

A Practitioners Guide to Responding to COVID-19 Series: *Successful Initiatives that Offset Out-of-School Learning Loss*

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Report Navigation

This Information Request (IR) report contains a navigation scheme that is visible in the sidebar on the left side of the document (to display, from the tool bar, select for PC: View > Show > Navigation Pane or for Mac: View > Sidebar > Navigation). From within the navigation, click the desired section heading or subheading to move to that particular area of the report. The IR is organized into the following sections:

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Background

Three state education agencies (SEA) that are served by Region 7 Comprehensive Center (R7CC) have been working diligently to provide guidance and support to their respective school districts as the impacts of COVID-19 become apparent to each school system. In response to questions and concerns about COVID-19 from state leadership within Region 7, a series of annotated bibliographies was created to inform stakeholders about the potential impact of increased out-of-school time and possible strategies to mitigate harm to students' academic development. The purpose of the series of bibliographies is to address three main questions.

Question 1: What will the impact of COVID-19 be on out-of-school learning loss?

Question 2: What impact do extended learning programs (summer school, after school programs, extended school day, or year-round school) have on student academic achievement?

Question 3: What initiatives have demonstrated success in offsetting out-of-school learning loss?

This bibliography will address the third of the three questions. Once shared with each SEA, they will then be distributed to LEAs for consideration as they refine their district and school continuity plans for the 2020-2021 school year.

There are 44 annotations included in this series of bibliographies. The organization within each section (articles or subsections) of the report is by ESSA level of evidence. However, within each level of evidence, organization is not intended to convey meaning. ESSA levels of evidence and What Works Clearinghouse designations are provided as a quick reference to readers.

Procedure

To locate resources for this series of reports, the R7CC Information Request team conducted online searches across three primary databases (ERIC, IES, and Google Scholar). In order to create the body of literature for review, researchers began with three search terms (“summer slide,” “summer melt,” and “summer learning loss”). The term “summer melt” was deleted from the search because it was associated with the summer between high school and college. The searches produced over 1,000 possible publications to create the final pool of 132 unique publications. Upon review of 132 resources located in the above searches, the team selected 44 for inclusion in this series of reports, based on these criteria: (a) publication date within the past 10 years, unless they were perceived as seminal works (e.g., Cooper et al., 2000) by the research team; (b) initiatives, programs, and studies that produced statistically significant, positive effects were included; and/or (c) content relevant to the client’s topics of interest. Detailed information on the selected resources is provided in the Resource Summaries section of this report, which follows the Overview.

In order to provide a reference for the quality of evidence presented in this bibliography, the researchers assigned each relevant publication to one of the four levels of evidence provided in the Every Student Succeeds Act guidance. Every relevant article was coded by two of the four authors. When the authors disagreed on a suggested level of evidence, they discussed the

differences and decided on a final recommendation. The authors followed guidance of Lee, Hughes, Smith, and Foorman (2016; see reference below) to determine the appropriate level of evidence.

General Limitations

As with many topics in education, there is a limited research base of information on successful initiatives that offset learning loss including COVID-19 related learning loss. However, resources cited in this summary include a few research-based strategies and practices grounded by strong, moderate, and promising evidence as defined by the criteria established in the ESSA guidance.

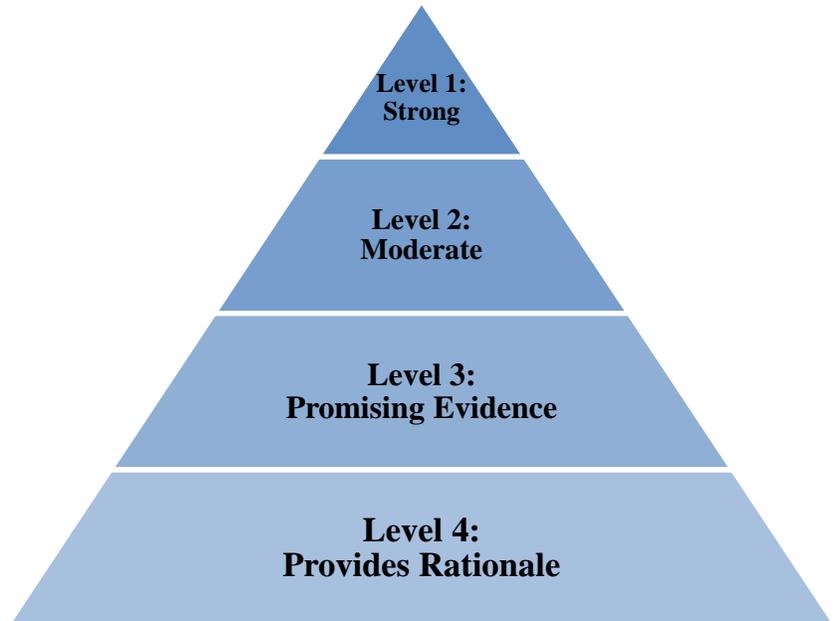
The ESSA Levels of Evidence indicators are meant as guidance to state and local administrators. Two of the four authors are certified reviewers of What Works Clearinghouse standards in group design. Even with this level of expertise and guidance, the authors cannot ensure outside entities will agree with these designations.

Overview

This report centers around a review of resources that discuss out-of-school learning loss. Summer learning loss occurs for most students. As a result of increased out-of-school time due to COVID-19, schools should expect students to return in the fall with a much wider range of knowledge. Also, the average knowledge of incoming students is likely to be lower than prior years due to more out-of-school time because of COVID-19.

In the Resource Summaries section, each resource summary includes the title, ESSA level of evidence (1=strong evidence, 2=moderate evidence, 3=promising evidence, 4=demonstrates a rationale), and an overview.

ESSA Levels of Evidence



Resource Summaries

The 17 selected resources relevant to this research question are listed by ESSA level of evidence within each of the three subtopics:

- Providing books in low income areas
- Tutoring
- Parent education/engagement
- Summer reading and writing
- Public-private partnerships
- Online credit recovery

Providing books in low-income areas

1. Allington, R. L., McGill-Franzen, A. M., Camilli, G., Williams, L., Graff, J., Zeig, J., ...& Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. *Reading Psychology, 31*, 411–427. doi:[10.1080/02702711.2010.505165](https://doi.org/10.1080/02702711.2010.505165)

Level of Evidence: ESSA Level 1

Overview

Allington et al. (2010) studied whether providing low-income students self-selected books each summer would have a positive impact on their reading and offset summer loss. Since previous research indicated results of single year interventions did not provide significant evidence, the authors hypothesized that providing the books over a three-year period would close the reading gap for disadvantaged students. Randomly selected first and second grade students could select 15 books each from a school book fair and take them home to read during three consecutive summers. At the end of the three-year period, using the Florida Comprehensive Achievement Test (FCAT) to determine reading gains, the authors confirmed that students provided self-selected books to read over the summer were able to beat summer setback and, in fact, had substantially greater reading gains than the students in the control group.

2. Evans, M. D. R., Kelley, J., & Sikora J. (2014). Scholarly culture and academic performance in 42 nations. *Social Forces, 92*, 1573–1605. doi: [10.1093/sf/sou030](https://doi.org/10.1093/sf/sou030)

Level of Evidence: ESSA Level 3

Overview

In this in-depth international study, the authors look at two possible theories on how books and culture provide important academic advantages for students. Comparing scholarly culture and cultural capital (elite culture), the authors found the effect of books in the home to be statistically significant in both cultures, with a much greater effect on students from families with little education and of low socioeconomic status. Evans, Kelley, and Siroka (2014) found that having books in the home was associated with highest test scores throughout the world. The impact of books in the home was much greater for students living in lower SES homes – a family’s first or second book has a much higher effect than the 102nd or 103rd book. On average, the authors found the difference between children from bookless homes and those from homes with 500 or more books to be about 2.2 years of schooling. Simply providing books for these students does matter as the number of books in a family’s home has a strong influence on scholarly culture thus improving student achievement.

3. Blazer, C. (2011). *Summer learning loss: Why its effect is strongest among low-income students and how it can be combated*. Miami, FL: Miami-Dade County Public Schools, Research Services. Retrieved from <https://files.eric.ed.gov/fulltext/ED536514.pdf>

Level of Evidence: ESSA Level 4

Overview

Blazer (2011) summarizes research on summer loss and provides recommended programs for administration to consider. The author highlights the research focused on summer learning loss specifically for low-income students, who fall weeks and months behind their peers. Then, the author reviews aspects of quality summer programs, including accessibility, curriculum, and family engagement. Finally, the author recommends providing books to low-income children as a relatively inexpensive way to help curtail the summer slide.

Tutoring

4. Fuchs, L.S., Fuchs, D., Craddock, C., Hollenbeck, K.N., Hamlett, C.L., & Schatschneider, C. (2008). Effects of small-group tutoring with and without validated classroom instruction on at-risk students’ math problem solving: Are two tiers of prevention better than one? *Journal of Educational Psychology, 100*, 491-509. Retrieved from <http://www.pubmedcentral.gov/articlerender.fcgi?artid=2536765>

Level of Evidence: ESSA Level 1

Overview

Fuchs et al. (2008) assessed the effects of small-group tutoring with and without validated (i.e., research-based) classroom instruction on at-risk (AR) third grade students' math problem solving before and after 16 weeks of intervention. Tutored students who received validated classroom instruction achieved better than tutored students who received conventional classroom instruction. However, receiving tutoring in either condition (compared to no tutoring) reduced math difficulties. Given this finding, Fuchs et al. suggested additional studies consider “whether tutoring might occur as a replacement for, rather than as a supplement to, classroom instruction.”

5. Baye, A., Lake, C., Inns, A. & Slavin, R. E. (2019). Effective reading programs for secondary students. *Reading Research Quarterly*, 54, 133-166. Retrieved from <http://www.bestevidence.org/word/Secondary-Reading-01-31-18.pdf>

Level of Evidence: ESSA Level 1

Overview

Baye, Lake, Inns, and Slavin (2019) reviewed 69 experimental research studies on secondary reading programs outcomes. Tutoring programs and whole school approaches that included teacher teams produced the most positive outcomes. The authors were surprised that additional instructional time (i.e., an extra daily period of reading instruction) had no impact on student achievement and hypothesized that this might be due to low student motivation for remedial work or an extra class period that displaces electives like art. The review also found no impacts for technology-focused reading programs which the authors attributed to teachers’ comfort integrating technology into instruction. The authors noted that programs across categories that produced positive outcomes emphasized elements like student motivation, relationships between students and with teachers, and social emotional learning which are core to personalized learning as a district- or school-wide educational approach.

- Pellegrini, M., Inns, A., Lake, C., & Slavin, R. E. (2018). *Effective programs in elementary mathematics: A best-evidence synthesis*. Paper presented at the Society for Research on Effective Education, Washington, DC. Retrieved from http://www.bestevidence.org/word/elem_math_Oct_8_2018.pdf

Level of Evidence: ESSA Level 2

Overview

Pellegrini, Inns, Lake, and Slavin (2018) reviewed 78 rigorous experimental evaluations of 61 elementary math programs' effects on student achievement in grades K-5. Reviewers grouped interventions into the following eight categories: tutoring, programs incorporating technology, professional development for math content and pedagogy, instructional process programs, whole-school reform, social-emotional learning, math curricula, and benchmark assessment programs. Tutoring and instructional process programs (i.e., professional development focused on improving teachers' classroom organization and management) were the most effective approaches. Other program categories produced modest to no impacts on achievement.

- Inns, A., Lake, C., Pellegrini, M., & Slavin, R. (2019). *A synthesis of quantitative research on programs for struggling readers in elementary schools*. Baltimore, MD: Johns Hopkins University, Center for Data-Driven Reform in Education. Retrieved from http://www.bestevidence.org/word/strug_read_April_2019_full.pdf

Level of Evidence: ESSA Level 2

Overview

Inns, Lake, Pellegrini, and Slavin (2019) reviewed 61 studies of 48 programs focused on improving achievement outcomes for struggling readers in elementary grades. Studies were organized into four program categories: tiered comprehensive whole-school interventions (Multi-Tier); classroom approaches (Tier 1); technology-supported adaptive instruction (Tier 2); and tutoring, both one-to-small group tutoring (Tier 2) and one-to-one tutoring (Tier 3). Across all studies, outcomes were strongest for one-to-one tutoring with the reviewers noting that effects were similar for tutoring provided by teachers and teaching assistants. The impact of tutoring provided by paid teaching assistants inspired some cost analysis in the discussion section of this paper for the benefits of administrators considering scaling tutoring across schools and for the consideration of schools facing certified teacher shortages. Remarkably, this review found that “whole-class approaches (mostly cooperative learning) and whole-school approaches [e.g., Success for All] incorporating tutoring obtained outcomes for struggling readers as large as those found for one-to-one tutoring and benefitted many more students.” This finding has cost

implications for schools serving larger numbers of struggling readers and looking to sustain student gains from tutoring over years.

Parent education/engagement

8. Kraft, M.A., & Monti-Nussbaum, M. (2017). Can schools empower parents to prevent summer learning loss? A text messaging field experiment to promote literacy skills. *The ANNALS of the American Academy of Political and Social Science*, 674, 85-112. Doi: [10.1177/0002716217732009](https://doi.org/10.1177/0002716217732009)

Level of Evidence: ESSA Level 1

Overview

Kraft and Monti-Nussbaum (2017) explored the use of text messages that provided reading intervention to randomly selected parents over summer break. Students in Grade 1 through Grade 4 and their families participated in a summer literature program consisting of intervention activities via approximately 18 text messages sent from the school to parents in July through August 2015. The text messages, framed as “pro tips,” were organized into three categories: resources, ideas, and signals. They stressed the importance of reading during the summer and the important role parents play by guiding their child through the activities. Pre-/post- results on the STAR and STEP assessments indicated a statistically significant amount of growth in the students with effect sizes ranging from .03 to .10 standard deviations (SD) with a pooled estimate of .06 SD. The authors found that participating students continued to see increasing incremental effects during the subsequent school year

9. Mitchell, C., & Begeny, J. C. (2014). Improving students reading through parents’ implementation of a structured reading program. *School Psychology Review*, 43(1), 41-58. Doi: [10.1080/02796015.2014.12087453](https://doi.org/10.1080/02796015.2014.12087453)

Level of Evidence: ESSA Level 2

Overview

Mitchell and Begeny (2014) conducted a quasi-experimental study of the impacts of a parent-implemented reading support program, HELPS, on the achievement of Grade 1 and Grade 2 students. The researchers found positive outcomes on fluency and comprehension of medium ($d = 0.72$) to large ($d = 2.09$) effect sizes. HELPS provides an example of a parent-led reading

program that could be used during out-of-school times to help students improve their reading achievement. Some concerns exist about the generalizability of results given the small sample size.

Summer reading and writing

10. Kim J. S, Guryan, J., White T. G., Quinn D. M., Capotosto, L., & Kingston H. C. (2016). Delayed effects of a low-cost and large-scale summer reading intervention on elementary school children's reading comprehension. *Journal of Research on Educational Effectiveness*, 9(1), 1–22. doi:[10.1080/19345747.2016.1164780](https://doi.org/10.1080/19345747.2016.1164780)

Level of Evidence: ESSA Level 1

Overview

Kim et al. (2016) evaluated the effectiveness of a low-cost and large-scale summer reading intervention, Project READS, that provided comprehension lessons at the end of the school year and home-based summer reading routines with narrative and informational books to students in Grade 2 and Grade 3. Participating students were re-examined nine months after the intervention (in the children's subsequent academic year), and authors found a statistically significant impact on children's reading comprehension, improving performance by 0.04 SD overall and 0.05 SD in high-poverty schools.

11. Guryan, J., Kim, J.S., & Quinn, D.M. (2014). *Does reading during the summer build reading skills? Evidence from a randomized experiment in 463 classrooms* (No. w20689). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w20689>

Level of Evidence: ESSA Level 1

Overview

Guryan, Kim, and Quinn (2014) designed a study to determine how much summer reading affected student achievement. In Project READS, randomly selected students were given reading comprehension lessons in the spring, and parents were invited to a family literacy event to learn how to support their child's work. Students received ten leveled books through the mail and were encouraged to read the books. They were also asked to mail in a tri-fold with three comprehension questions they had answered using the reading strategies taught during the spring

Results of the study were favorable, especially for third grade girls who not only avoided the summer slip, but based on a comparison of pre- and posttests, actually gained approximately 1.9 months of achievement at the total expense of only \$200-400 per pupil.

12. Borman, G. D., Goetz, M. E., & Dowling, N. M. (2009). Halting the summer achievement slide: A randomized field trial of the KindergARTen summer camp. *Journal of Education for Students Placed at Risk*, 14, 133-147. doi: [10.1080/10824660802427652](https://doi.org/10.1080/10824660802427652)

Level of Evidence: ESSA Level 1

Overview

Borman, Goetz, and Dowling (2009) conducted a randomized control trial using a 6-week summer enrichment program focused on literacy and the arts with students from high-poverty schools in Baltimore. Positive effects were found for students on the Developmental Reading Assessment ($d = 0.40$) and Word List A ($d = 0.27$) assessment.

13. Zvoch, K., & Stevens, J. J. (2013). Summer effects in a randomized field trial. *Early Childhood Research Quarterly*, 28(1), 24-32. doi: [10.1016/j.ecresq.2012.05.002](https://doi.org/10.1016/j.ecresq.2012.05.002)

Level of Evidence: ESSA Level 1

Overview

Zvoch and Stevens (2013) conducted a randomized control trial of a summer school program for Kindergarten and Grade 1 students who were moderately at risk for reading struggles. The summer program ran for five weeks with small class instruction for 3.5 hours a day four days a week including a minimum of two hours of teacher-directed, daily literacy instruction. A positive effect of 0.60 SD was found for Kindergarteners in reading fluency and a 0.75 SD effect for students in Grade 1.

14. Barone, T., Sinatra, R., Eschenauer, R., & Brasco, R. (2014). Examining writing performance and self-perception for low socioeconomic young adolescents. *Journal of Education and Learning*, 3, 158-171. [doi:10.5539/jel.v3n3p158](https://doi.org/10.5539/jel.v3n3p158)

Level of Evidence: ESSA Level 3

Overview

Barone, Sinatra, Eschenauer, and Brasco (2014) completed a case study examining the impact of a short-term intensive literacy approach on the writing performance and self-perception of adolescents from low-income families living in urban housing projects. Participating students were recruited for the summer program through housing project community centers and provided small-group instruction using a variety of instructional materials as well as an instructional procedure referred to as the 6 R's (Read, Reason, Retelling or Reconstruction, W@ite, Rubric, and Revise). The study used four types of instruments to measure performance and perceptions including pre-/post-administration writing samples, the Writer Self-Perception Scale (WSPS), surveys, and interview questions. The results implied that low-performing adolescent students can improve their self-perceived writing ability from a short-term intensive writing program. The study also provided initial findings to a field of literature that lacks research on writing as a key skill-building strategy and a means of increasing academic engagement in summer learning programs.

Public-private partnerships

15. Kamauru, J. (2016). Horizons at Brooklyn Friends School. *Independent School*, 75(4). Retrieved from <https://www.nais.org/magazine/independent-school/summer-2016/horizons-at-brooklyn-friends-school/>

Level of Evidence: ESSA Level 4

Overview

Kamauru (2016) reviews the Horizons Program at Brooklyn Friends Schools, a tuition-free program for students of nearby public schools to further their academic engagement after normal school hours. With support from education, business, and philanthropic communities, this program provides students (often from low-income families) who are in danger of losing academic progress with academic enrichment activities during six weeks of summer and periodically throughout the school year. Students who participate in the Horizons Program improved their academic performance in a variety of subjects (namely reading and mathematics) and graduated from high school. According to the article, the program boasts a 99% high school graduation rate for students who finish the program. Horizons at Brooklyn Friends provides four recommendations for schools willing to engage in similar endeavors: (a) build collaborative community partnerships, (b) integrate the program with school life, (c) address privilege, and (d) establish mutual partnerships.

16. Greenman, A. (2015). Rhode Island's innovative solutions to summer learning loss. *The State Education Standard*, 15(1), 24-27. Retrieved from <http://www.nasbe.org/wp-content/uploads/Rhode-Islands-Innovative-Solutions-to-Summer-Learning.pdf>

Level of Evidence: ESSA Level 4

Overview

Greenman (2015) highlights Rhode Island's efforts to curtail summer learning loss among its students. Working with stakeholders and securing funds through private and public-private partnerships, Rhode Island boasts a number of successful high-quality programs which include hands-on, experiential learning, strong student engagement, different curriculum than traditional school, and co-creation/co-delivery by a certified teacher and community educator. This article features the BLAST Program and the Providence After School Alliance Summer Scholars Program as exemplars of success as well as recommendations for scaling up which are aimed at state policymakers.

Online credit recovery

17. Heppen, J. B., Sorensen, N., Allensworth, E., Walters, K., Rickles, J., Taylor, S. S., & Michelman, V. (2016). The struggle to pass algebra: Online vs. face-to-face credit recovery for at-risk urban students. *Journal of Research on Educational Effectiveness*, 10, 272-296. doi: [10.1080/19345747.2016.1168500](https://doi.org/10.1080/19345747.2016.1168500)

Level of Evidence: ESSA Level 1

Overview

Given the widespread use of online courses for credit recovery and a lack of evidence about their efficacy, Heppen et al. (2016) conducted a randomized control trial to investigate the impacts of taking Algebra 1 credit recovery courses online compared to face-to-face instruction. Chicago public high school students who took the online class during the summers of 2011 and 2012 were less likely (66% to 78%) to complete their Algebra 1 credit compared to students in the face-to-face instruction. The impact of the credit recovery condition did not impact subsequent math achievement or on-time graduation rates.

Conclusion

The 17 resources provided in this information request reviewed successful extended learning programs. Several of the examples provided could help state and local administrators design

programs to address the COVID-19 achievement gap. For example, several resources provide strong evidence about the positive impact of providing easy access to books (*i.e.*, bookmobiles or book vending machines) in low socioeconomic areas can have on reading achievement. Other programs and strategies that have shown promise at improving student achievement include tutoring and summer reading and writing programs. Family engagement is another important aspect of successful extended learning programs especially due to COVID-19. The two studies on family engagement show that effective practices can be as simple as a regular text message or as involved as a parent/caregiver education program to build parent/caregiver capacity to support their students' learning. State and local administrators may find possible solutions in this information request, but should read the study in detail to ensure the program/strategy would translate well to their context. This information request provided state and local administrators examples of successful, evidence-based programs and strategies from several types of extended learning programs.

Overview of Findings:

Strategies that can help overcome gaps that form due to out-of-school time include:

- providing books in low income areas,
- tutoring struggling or at-risk students,
- engaging and educating parents, and
- holding summer reading and writing camps.

References

Lee, L., Hughes, J., Smith, K., & Foorman, B. (2016). *An LEA or school guide for identifying evidence-based interventions for school improvement*. Tallahassee, FL: Florida State University, Florida Center for Reading Research. Retrieved from https://fcrr.org/documents/essa/essa_guide_lea_introduction.pdf

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