Dear friends,

2018 brings an exciting new direction for our Research Digest. Each quarter we will produce a themed, special edition Digest, followed by a webinar on the same topic. These themed Digests and accompanying webinars will allow us to dive deeper into specific topics of importance for the children and nature movement, in collaboration with leaders from the field.

We will publish our first special edition Digest at the end of February with a focus on equitable access to nature’s benefits, followed by a webinar on March 15 from noon to 1:00 p.m. CT. Watch for registration and login information in our February Research Digest.

We look forward to bringing you richer and deeper evidence-based information, paired with strategies and stories from the field, to inspire research application.

Sincerely,
Cathy Jordan, PhD, LP
Consulting Research Director
Children & Nature Network

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RESEARCH ARTICLES

Education

Students were more engaged and less distracted after lessons in a natural outdoor setting compared to classroom-based lessons

A mini-experiment replicated 20 times with two groups of third-grade students found that lessons in nature have positive after effects on student engagement in subsequent lessons. This nature advantage held across two teachers and persisted across 10 weeks and different instructional topics. This research provides a strong rationale for including more lessons in nature in formal education.
Mindfulness can strengthen place-based education
This review examined possible overlaps between place-based education (PBE) and sociocognitive mindfulness. Four overlapping areas were identified: environmental justice, problem-posing, social justice, and engagement. Mindfulness can strengthen PBE by helping students and teachers be more attentive to their local environments and to related environmental and social justice concerns. | Deringer, 2017. Mindful place-based education: Mapping the literature.  
Access study

Nature Kindergartens can provide new opportunities for students and teachers to deepen their connections with place
This article describes the planning and implementing of a Nature Kindergarten in a public school district in British Columbia, Canada. The vision and curriculum for the program -- developed through a community involvement process -- includes "local traditional knowledges" (Indigenous perspectives) as well as the prescribed provincial kindergarten curriculum. | Elliot & Krusekopt, 2017. Thinking outside the four walls of the classroom: A Canadian Nature Kindergarten.  
Access study

Environmental Knowledge

Young children attribute biological properties to animals more often than to plants
An assessment of young children’s conceptual development for animal, plant, and artifact categories indicate that they attributed biological properties (such as movement, growth, and nutrition) to animals more often than to plants or artifacts. Engaging children in gardening activities may help them gain a deeper understanding of plants as living organisms. | Fouquet, Megalakaki & Labrell, 2017. Children’s understanding of animal, plant, and artifact properties between 3 and 6 years.  
Access study

Fostering Connection to Nature

Community-based social marketing principles contributed to the success of a family nature club
This case study describes how organizers of a newly-formed family nature club used community-based social marketing (CBSM) principles to encourage and maintain family involvement in connecting children with nature. These principles included (1) making desired behaviors as easy as possible, (2) offering incentives, (3) highlighting social norms and social modeling, and (4) providing educational activities. | D'Amore & Chawla, 2017. Many children in the woods: Applying principles of community-based social marketing to a family nature club.  
Access study
Nonhuman agents - including technologies, plants and water - can "call a response" from children as they roam outdoors
Children's actions during a self-directed video and photography exercise as they roamed outdoors support assemblage theory, which includes the understanding that agencies "call a response" from children. The roaming pathways and geolocated photographs illustrate how nonhuman agents—such as technologies and plants—can be a part of the relational assemblage of children's outdoor roaming. | Smith & Dunkley, 2017. Technology-nonhuman-child assemblages: Reconceptualising rural childhood roaming. Access study

Physical Health & Health Equity

Green space initiatives promote health equity
This commentary highlights several community initiatives addressing social concerns relating to inequitable access to green space and related health disparities. Natural Leaders, a part of the Children & Nature Network, is one example of an initiative addressing these concerns. Also presented is a conceptual model focusing on the relationship between green space and health equity. | Jennings et al. 2017. Urban green space and the pursuit of health equity in parts of the United States. Access study

Built environment interventions show promise of increasing physical activity in children and adults but still needed is research on how the benefits of such interventions may be inequitably distributed
This systematic review of empirical studies investigated the relationship between built environment features and physical activity in children and/or adults. While findings indicate that environmental interventions can promote physical activity in some groups, the research on children and older adults was scarce. Findings also suggest that the benefits of interventions may not be equitably distributed. | Smith et al. 2017. Systematic literature review on built environment effects on physical activity and active transport - an update and new findings on health equity. Access study

Restorative & Therapeutic Benefits of Nature

Research on the convergence of child and youth care practice with outdoor adventure reveals credible evidence of robust positive outcomes
Research supports the application of outdoor adventure (OA) approaches to child and youth care (CYC) services, yet further inquiry is needed to address related concerns. Research recommendations include (1) examining the mechanisms involved, (2) determining where OA approaches become valued components of a "continuum of care," and (3) exploring cross-cultural understandings of OA in CYC. | Harper, 2017. Wilderness therapy, therapeutic camping and adventure education in child and youth care literature: A scoping review. Access study
Some natural environments are more psychologically beneficial than others
Data from over 4000 survey responses indicates that some natural environments are more psychologically beneficial than others. Respondents recalled greater connectedness to nature and restoration following visits to rural and coastal locations compared with urban green space, and to locations with greater ecosystem richness. | Wyles et al. 2017. Are some natural environments more psychologically beneficial than others? The importance of type and quality on connectedness to nature and psychological restoration.

Access study

Youth Involvement

Multi-national projects can be effective in building on cultural and social diversity to help young people become confident and capable environmental actors
This paper describes the impact of the Youth Leading Environmental Change (YLEC) program on participating youth in two contrasting countries. Outcomes were different for the two countries, reflecting participants' different lived experiences. Findings indicate that the environmental justice framework of YLEC can promote action competence of youth with diverse backgrounds. | Dittmer et al. 2018. "We can keep the fire burning": Building action competence through environmental justice education in Uganda and Germany.

Access study

Youth involvement in research and related action can help a community re-imagine and transform place relationships in response to critical place issues
Six Afro-Columbian youth, in their role as co-researchers, investigated biocultural place relationships in connection with the well-being and sustainability of the people of Isla Grande, Colombia. Results demonstrate how research with active youth involvement can attend to place both explicitly and politically to support community efforts towards sustainable development. | McRuer & Zethelius, 2017. The difference biocultural "place" makes to community efforts towards sustainable development: Youth participatory action research in a marine protected area of Columbia.

Access study

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