Leveraging Findings from OST Research and Practice to Lessen COVID-19 Learning Gaps
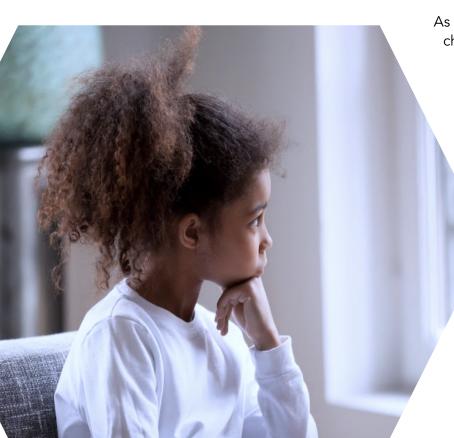
This report leverages findings from OST research and practice about exactly what happens when kids are not in school and identifies best practices to enable families, schools, educators, and organizations to initiate an effective, collaborative, and innovative response to the COVID-19–related school closures.

The recent COVID-19 pandemic is having an unprecedented effect on the U.S. K-12 education system. According to *Edweek*, the closure of at least 124,000 public and private schools is already affecting more than 55 million students. Entire statewide school systems are closing for months, with a growing number of states shuttering their schools for the remainder of the academic year.[i] Also, many states are waiving their 180-day school year requirement, canceling district and statewide spring assessments, reducing or eliminating teacher professional development, and reducing or eliminating other key educational services such as school meals and after-school programming.

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Impact of School Closures on Youth

As the pandemic continues to confine many children and families to their homes, it is entirely possible that millions of students could go without formal schooling for upwards of five to six months. Given what we know about the impact of the summer learning gap on student achievement, access to resources, and student health and well-being, the impact of a months-long school closure could be catastrophic. It is not out of the range of possibility that millions of students could lose most or all of what was learned during the 2019–2020 school year, leaving many students a year or more behind in their learning trajectory at the start of the

2020–2021 academic year. School systems anticipating a five- to six-month period of limited or no schooling are quickly mobilizing resources to move classroom instruction online; but access to technology is uneven, and virtual learning is not always as effective as in-person instruction, particularly for students who are struggling, have special needs, or have limited English proficiency.

Out-of-school time (OST) research can serve as an important guidepost in understanding the effects these closures may have. For decades researchers have studied the impacts for students who do not participate in educational opportunities during the two- to three-month summer break, as well as how evidence-based learning programs can positively affect students and promote continual learning and healthy development.

Although these circumstances are still evolving and the potential outcomes may not be observed for many years, it is critical for communities to act and intervene now to stem the potentially detrimental effects of disrupted formal schooling.

What Happens When Kids Are Not in School

Academic learning, access to resources and experiences, and student health and well-being are all greatly affected by the summer break. Stakeholders should expect that this gap in schooling related to COVID-19 will impact these same areas, but with more detrimental results.

Gaps in Learning Set Children Back Academically

If students experience five to six months of limited or no learning, **the regression in student achievement could be at least double the loss experienced over a summer**, *effectively eradicating most or all of the learning gained during the 2019–2020 school year. Without appropriate remediation efforts, professional development for teachers, and curriculum redesign to adjust to virtual learning, highest-need students will be most affected. Teachers will need to reteach significant content, lasting well into the 2020–2021 school year.*

Summer learning loss during elementary school can account for as much as two-thirds of the achievement gap in reading between low-income children and their middle-income peers by ninth grade.

With an extended gap in formal schooling, young people who do not have an opportunity for continual learning regress on measures of academic achievement. One study estimated that summer learning loss, which happens over the two- to three-month summer break, equals about one month,[ii] and another found that students lost between 25 and 30 percent of their school-year learning.[iii]

Gaps in schooling do not affect all students, grades, or subject matters equally. NWEA found that losses increased as students got older, with third-graders losing 20 percent of their school-year gains in reading and 27 percent in math, and seventh-graders losing 36 percent of their school-year gains in reading and 50 percent in math.[iv] Summer learning loss is more severe for Black and Latinx students, who also tend to gain less over the school year compared to White students. [ii]

Summer learning loss affects how teachers approach the start of the new school year. The National Summer Learning Association (NSLA) found that 9 in 10 teachers spend at least three weeks reteaching lessons at the start of the school year.[v] The school-year curriculum is designed intentionally with this in mind. However, if districts and organizations are not able to effectively address these unplanned and elongated COVID-19–related closures, teachers and school leaders will be confronted with a need for reteaching over an extended period of time, and potentially without curricular support. The effects of this remain unknown because of the unprecedented nature of these school closures; however, it would likely impact learning through the first quarter to half of the 2020–2021 school year and beyond.

Access to Resources and Experiences Is Limited

Empirical evidence shows that when schools are closed, inequality rises, and opportunity and achievement gaps widen. The primary inequities for families in OST are in access to activities, books, and technology. These same issues are present during COVID-19–related school closures, and if these are not considered, the effects could be disproportionately challenging for some students, with dramatic impacts across a student's life.

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26% of students living below the poverty threshold have either no internet access or dial-up only, with American Indians/Alaska Natives and African Americans having the least access.

When not in school, lower-income families have fewer resources to spend on enriching OST activities. Higher-income families spend as much as *seven times* more on activities for their children than lower-income families, enabling their children to participate in more activities and with greater frequency.[vi] Exposure to activities such as summer camps, private lessons and tutors, and sports teams has many benefits, including developing new interests and skills and building relationships with peers and adults.

Access to home learning materials such as books and technology varies greatly by location, race/ethnicity, and socioeconomic status. Children in the lowest-income families own an average of 38 books, whereas children from higher-income families have almost three times that number.[vii]

The long-existing challenge of equitable access to technology presents a formidable roadblock to education access in the COVID-19 crisis. A 2018 Microsoft study estimated that *about half of Americans—163 million people—do not have high-speed internet at home*.[viii] This disparity

includes both students in rural areas who cannot connect to the internet because providers have not extended the fiber-optic lines, as well as students in low-income urban districts whose families cannot afford to subscribe. Twenty-six percent of students living below the poverty threshold have either no access or dial-up only, with American Indians/Alaska Natives and African Americans having the least access.[ix] Students eligible for free or reduced-price meals more frequently lack access to computers in their homes.

Health and Well-Being Can Decline When School Is Not in Session

As a result of this gap in formal schooling, school leaders, educators, and community-based organizations should anticipate decreased opportunities for students to strengthen social-emotional skills, a decline in physical activities and sports, and increased obstacles for accessing healthy meals. All of these, if not addressed, will have significant effects on children's health, well-being, and learning.

Children who have opportunities to participate in social-emotional learning (SEL) programming, both in the school year and in OST, show a variety of positive results: improved self-control, an increase in the quality of their relationships with peers and adults, a decrease in substance abuse and risk-taking, and improved academic achievement.[x] Young people in summer programs also report making new friends and developing relationships with adults they can trust.[xi] Attending to social-emotional needs via virtual environments can be challenging, with fewer tools and research-based strategies available. When children's social-emotional needs are unmet, children are less able to learn and retain information.[xii]

When out of school, families face challenges accessing important child nutrition services. While school is in session, nearly 15 million students eat breakfast and 30 million eat lunch through the National School Breakfast and National School Lunch programs. During the summer when school is out, only 1 in 7 children who qualify received meals through the Summer Food Service Program.[xiii] Although many school districts are attempting to provide to-go meal service to students, some families may face challenges accessing these meals.

Formal schooling also provides opportunities for physical education and participation in sports. During the summer, studies indicate that children gain weight two to three times faster compared to during the school year, and children at greatest risk for obesity—overweight and minority youth—are the most vulnerable to summer weight gain.[xiv] There is also a decline in physical activity, particularly for children who are overweight.[xv] With communities removing basketball rims and tennis nets and closing playgrounds to discourage group gatherings, families will need to be much more intentional about ensuring that meaningful physical activity is part of the plan for every day.

Evidence supports that a gap in school will affect the health and well-being of children both during the COVID-19 school closures and well beyond. Ensuring youth's access to nutritious meals and physical activity and attending to social-emotional needs should be the primary concerns of any interventions and collaborative efforts to support children and their families.

BellXcel and SCRI Recommendations:
Supporting Children Holistically during COVID-19

It is undeniable that these closures are unprecedented, and there is clear potential for dramatic effects on students' academic progress, access to resources, and health and well-being. Although in an ideal world we would be able to immediately quantify these effects, it is critical that despite the uncertainty, experts leverage their astute knowledge and act quickly on behalf of students, families, and communities before this gap in schooling can no longer be bridged.

Drawing upon more than 25 years of experience as a leader in the OST field, BellXcel and SCRI have compiled key evidence-based practices to empower efforts by families, schools, and community-based organizations to diminish the effects of COVID-19–related school closures. Just as there is substantial research on the effects of gaps in schooling on students' learning and well-being, there is also substantial research on the impact of well-designed OST experiences. Structured OST hours can minimize risks and help kids thrive when school is not operating.[xvi] Specifically, these experiences have been shown to enable academic growth and SEL; increase health and wellness, physical activity, and enrichment; and decrease food insecurity.[xvii] [xviii] [xix]

Lessening Learning Gaps during School Closures:

1. Provide Structure

2. Focus on Social-Emotional Learning

3. Prioritize Health, Wellness, and Safety

These recommendations intentionally cast a wide net to help all of the stakeholders in student success precisely because the successful implementation of these practices will depend upon strengthening the partnership between schools, educators, community organizations and families. By enabling a new framework of partnership, collaboration, and adaptability, there is enormous potential to diminish the negative effects of these closures on students.

Top Three Strategies for Lessening COVID-19 Learning Gaps

1 **Provide Structure**

Plans for and implementation of online and home learning should focus on establishing an atmosphere for learning. Successful OST programs have demonstrated that families, educators, school leaders, and community-based organizations can successfully create meaningful learning experiences in many different environments.

- *Establish a well-organized learning space*
  Families and caregivers, as well as educators working with students remotely, should establish an organized space with learning materials and resources in one place for easy navigation. Even if spaces are serving dual purposes now, a consistent learning space with limited distractions will help students shift to academics for learning time and improve focus and engagement. This includes online portals where students access information from their teachers.

- *Set learning times according to developmental and technology needs*
  Leaders and educators can and should provide families with recommendations about the amount of time that should be spent as structured learning time, including weekly goals and objectives and strategies to check for understanding. The amount of online learning versus offline activities can be adjusted based on the technology access available to students and according to their developmental needs (for example, younger students will not be able to sustain focused attention for as long as older students). Building opportunities for young people to have a voice and to choose between options can increase motivation and ownership of the learning process.[xx]

- *Monitor learning and incorporate youth feedback*
  Families should establish a structure based on recommendations and implement it consistently, monitoring learning and asking youth for feedback. A consistent schedule allows for stability across caregivers, improving a student's ability to manage what is expected. Two strategies that may translate easily to a home setting are:

  ⇒ *Incorporate frequent checks for understanding related to lesson objectives and goals.*
  This is important in this unique gap in school because many students are working in new settings. These checks help adults understand the child's learning process and will allow parents to know when students need extra support to grasp a concept or understand the content, so they can reach out to teachers for support and guidance. Edutopia lists strategies for checking student understanding. This resource includes question and activity prompts that school leaders and educators should encourage parents to use.

  ⇒ *Allow for age-appropriate youth input in developing the schedule.*
  Parents can ask a child, "Do you prefer to do math in the morning or after lunch?" Allowing this type of agency encourages a feeling of ownership and improves engagement.

2 Focus on Social-Emotional Learning

All stakeholders—families, districts/schools, educators, and community-based organizations—should focus on students' SEL needs to enable academic learning. Learning is a social and emotional process; children do not learn in isolation, but alongside their peers and with the help of teachers and families. Data has shown that OST learning experiences can support strong positive growth in students' SEL.[xxi]

- *Make time for frequent SEL check-ins*
  The Collaborative for Academic, Social, and Emotional Learning (CASEL) has compiled valuable resources to boost SEL during school closures, including being mindful of adult stress, supporting children through different reactions, empowering children with knowledge, avoiding isolation through safe

socialization, and more. Developing an understanding of how SEL is interconnected to academic success is foundational to all other strategies. Children learn best when social and emotional needs are met.

- *Help youth maintain relationships and collaborate*
  Educators and families should prioritize opportunities for children to maintain relationships and collaborate with other students, friends, and peers either in the home or through safe channels like phone or video to encourage teamwork and relationship skills as part of academics.

- *Seek out virtual enrichment opportunities*
  Enrichment opportunities complement academic learning by providing exposure to new people, places, and ideas. Educators and families can continue to engage thoughtfully with businesses and community organizations to engage youth in enrichment experiences.[xxii] Whether compiling a list of museums' online exhibits or gathering a list of volunteers for phone interviews with young people to discuss college and/or career paths, these experiences provide students opportunities for personal growth and boost social-emotional skills.

3 Prioritize Health, Wellness, and Safety

Elevate health, wellness, and safety by ensuring access to meals and services and providing adult supervision. As simple as it sounds, adult supervision is proven to decrease risky behaviors, and healthy meals help to enable learning.[xxiii]

- *Use check-in times to monitor overall well-being in addition to academics*
  Families, caregivers, and educators should use check-in times not only for academics but also to spend time with children, including older children who may not appear to be struggling with these school closures. Relationships with a trusted adult provide valuable interactions for students, and this may be even more critical given the public health crisis.

- *Create a meal access plan*
  School leaders should ensure effective communication efforts to reach all families and inform them of exactly how the school is adapting to serve meals. Using this information, families should create a plan to access meals and accommodations. School leaders can find resources for meal service during COVID-19 through a U.S. Department of Agriculture site. Families can get in contact with their school district through their state's Department of Education listing.

- *Make time for questions and concerns about COVID-19*
  Anyone who is interacting with students during these school closures should be sure to make time for questions and concerns, and offer children an age-appropriate understanding of COVID-19 by using the following guidelines for talking to children from the Centers for Disease Control and Prevention (CDC).

Rethinking Learning: An Opportunity to Pave the Way for a New Kind of Partnership

Implementing practices such as these will certainly not be easy. School leaders, educators, and families alike are all being asked to engage in and lead the education of America's youth in new and uncomfortable ways with little-to-no certainty it will be effective. Working families, in particular, are being tasked with a job most never imagined they would sign up for: becoming their child's school-day teacher while at the same time managing the stress of supporting their families during this time. As we strive to move forward with strategies to lessen the negative impact of school closures, strengthening the collaboration between all of the stakeholders in youth development is critical for creating the wraparound support all of our students will require during COVID-19.

This challenge provides a new opportunity for the development of true partnerships between schools, educators, community organizations, and families.[xxiv] The reality is that learning does not just happen in schools; it happens all day long across a multitude of settings. Students annually spend only 1,000 of 6,000 hours in school settings. At this moment, we can collectively begin to apply a more holistic lens to learning; one that encompasses academic and social-emotional learning, formalized school and OST, and family engagement. This type of collective approach can be utilized long after the COVID-19 closures have passed because for students who spend only one-sixth of their lives in school settings, an equitable opportunity for learning can be enhanced by these partnerships, and the effects can be substantial.

About Us

bellxcel.

BellXcel's more than 25 years of innovative educational solutions and pursuit of evidence is changing the way that youth development organizations and schools reach and impact exponentially more children and families. BellXcel partners with communities across the country to develop holistic programs proven to accelerate learning and empower educators.

For more information, visit BellXcel.org.

SCRI

SCRI is an affiliate of BellXcel. Drawing on decades of firsthand implementation experience and a culture of continuous improvement, SCRI bridges the research to practice to policy gap, to help partners strengthen goals, implement high-quality practices, expand to reach more young people, and advocate for improved policies.

For more information, visit SperlingCenter.org.

[i] Map: Coronavirus and School Closures. (2020, March 6). Education Week. https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html

[ii] 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*, 227–268.

[iii] Atteberry, A., & McEachin, A. (2016). School's out: summer learning loss across grade levels and school contexts in the United States today. In K. Alexander, S. Pitcock, & M. Boulay (Eds). *Summer learning and summer learning loss* (pp. 35-54). Teachers College Press.

[iv] Thum Y. M., & Hauser, C. H. (2015). NWEA 2015 MAP norms for student and school achievement status and growth. NWEA Research Report. https://www.nwea.org/content/uploads/2018/01/2015-MAP-Norms-for-Student-and-School-Achievement-Status-and-Growth.pdf

[v] National Summer Learning Association. (2019). Summer by the numbers. https://www.summerlearning.org/knowledge-center/summer-numbers-infographic

[vi] McCombs, J.S., Whitaker, A.A., & Yoo, P.Y. (2017). The Value of Out-of-School Time Programs. Rand Corporation. https://www.rand.org/pubs/perspectives/PE267.html

[vii] Gill, J. (2018). READS: Helping Children Become Summer Bookworms. The Wallace Foundation. https://www.wallacefoundation.org/knowledge-center/pages/reads-helping-children-become-summer-bookworms.aspx

[viii] Smith, B. (2018). The rural broadband divide: An urgent national problem that we can solve. Microsoft. https://blogs.microsoft.com/on-the-issues/2018/12/03/the-rural-broadband-divide-an-urgent-national-problem-that-we-can-solve/

[ix] KewalRamani, A., Zhang, J., Wang, X., Rathbun, A., Corcoran, L., Diliberti, M., & Zhang, J. (2018). Student access to digital learning resources outside of the classroom (NCES 2017-098). U.S. Department of Education, National Center for Education Statistics. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017098

[x] Taylor, R.D., Oberle, E., Durlak, J.A., & Weissberg, R.P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, *88*(4), 1156-1171.

[xi] Sperling Center for Research and Innovation (SCRI). (2020). In their own words: What scholars say about social-emotional skill development in summer. http://www.sperlingcenter.org/

[xii] The Aspen Institute: National Commission on Social, Emotional, & Academic Development. *The Evidence Base for How We Learn: Supporting Students' Social, Emotional, and Academic Development.* https://www.nationalcommissionresources.com/product/evidence-base-for-how-we-learn

[xiii] Food Research and Action Center (2019). Hunger doesn't take a vacation: summer nutrition status report. https://frac.org/wp-content/uploads/frac-summer-nutrition-report-2019.pdf

[xiv] von Hippel, P. T., Powell, B., Downey, D. B., & Rowland, N. (2007). The effect of school on overweight in childhood: Gains in children's body mass index during the school year and during summer vacation. *American Journal of Public Health*, *97* (4), 796-802.

[xv] Carrel, A.L., Clark, R., Peterson, S., Eickhoff, J., & Allen, D.B. (2007). School-based fitness changes are lost during summer vacation. *Archives of Pediatrics and Adolescent Medicine*, *161*(6), 561-564.

[xvi] Centers for Disease Control and Prevention. Out of School Time. https://www.cdc.gov/healthyschools/ost.htm

[xvii] Dworkin, A.P., & Torres, M. (2020). High-Quality Summer Programs. National Association of Secondary School Principals. https://www.nassp.org/2020/02/01/high-quality-summer-programs-february-2020/

[xviii] McCombs, J.S., Whitaker, A.A., & Yoo, P.Y. (2017). The Value of Out-of-School Time Programs. Rand Corporation. https://www.rand.org/pubs/perspectives/PE267.html

[xix] Schwartz, H. L., McCombs, J. S., Augustine, C. H., & J Leschitz, J. T. (2018). *Getting to work on summer learning: Recommended practices for success* (2nd ed.). RAND Corporation.

[xx] Donnini, D. (2015). The role of student voice and choice in learner-centered competency reform). *[Unpublished doctoral dissertation]. University of New England.*

[xxi] Sperling Center for Research and Innovation (SCRI). (2020). In their own words: What scholars say about social-emotional skill development in summer. http://www.sperlingcenter.org/

[xxii] McCombs, J.S., Whitaker, A.A., & Yoo, P.Y. (2017). The Value of Out-of-School Time Programs. Rand Corporation. https://www.rand.org/pubs/perspectives/PE267.html

[xxiii] McCombs, J.S., Whitaker, A.A., & Yoo, P.Y. (2017). The Value of Out-of-School Time Programs. Rand Corporation. https://www.rand.org/pubs/perspectives/PE267.html

[xxiv] Pittman, K. (2020). What happens when out-of-school time is all the time? The Forum for Youth Investment. https://forumfyi.org/blog/what-happens-when-out-of-school-time-is-all-the-time/?_sft_category-blog"\t"_blank