

A HOW-TO GUIDE FOR EDUCATION LEADERS

LOCK IN ESSER FUNDS FOR LITERACY

Define and replicate evidence-based interventions with large print books



OVERVIEW

The United States (U.S.) federal government has ushered in unprecedented Elementary and Secondary School Emergency Relief (ESSER) funds to support education. The latest round from the American Rescue Plan (ARP) Act requires districts to reserve 20 percent of such funds to mitigate learning loss through evidence-based interventions and other spending plans mandated by the U.S. Department of Education. Despite this guidance, many school and district administrators are seeking additional information about both evidence-based interventions and what types of instructional materials qualify for the new funding.

To help education leaders address these questions, Thorndike Press, from Gale, has partnered with Project Tomorrow® to create this guide. It is intended to help district and school leaders define evidence-based interventions and tiers, leverage examples to duplicate outcomes, and replicate successes from a prior large-scale efficacy study on large print books in K-12 classrooms.

EVIDENCE-BASED INTERVENTIONS

The Every Student Succeeds Act (ESSA) outlines four tiers of evidence-based interventions:

Tier 1: Strong Evidence

Supported by one or more well-designed and well-implemented randomized-control experimental studies.

Tier 2: Moderate Evidence

Supported by one or more well-designed and well-implemented quasi-experimental studies.

Tier 3: Promising Evidence

Supported by one or more well-designed and well-implemented correlational studies (with statistical controls for selection bias).

Tier 4: Demonstrates a Rationale

some effort underway by a State Education Agency (SEA), Local Education Agency (LEA), or outside research organization to determine their effectiveness.



EFFICACY STUDY ALIGNMENT TO EVIDENCE-BASED INTERVENTIONS

Project Tomorrow designed and implemented a nationwide study to evaluate the efficacy of students reading large print-formatted books on their reading engagement and achievement levels. The study had two arms: a quasi-experimental study with a purposeful selection of students in the control and treatment groups, and a correlational study which examined the impact of the intervention on a larger sample. The large print format, as supported by the Thorndike Press titles, encompasses several key characteristics, including larger font size than standard edition books; enhanced spacing between letters, words, and sentences; clearer contrast between text and the background color of the page; and fewer words and lines per page within the books.









While the large print format has a strong legacy of supporting increased reading engagement and proficiency for adults, most notably those with visual challenges, this efficacy study was on the role of large print text with children and youth. The results from this efficacy study are outlined and reported in our 2019 white paper, *Advancing Literacy with Large Print*. The global pandemic heightened the need for interventions such as large print books that can address both the resulting learning loss and declines in student engagement in schoolwork.

➔ You can Download the full white paper at [gale.com/literacy-study](https://www.gale.com/literacy-study)

SUMMARY OF TIER 2 FINDINGS

Based upon U.S. Department of Education’s four tiers of evidence-based interventions, Project Tomorrow determined that the quasi-experimental arm of the study qualifies as producing Tier 2: Moderate Evidence.

The results of the review are summarized in the following chart, which identifies the determining characteristics of the Tier 2 evidence and how this study meets those requirements.

TIER 2 CRITERION	EVIDENCE	REQUIREMENTS MET
 <p>RESEARCH DESIGN</p>	<p>Quasi-experimental</p> <p>Control and treatment groups not random, but purposeful</p>	<p>The study included a quasi-experimental study component with the identification of control and treatment groups. The studied intervention was reading a large print formatted book.</p> <p>The control group consisted of students reading a large print book. The treatment group consisted of same grade level students reading the same title in a standard print book.</p>
 <p>BASELINE EQUIVALENCE</p>	<p>Parity in terms of control and treatment group participants</p>	<p>While the treatment and control groups were not randomly assigned, they were generally equivalent in terms of reading the same book title and being in the same grade level at the same school. Both groups included students across a spectrum of reading abilities and competencies.</p>
 <p>SIGNIFICANCE</p>	<p>Statistically significant favorable effect by outcome</p> <p>No significant unfavorable or negative effect by outcome</p>	<p>The study results, published in 2019, document the demonstrated relationship between the use of the Thorndike Press large print titles and student outcomes in reading engagement and comprehension. Further discussion on these findings below.</p> <p>The intervention positively affected students in the treatment group as described. The affect was statistically significant for the treatment group. Further discussion on these findings below.</p> <p>We did not observe or record any overriding negative effects from the intervention.</p>
 <p>SAMPLE SIZE</p>	<p>Large study sample of a minimum of 350 participants</p>	<p>The overall study sample included 1,696 students in grades 3–12 and 56 teachers and librarians.</p> <p>Within the quasi-experimental component of the study, 423 students were in the treatment group and 428 students were in the control group.</p>
 <p>MULTI-SITE SAMPLE</p>	<p>At least two sites</p>	<p>Fifteen (15) elementary, middle, and high schools from across the United States were part of this study during the 2018–19 school year.</p> <p>Five of the study schools participated in the quasi-experimental arm of the study.</p>
 <p>SAMPLE OVERLAP</p>	<p>Addressing students and setting or students or setting</p>	<p>Populations addressed:</p> <ul style="list-style-type: none"> • Elementary, middle, and high school students • Underserved students of color <p>Settings addressed:</p> <ul style="list-style-type: none"> • Urban, suburban, and rural settings • Elementary, middle, and high school settings • Multiple states <p>The study schools were selected strategically to support the generalizability of the study findings as an effective reading intervention for underperforming or low readers. All 15 schools qualified as Title 1 schools. Ten of the 15 schools served a student population that was at least 50% African American/Black and/or Hispanic/Latinx. Nine of the schools were located in urban communities, 4 in suburban communities, and 2 in rural locations.</p> <p>Within the quasi-experimental arm of the study, the populations addressed were middle and high school students in urban and rural settings.</p>

DETAILED FINDINGS FOR TIER 2 EVIDENCE

The efficacy study published in 2019, *Advancing Literacy with Large Print*, documented many important findings and insights that can help school educators learn how to effectively leverage large print formatted books to support student engagement in reading and improved reading comprehension scores.

Relative to the determination that the quasi-experimental arm of the study qualifies with Tier 2 Moderate Evidence, the statistically significant outcomes relative to students' improved reading mindset and self-efficacy are described as follows:

OUTCOME: Improved reading mindset and self-efficacy

Intervention:

- Students in the treatment group were provided with classroom text in a large print format for their reading activities.
- Students in the control group were provided with the same classroom text in a traditional print format.

Evidence of the effect of the intervention:

- Students reported increased confidence in their reading abilities as a result of their reading experience.
 - 41% of the students in the treatment group
 - 25% of the students in the control group
- Students reported a belief that they had increased reading comprehension as a result of their reading experience.
 - 55% of the students in the treatment group
 - 45% of the student in the control group
- Students reported that they read more outside of school as a result of their reading experience.
 - 48% of the students in the treatment group
 - 38% of the students in the control group

Evidence of the relationship between the intervention and the effect:

- The students in the control and treatment groups at each school read the same book with equivalent classroom support and learning activities. The only variable was the format of the book: large print or traditional print.
- Outcomes were even higher for a smaller cohort of students who self-identified as not liking reading.
- Teachers report that the use of the large print books were especially effective for their students reading below grade level with over two-thirds of the study teachers saying the large print increased student confidence, minimized reading distractions and created less anxiety for their students than traditional reading formats.

SUMMARY OF FINDINGS FOR TIER 3 EVIDENCE

Based upon U.S. Department of Education’s four tiers of evidence-based interventions, Project Tomorrow has determined that the correlational arm of the study qualifies as producing Tier 3: Promising Evidence.

The results of the review are summarized in the following chart, which identifies the determining characteristics of the Tier 3 evidence and how this study meets those requirements.

TIER 3 CRITERION	EVIDENCE	REQUIREMENTS MET
 RESEARCH DESIGN	Correlational	The study measured the relationship between the use of large print formatted books and various outcomes including student self-efficacy as a reader and reading comprehension results.
 BASELINE EQUIVALENCE	Statistical controls for selection bias	The large sampling size of the study provided opportunities to ensure that bias was not a factor in the determination of the outcomes.
 SIGNIFICANCE	Statistically significant favorable effect by outcome No significant unfavorable or negative effect by outcome	The study results, published in 2019, document the demonstrated relationship between the use of the Thorndike Press large print titles and student outcomes in reading engagement and comprehension. Further discussion on these findings below. We did not observe or record any overriding negative effects from the intervention.
 SAMPLE SIZE	Large study sample of a minimum of 350 participants	The overall study sample included 1,696 students in grades 3–12 and 56 teachers and librarians.
 MULTI-SITE SAMPLE	At least two sites	Fifteen (15) elementary, middle, and high schools from across the United States were part of this study during the 2018–19 school year.
 SAMPLE OVERLAP	Addressing students and setting or students or setting	Populations addressed: <ul style="list-style-type: none"> • Elementary, middle, and high school students • Underserved students of color Settings addressed: <ul style="list-style-type: none"> • Urban, suburban, and rural settings • Elementary, middle, and high school settings • Multiple states The study schools were selected strategically to support the generalizability of the study findings as an effective reading intervention for underperforming or low readers. All 15 schools qualified as Title 1 schools. Ten of the 15 schools served a student population that was at least 50% African American/Black and/or Hispanic/Latinx. Nine of the schools were located in urban communities, 4 in suburban communities, and 2 in rural locations.

DETAILED FINDINGS FOR TIER 3 EVIDENCE

Relative to the determination that the correlational arm of the study qualifies with Tier 3 Promising Evidence, the statistically significant outcomes relative to students' improved reading self-efficacy and academic outcomes are described as follows:

OUTCOME #1: Improved reading self-efficacy

Intervention:

- Students were provided with large print formatted reading books as a replacement for their traditionally formatted books.

Evidence of the effect of the intervention:

- 56% of students in grades 3–12 said that they enjoyed reading more when they were able to read a large print book. This is significant since two-thirds of the students in the study said prior to the intervention that they did not like schoolwork reading.
- Middle school students' stress and anxiety about reading decreased by 43% as a result of the access to the large print book.
- 54% of high school students in the study said that they read longer with the large print text than with traditionally formatted books.
- 69% of elementary students said they were better able to stay focused when reading and were not as easily distracted compared to other reading experiences.

Evidence of the relationship between the intervention and the effect:

- Both teachers and students reported strong positive attitudes about the use of large print books, even though most did not have any prior experience with larger print format.
- Both students and teachers endorsed the idea of having greater access to more large print books in school.
 - o 55% of students said they would like to read more large print books at school.
 - o 80% of teachers said they would recommend large print books to another teacher.
 - o 95% of teachers said they would continue to use large print books in their classroom.

OUTCOME #2: Improved student achievement

Intervention:

- Students were provided with large print formatted reading books as a replacement for their traditionally formatted books.

Evidence of the effect of the intervention:

- The class Lexile average within an elementary classroom increased 120 points bringing the overall class from below grade level to grade level in reading.
- Fifth grade students reading a sixth-grade reading level book scored an average of 90% on their reading comprehension quiz for the book *Hatchet*. Prior average reading comprehension was 74%.
- Striving middle school readers increased their Lexile reading levels by 2 to 3 times the recommended average growth for students in grades 6–8.

Evidence of the relationship between the intervention and the effect:

- 76% of teachers reported that as a result of the large print books their students were retaining more information about what they had read.
- 75% of teachers noted a relationship between the large print texts and their students' increased reading comprehension.
- The examination of student achievement outcomes utilized the tools teachers were already using in their classroom to assess student reading competency such as Accelerated Reader quizzes, Achieve 3000 scores, NWEA MAP scores, and other typical classroom and comprehension assessment tools.

REPLICATING THE EFFICACY STUDY IN YOUR SCHOOL(S)

Per the ESSA guidance on the four tiers of evidence-based interventions, the defining characteristics of the Tier 3 evidence include:

- A well-designed and well-implemented correlational study
- Collect and analyze data to demonstrate relationship between the intervention and the outcomes
- Intervention has a positive effect on the outcomes
- There are no overriding negative effects from the intervention

The 2019 published study, the intervention was student use of large print formatted reading books as a replacement for their traditionally formatted books. The outcomes identified in that study included:

- Improved reading mindsets
- Increased Lexile levels and comprehension skills

Using the 2019 study as a guide, K-12 schools could replicate the success of this study and realize the value of the Tier 3: Promising Evidence. There are multiple ways that school and district leaders can leverage this study design and the Tier 3 evidence from the study results to impact students and teachers. Here is an example of how to replicate the study with your schools.

REPLICATION STRATEGY: A SCHOOL-BASED CORRELATIONAL STUDY

This replication strategy could be successful with one classroom, multiple classrooms within the same school, or across multiple schools. Suggested steps include:

1. Read the findings report from our 2019 study: *Advancing Literacy with Large Print*
Download the full white paper at [gale.com/literacy-study](https://www.gale.com/literacy-study)
2. Identify the outcome(s) desired for your school from our original study: improved reading mindsets, and/or increased Lexile levels and comprehension skills.
3. Recruit a cohort of teachers at your school (or across different schools) to participate in your study (idea: grade level team or content area team). Your principals, librarian/media specialists, and/or district ELA coordinator may be a good source for identifying the teacher cohort members.
4. With your study group, identify a literature reading book that all of your teachers will be using in an upcoming unit of study. Consult the Thorndike title guide to ensure that your teachers' titles are available in large print.
5. Procure the classroom sets of the large print formatted books for your upcoming study process. Your Thorndike Press rep can support varying quantities/shipments. For collection development or support with your order, contact your rep: **[cengage.com/refinder/thorndike](https://www.cengage.com/refinder/thorndike)**. Thorndike Press titles are also available through all major wholesalers like Follett and Mackin.
6. Identify or create both a pre-intervention survey and a post-intervention survey to collect data from teachers and students about their views and values on using a large print book. You can create your own surveys or use simplified versions of the online surveys used within the Project Tomorrow study. To use the Project Tomorrow survey tools, please contact research@tomorrow.org to register your interest in conducting a replication study and to gain access to the survey tools.
7. Have students and teachers complete the pre survey prior to their start of using the large print book in the classroom.
8. After the students and teachers have completed the unit using the large print book, have them complete the post-intervention survey. It is important for study validity that your students and teachers complete both the pre and post surveys.
9. Compare your pre-intervention and post-intervention results from both students and teachers. Study the resulting data and look for relationships between the use of the large print books and student views on their reading mindsets. Are students' views different after having the intervention of the large print?
10. Additionally, examine the teacher views on the efficacy of using the large print books to improve their students' reading comprehension. What do teachers say about the impact of the large print?

11. To help with your analysis of your data around the change in reading mindsets, Project Tomorrow has created Analyzing Your Study Data Guide for Large Print Outcomes. The guide provides a step-by-step process of determining if your study reveals Tier 3: Promising Evidence.
12. If appropriate, also look for quantitative results from student assessments as was done in the original 2019 study. Do your teachers see increases in Lexile scores after the students used a large print text based upon standardized assessments? Do improvements in other reading comprehension scores also correlate with the use of the large print text? Look for changes in scores and test results that cannot be ascribed to other influences beyond the intervention.
13. Identify the correlation connections between the use of the large print and the outcomes your study group of teachers observed.
14. Evaluate what you learned from this study. Discuss the data findings and your insights with your teachers—what did they learn? Talk to your students also. Create a summary of your findings to share with your principals, District ELA Coordinator, librarians and media specialists, and teachers. In your findings report, identify the Promising Evidence you uncovered through this study.
15. Now, determine how you are going to use these results to expand the impact of large print books on students' reading literacy development.





ABOUT PROJECT TOMORROW

The mission of Project Tomorrow®, a national education nonprofit organization, is to ensure that all students are well prepared to become tomorrow's leaders, innovators, and engaged citizens of the world. For the past 18 years, the organization has focused efforts on national research projects and the design and implementation of evaluation, efficacy, and feedback studies examining the impact of innovative learning models in the classroom. Learn more about our research activities, including our globally recognized Speak Up Research Project, at tomorrow.org.



ABOUT THORNDIKE PRESS

As a leading large print publisher, Thorndike Press helps people of all ages enjoy reading. In 1999 we extended our offerings to include middle grade and young adult titles. Now our catalog consists of over 1,000 titles and grows monthly with high-interest fiction and nonfiction books, including contemporary classics, award-winners, and bestsellers. We're committed to producing high-quality, unabridged reprints, with a 100% guarantee on binding, that will support students as they develop the skills necessary to become successful, confident, lifelong readers.

**LEARN
MORE**



800.223.1244 Ext. 4



gale.com/thorndike/ylp