

Environmental Education and Nature-Rich Experiences

Essential for Youth and Community Well-Being During the COVID-19 Pandemic and Beyond



AUTHORS

Nicole M. Ardoin | Stanford University

Alison W. Bowers | Stanford University

PUBLISHED: December 9, 2020

The COVID-19 pandemic, which presents critical threats to education overall, also presents specific, potentially irreversible, and long-term threats to environmental education—an essential field that provides numerous cognitive, affective, and health-related benefits. [Recent research](#) indicates 11 million students in the United States may lose access to outdoor environmental and science education experiences, with many environmental education providers uncertain about their ability to ever reopen. Laser-focused on ensuring satisfactory academics within COVID’s safety-imposed constraints, districts and schools have jettisoned anything that seems peripheral to that core mission. As policymakers, administrators, and funders often perceive environmental education as a “luxury” or “add-on,” nearly all districts canceled or postponed field trips and other in-person environmental engagement opportunities when adjusting for pandemic conditions, and the degree to which those experiences will be included in reopening plans is uncertain.

Yet [research](#), practice, and personal experience suggest perhaps just the opposite is needed. Decades of studies document myriad ways in which exposure to the natural world—including breathing fresh air; feeling the warmth of sunlight; and interacting with the complex sensory stimulation of nature-rich environments, whether indoors or out—is vital to [physical and psychological well-being as well as for intellectual and social development](#). Worldwide, the COVID-19 pandemic has caused imposition of shelter-in-place mandates and physical distancing practices over nearly all of 2020, separating people from each other and the world around them. In California, wildfires of unprecedented magnitude caused weeks of dangerously poor air quality [in fall 2020](#). These converging crises prevent people from moving freely outside and benefitting from nature’s physical and emotional supports, precisely at a time when we need such experiences to feed our innate human desire to associate with life and lifelike processes—a phenomenon termed “biophilia.” Nature-rich experiences are more necessary than ever for the social, physical, and emotional well-being of youth in particular. Indeed, such interactions may be critical to [enhancing the effectiveness of education](#), whether children are attending school inperson, through distance learning, or via hybrid approaches.

It is against this backdrop that environmental education is a particularly important approach to assist educators and families with imagining new ways to encourage young people’s interaction with the world around them. Professional environmental educators are skilled at cultivating environmental experiences, whether in wilderness or closer-to-home settings. Children’s curiosity and visual interest can be piqued through observing the texture of a branch, colors on an insect, or light filtering through a forest canopy. Such experiences can develop and hone pattern recognition, activate the senses, and support physical development.

Moreover, time outdoors and in dynamic conditions can enhance personal and social resilience by providing opportunities to experience and deal with small actionable challenges, thus practicing and preparing for larger, more consequential ones in the future.

As we found in a recent [research review](#), children in certain developmental stages—such as early childhood—are especially likely to absorb and be influenced by the stimuli around them. Environmental education thus not only provides opportunities to learn directly about the environment and ecological processes but also has documented social-emotional, physical, language/literacy, and civic benefits. For these reasons, among others, an increasing number of researchers, educators, and families have begun to support environmental education for [early learners](#) in particular and for older students as well.

At the same time, the COVID-induced home-based focus of this unprecedented educational period presents unique opportunities for communities, caregivers, and environmental organizations alike. The existing environmental education toolbox provides many viable strategies for successfully enriching learning experiences as well as safely encouraging and supporting youth and families as they explore nature in their own communities.

Environmental educators are well equipped to imagine effective, engaging strategies for re-envisioning the future, especially for our youngest learners. Several solutions-oriented concepts drawn from environmental education include:

- **Emphasizing and pursuing restorative experiences in nature.** Repeatedly, research finds that time in nature-rich settings provides [stress relief](#) and enhances [coping skills](#) for young learners and adults alike. These co-benefits are needed now more than ever—especially for young people, whose primary modes of connection to each other and the broader world are through [screens](#). Although distance, online, and hybrid learning approaches—not to mention public health directives—may mean that schools and daycares are less able or more hesitant to support traditional field trips and outdoor play time, this may concurrently afford schools, families, and childcare providers the opportunity to support and engage in [creative nature-based experiences](#) designed and/or facilitated by knowledgeable environmental education professionals,
- **Leveraging environmental educators' teaching expertise to support families in their schooling needs as well as in their nature-based explorations.** Many environmental educators are also K–12-certified teachers, making them uniquely equipped to engage youth and their families in outside learning opportunities; uncover and highlight relevant resources; support and connect with local and community-based learning outside the classroom; and leverage nearby outdoor space—including parks—in enriching, [safe ways](#). Given that outdoor settings present a lower contagion risk than do indoor ones, environmental educators may offer helpful suggestions for teaching and learning outside with safety and comfort at the fore. The COVID-19 economic shift has brought furloughs and layoffs to many of the institutions that previously employed environmental educators; the resulting match of capacity and need presents an opportunity for supporting families and communities in getting kids outside in ways that are enjoyable, educational, civically minded, and healthy.
- **Harnessing the creativity and expertise of environmental educators to re-envision 21st-century learning.** In addition to focusing on the here and now, COVID-19's shock to the educational system may provide a longer-term opportunity to rethink the structure and content of formal schooling. Trying out new structures of “doing school” during the pandemic allows for exploration of ideas such as year-round school or [outdoor classrooms](#). Although the logistics may seem challenging, many environmental educators have the skills to work through barriers based on years of teaching in constantly changing outdoor settings unbound by traditional structures. Moreover, these changes may facilitate exploration of policy-oriented collaborations and curricular revisions, such as considering how to build in recommendations from [California's Environmental Literacy Initiative](#) (ELI), which has been under development and refinement since 2009. Thanks to district-by-district implementation statewide, many communities have built a range of connections to local resources such as parks, science centers, aquariums, and nature centers, among others. Although these connections can be accessed and leveraged, developing and instantiating more lasting structures will serve to broaden the array of learning opportunities over time.

In the current context of crisis, it would be easy to think of environmental education as “nice to have” not “need to have.” This field, however, may provide the key to a path forward not only to survive but to thrive. Environmental education supports communities, families, and youth from the earliest age in social-emotional and physical well-being, which is needed now more than ever.

During this intensely stressful period, we should leverage the decades-long, well-honed expertise abundant in the field of environmental education. Well-equipped and trained for working effectively under challenging, dynamic, and unpredictable conditions, environmental educators may be just the essential personnel we need to support our youth in developing actionable solutions for a more positive future. Their passion for a better world, coupled with practiced knowledge and skills, positions them to help our communities work individually and collectively towards a transformed, post-COVID educational vision. During what is perhaps the most earthshaking pivot ever seen in our educational system, we should celebrate environmental educators’ unique perspectives, recognizing this opportunity for their contributions to navigate towards a brighter, thriving, and nature-rich future.

Nicole M. Ardoin, *Emmett Faculty Scholar, is Sykes Family Director of the Emmett Interdisciplinary Program in Environment and Resources (E-IPER) in Stanford University’s School of Earth, Energy, and Environmental Sciences. She is an associate professor at the Graduate School of Education and a senior fellow at the Woods Institute for the Environment. Dr. Ardoin is a social ecologist who uses mixed-methods approaches to study human/environment interactions at the individual and collective scales.*

Alison W. Bowers *is a research associate in Stanford University’s Social Ecology Lab. She is an educational researcher and former special education teacher with more than two decades of experience in natural resources and the environment.*

Suggested citation Ardoin, N. M., & Bowers, A. W. (2020, December 9) *Environmental education and nature-rich experiences: Essential for youth and community well-being during the COVID-19 pandemic and beyond* [Commentary]. Policy Analysis for California Education. <https://edpolicyinca.org/newsroom/environmental-education-and-nature-rich-experiences>



Stanford Graduate School of Education
520 Galvez Mall, Suite 444
Stanford, CA 94305
Phone: 650.576.8484

edpolicyinca.org

