



Sustaining Summer Learning with High-Quality Care and Education Opportunities

By Rachel Demma

Among all children, regardless of socioeconomic status or age, summer represents an opportunity for experiential and creative learning experiences that bolster and reinforce academic skills. Learning and development for all children, from infants through adolescents, during the summer months should be supported through engaging and enjoyable experiences.

For young children, summer is a time to continue taking part in developmentally appropriate activities—including play—that strengthen early literacy and mathematics skills, and build social and emotional competencies. These activities contribute to the development of cognitive, behavioral and executive function skill sets that increase the likelihood of positive long-term outcomes in school and life.

And, for school-age children, sustaining summer learning is critically important. Research increasingly points to summer learning loss as a primary contributor to the academic achievement gap. Summer learning loss, also known as the “summer slide,” refers to the tendency among low-income children to fall behind in their skill levels and retention of material during the summer months, resulting in lower achievement outcomes overall and requiring ongoing remedial attention.

Sustaining Summer Learning and Development for Young Children

Children from birth to age five are developing at a rapid rate, whether through the growth of neural connections in their brains, or their expanding cognitive abilities, social and emotional skills, and physical aptitudes. We know based on a growing body of scientific research that this rapid developmental trajectory is best supported by positive and supportive caregivers in developmentally rich, safe, and stable early care and learning environments, which include parents and families. High-quality early care and learning programs that provide these experiences help prepare children for success in school, and narrow the academic achievement gap between children from low-income families and their higher income peers.²

Levels of Summer Learning Loss among School-Age Children

A review and meta-analysis of 39 summer learning loss studies shows that all children, regardless of socioeconomic status, lose an average of 2.6 months of learning in mathematics. In reading, however, middle-class children gain knowledge and skills, while low-income children lose them.¹

The accelerated pace of early development means that continuous, uninterrupted time in high-quality programs maximizes potential outcomes and impact. In order for young children, particularly those from low-income backgrounds, to benefit from early care and learning experiences in high-quality programs, these experiences must take place consistently over time. For example, low-income children who remain with a qualified and supportive caregiver for a full day’s care versus a half-day demonstrate more positive learning and developmental outcomes than those who do not.³ Studies of the effects of half-day versus full-day pre-kindergarten have produced similar findings.⁴

Throughout the seasons, disruptions to patterns of high-quality care and education may take place due to limited daily hours of program operation, subsidy eligibility policies that interrupt the continuity of care, or access to resources such as transportation to or between care providers. The time of year care is needed—particularly during the summer months—should not pose an additional barrier to continuous, high-quality care for young children. For children from low-income families who are at risk of poor academic performance and getting ready to enter kindergarten, maintaining year-round continuity of care is essential.

School-Age Children and Summer Learning Loss

Summer learning loss disproportionately affects low-income school-age children. Barriers contributing to this trend include lack of access to high-quality programs and less consistent parental academic reinforcement at home.

The effects of summer learning loss are cumulative, meaning what begins as an early gap grows over time. The Beginning School Study (BSS) in Baltimore examined how much of the achievement gap is rooted in summer learning loss. The BSS followed the scores of 800 children taking the California Achievement Test (CAT) in the fall and spring from 1982-1987 from grades one through five. The study concluded that the cumulative impact of summer learning loss over the course of the first five years of school is almost three years, and is more pronounced for low-income students.⁶

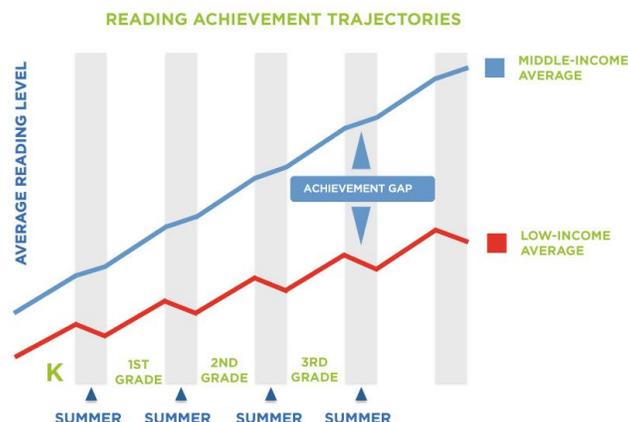


The Brain Science Research Behind Sustaining Summer Development and Learning:

Children learn to think and problem solve based on various ‘types’ of knowledge, including:

- **Conceptual knowledge** based on how ideas relate to one another
- **Procedural knowledge** based on practiced skills
- **Declarative knowledge** based on retention of facts

Procedural knowledge and skills are those hardest hit during the lack of practice entailed by the break in the summer months. For young children who are building the metacognitive strategies that structure their ability to think critically, solve increasingly complex problems, and recognize patterns, a great deal of learning falls within the procedural domain. Gaps in *procedural knowledge* also produce particularly significant achievement losses for school-age children in reading skills, as well as spelling and mathematics.⁵



What does a high-quality summer program look like?

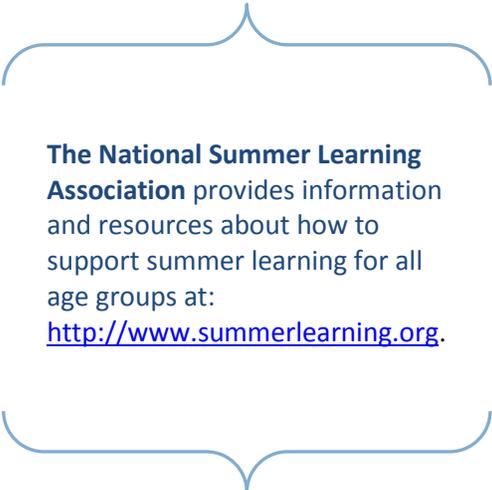
Recent research has demonstrated that high-quality summer programs can prevent summer learning loss and even boost student achievement. For school-age children, these positive effects last for up to 2 years after summer program participation. Key indicators of program quality include:⁷

- Smaller class sizes
- Individualized instruction/interaction
- Alignment of school year and summer curricula
- Parent engagement

How do federal and state policies support summer programming for young children?

While the majority of federal policies have targeted summer learning supports for the school-age population, the primary early care and education funding stream, the Child Care Development Fund (CCDF), can be used to support year-round care for children from infancy up through age 13. Another program funding support available to this age continuum is the Child and Adult Care Food Program (CACFP). These funds may be blended with U.S. Department of Education's 21st Century Community Learning Center funds for additional support for school-age learners.

At the state level, funding for pre-kindergarten initiatives may be available to finance summer learning opportunities for three and four year-old children in partnership with state or local education agencies and community partners. These pre-kindergarten programs may also blend federal funding from Title I, as well as Early Head Start/Head Start.



The National Summer Learning Association provides information and resources about how to support summer learning for all age groups at: <http://www.summerlearning.org>.

Suggestions for Programs

- Apply existing federal funding sources, including CCDF and CACFP, to increase access among low-income working families to high-quality summer early care and learning opportunities.
- Seek out mixed-delivery partnerships with other early care and learning programs, school systems, libraries, museums and universities.
- Develop a summer program anchored by a research-based curriculum and state early learning standards.
- Evaluate program effectiveness in improving child outcomes based on curricular and standard frameworks.
- Engage parents to sustain summer learning at home by:
 - Consistently engaging in key activities that have been shown to promote positive outcomes, including play, reading together, and creative and outdoor experiences.
 - Utilizing summer activity and reading lists developed by teachers and other educational professionals, such as early intervention and reading specialists.
 - Taking advantage of community resources including zoos, museums, libraries, and local universities for additional summer enrichment activities.
 - Researching high-quality summer learning opportunities offered by community child care centers that demonstrate high quality through a Quality Rating and Improvement System (QRIS) rating or national accreditation.



The Early Care and Education Program (ECEC) is the nation’s leading voice for multi-site, community early care and education providers, state child care associations, and education support organizations committed to delivering high-quality programs and services. We strive for strong developmental and learning outcomes for children and their families by advocating for actionable federal and state policies that bring quality to scale.

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.

² Duncan, G. J. (2003). Modeling the Impacts of Child Care Quality on Children’s Preschool Cognitive Development. *Child Development*, 74, 1454-1475.

³ Waldfogel, J. (2002). Child care, women’s employment, and child outcomes. *Journal of Population Economics*, 15, 527-548.

⁴ Robin, K.B., Frede, E.C. & Barnett, W.S. (2006). Is More Better? The Effects of Full-Day vs. Half-Day Preschool on Early School Achievement. *National Institute for Early Education Research Working Paper*.

⁵ Cooper, G. & Sweller, J. (1987). Effects of schema acquisition and rule automation on mathematical problem-solving transfer. *Journal of Education Psychology*, 79(4), 347-362.

⁶ Alexander, K.L. & Entwisle, D.R. & Olson, L.S. Lasting Consequences of the summer learning gap. (2007). *American Sociological Review*, 72, 167 – 180.

⁷ McCombs, J.S., Augustine, C.H., Schwartz, H.L., Bodilly, S.J., McInnis, B., Lichter, D.S., and Cross, A.G. (2011). Making Summer Count: How summer programs can boost children’s learning. *RAND Monographs*.