community-building opportunities,¹⁶ and we suspect that in the present study, the less experienced teachers could have benefited from learning strategies from their more experienced colleagues.

Nevertheless, the outcomes of the present study should be celebrated. Participants will be entering 8th and 9th grade with a reinforced and in some cases more robust toolkit of literacy skills, increasing their preparedness for scholastic success in the year ahead.



1 Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, 66(3), 227-268. <https://doi.org/10.3102/00346543066003227>

2 *ibid*

3 Heyns, B. (1987). Schooling and cognitive development: Is there a season for learning? *Child Development*, 58(5), 1151-1160. <https://doi.org/10.2307/1130611>

4 Kuhfeld, M. (2019). Surprising new evidence on summer learning loss. *Phi Delta Kappan*, 101(1), 25-29. <https://doi.org/10.1177/0031721719871560>

5 see, for example, Gans, F., & Vaznis, J. (2021, April 30). Mass. commits over \$70 million for summer programs to combat learning loss during the pandemic. *Boston Globe*. <http://bostonglobecom>

6 see, for example, Christodoulou, J. A., Cyr, A., Murtagh, J., Chang, P., Lin, J., Guarino, A. J., Hook, P., & Gabrieli, J. D. E. (2017). Impact of intensive summer reading intervention for children with reading disabilities and difficulties in early elementary school. *Journal of Learning Disabilities*, 50(2), 115-127. <https://doi.org/10.1177/0022219415617163>; Christodoulou, J. A., Hurwitz, L. B., Hook, P. E., Wade, K., Arechiga, X., Camacho Torres, Y., & Gabrieli, J. D. E. (2021, July). Summer reading intervention outcomes among at-risk readers. Paper presented at the Society for the Scientific Study of Reading Annual Meeting, Australia.

7 Kim, J. S., & Quinn, D. M. (2013). The effects of summer reading on low-income children's literacy achievement from kindergarten to grade 8: A meta-analysis of classroom and home interventions. *Review of Educational Research*, 83(3), 386-431. <https://doi.org/10.3102/0034654313483906>

8 *ibid*

9 Hurwitz, L. B. (2019). Getting a read on Ready To Learn media: A meta-analytic review of effects on literacy. *Child Development*, 90(5), 1754-1771. <https://doi.org/10.1111/cdev.13043>

10 Empirical Education. (2017). Newsela: Impact on California schools. *Empirical Education*.

11 Using the *rstatix* package in R, a repeated measures ANOVA with Teacher specified as a between subjects factor found a significant intervention effect, $F(1, 36) = 8.84, p = .005, \eta^2 = .197$.

12 Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, 66(3), 227-268. <https://doi.org/10.3102/00346543066003227>

13 Heyns, B. (1987). Schooling and cognitive development: Is there a season for learning? *Child Development*, 58(5), 1151-1160. <https://doi.org/10.2307/1130611>

14 Augustine, Catherine H., Jennifer Sloan McCombs, John F. Pane, Heather L. Schwartz, Jonathan Schweig, Andrew McEachin, and Kyle Siler-Evans, Learning from summer: Effects of voluntary summer learning programs on low-income urban youth, Santa Monica, Calif.: RAND Corporation, RR-1557-WF, 2016. As of July 31, 2021: https://www.rand.org/pubs/research_reports/RR1557.html

15 Schwartz, Heather L., Jennifer Sloan McCombs, Catherine H. Augustine, and Jennifer T. Leschitz, Getting to work on summer learning: Recommended practices for success, 2nd Ed., Santa Monica, Calif.: RAND Corporation, RR-366-1-WF, 2018. As of July 31, 2021: https://www.rand.org/pubs/research_reports/RR366-1.html

16 Mizelle, H. (2010). Why professional development matters. *Learning Forward*.