

Bringing the outdoors into early childhood education

...familiarising children with plants and animals, landscapes, seasons and weather...an objective is to develop children's love of nature, an understanding of the interplay of nature and between [hu]man and nature....Nature accommodates a multitude of experiences and activities in all seasons and all weathers.

-OECD Norway country note, 1999

The outdoor environment has an abundance of development and learning potential for children. Despite this, there has been a lasting perception that the sole function of outdoor spaces is for children to 'burn off steam'. This assumption is derived from the "surplus energy theory" espoused by Herbert Spencer almost 150 years ago in his book *Principals of Psychology*. In his theory, Spencer explains that the main function of children's play is to get rid of surplus energy. Although this has been rejected by many, it still has a lasting influence on the design of children's outdoor spaces. For example, this design concept can be seen with the design of playgrounds that consist mostly of manufactured play equipment and make limited or no use of any natural elements (White, 2004).

Recently, there has been growth of the idea that the outdoor environment can be more than a place to burn off steam, with more educators and architects and designers embracing the ideas that outdoor play space provides chances for the highest level of development and learning. When used best, it can be a place for investigation, exploration and social interaction (Weaver, 2000).

In early childhood programs that emphasize the outdoors there is no such thing as bad weather; rain and snow are seen as natural parts of the child's environment. Forests or other natural parts of the environment can be the classroom, a natural way for children to discover the world around them. Spending time in the outdoors helps children identify with nature, boosts physical and mental health, and helps children gain self-confidence and respect for the world around them.

In several countries in Europe it has become popular for young children to spend considerable time outdoors in the natural environment. Pedagogies of 'forest' daycare centres and kindergartens, eco-early childhood education and core components of child and nature interactions in curriculum have become common in a number of countries, most notably in Norway and Sweden. As described in the OECD's Norway Country Note:

...the 'Norwegian child' should live an active and outdoor childhood. Strong emphasis is placed on the relationship between young children and their wider environment, in particular the outdoor environment and more generally, with nature. Apart from being fun and healthy, being outside throughout the year is about learning to live in and with strongly demarcated seasons and extreme weather conditions... In short, being active and outdoors is both an issue of health and an issue of value, or identity.

- OECD, 1999

It has been noted that Canadian early childhood education and care programs have not tended to emphasize the opportunities offered by the outdoors. For example, a number of provinces do not require contiguous outdoor space as part of a regulated child care facility, so even getting children outdoors on a regular basis may be difficult for child care staff (see Beach and Friendly, 2005 for Canadian requirements for child care physical environments). In its review of Canada's early childhood education and care (ECEC) situation, the OECD commented that "Where outdoor space is concerned, the quality of the yards attached to centres is often poor in Canada, a country with much land space available". Quality by Design, a project of the Childcare Resource and Research Unit, identified the physical environment as one of eight elements of a system of early childhood education and care that should be considered.

This ISSUE file has been compiled to inspire policy makers and early educators to consider or revisit the possibilities that outdoor play spaces can offer for young children and to reflect on the multitude of learning opportunities nature provides, the design of outdoor spaces and the importance of outdoor play in early childhood curriculum.

Resource materials included in this ISSUE file:

Materials available online ^[1]

- Theoretical perspectives
- Resources and recommendations to inform practice

Print resources ^[2]

- Books and reports
- Periodical articles

Useful links ^[3]

- All materials are organized chronologically, from most to least recent.

Videos and multimedia ^[4]

- Useful videos and photo galleries exhibiting a range of outdoor spaces for young children.

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Tags:

physical environment ^[5]

kindergarten ^[6]

rural ^[7]

urban ^[8]

Materials available online

Theoretical perspectives

Children's right to play: An examination of the importance of play in the lives of children worldwide. ^[9] Lester, S., & Russell. W. (2010). Working papers in: *Early Childhood Development*. Bernard van Leer Foundation.

Outdoor affordances in early childhood education and care settings: Adults' and children's perspectives. ^[10] Kernan, M.(2010). *Children Youth and Environments* 20(1). 152-177 (must register for a free account to access)

Outdoor Play: Does avoiding the risks reduce the benefits? ^[11]

Little, H., Wyver, S. (2010). *Australian Journal of Early Childhood*, 33(2) 33-40.

The contribution of early childhood education to a sustainable society ^[12]

Samuelsson, I. & Kaga, Y. (2008). United Nations Educational, Scientific and Cultural Organization (UNESCO)

Seven Cs: An informational guide to young children's outdoor playspaces ^[13]

Herrington, S., Lesmeister, C., Nicholls, J. & Stefiuk, K. Westcoast Child Care Resource Centre & Consortium for Health, Intervention, Learning and Development (CHILD)

Child care centre physical environments ^[14]

Beach, J. and Friendly, M. *Quality by Design project* ^[15], Childcare Resource and Research Unit, 2005

Spaces to play: More listening to young children using the mosaic approach ^[16](Google book preview)

Clark, A. & Moss, P. National Children's Bureau, 2005

Resurrecting free play in young children ^[17]

Archives of Pediatrics and Adolescent Medicine, 159:46-50, 2005

Content and construct validity of the Early Childhood Physical Environment Rating Scale (ECPERS) ^[18]

Sugiyama, T. and Moore, G. Paper presented at the 36th annual Environmental Design Research Association Conference, Vancouver, April 27-May 1, 2005.

Children's physical environment rating scale ^[19]

Moore, G., Sugiyama, T. & O'Donnell, L. University of Sydney, New South Wales, 2003

Young children and the natural world ^[20]

Phenice, L. & Griffore, R. *Contemporary Issues in Early Childhood*, 4(2):167-171, 2003

Designed environments for young children: Empirical findings and implications for planning and design ^[21](Conference paper)

Moore, G. University of Sydney, New South Wales, 2001

Developmentally appropriate outdoor play environments for infants and toddlers ^[22]

Bernard van Leer Foundation, Working Papers in Early Childhood Development No.15, 1995. Jolley, J.

Learning landscapes: Theoretical issues and design considerations for the development of children's educational landscapes ^[23]

Weaver, L.I. Master's Thesis, Landscape Architecture, Virginia Tech

Resources and recommendations to inform practice

Children as designers or their own space [link no longer available]
Mindstretchers, May 2010

Early childhood outdoor learning environments - Visons and Values ^[24]
Government of South Australia, Department of Education and Children's Services, no date

Play Matters: A study of best practices to inform local policy and process in support of children's play. ^[25]

KaBoom! It starts with a playground, May 2010

- **KaBoom** ^[26] advocates for enriching play spaces to be available to all children, they have an extensive database of **free** online workshops, training and resources (print & online).

Children in Europe - Playing outside: why does it matter? [link no longer available]

Children in Scotland, August 2010

All issues of Children in Europe are now available to order online in either print format or instant PDF

Playing Outside: Play, nature and services for young children [link no longer available]

Key points: Children in Europe conference with Children in Scotland and Fife Council, Sept 2010

Why aren't the day care children playing outside? Flip flops, mulch and no coat ^[27]

Science News, May 2008

Design for Play: A guide to creating successful play spaces (pdf) ^[28]

Shackell, A., Butler, N., Doyle, P., Ball, D.

Play England, 2008

Visit **Play England** ^[29] for videos and more resources on outdoor play spaces.

Learning through farming in South Korea ^[30]

Lee, J. & Lee, J. O. Beyond the Journal: Young Children on the Web, November 2007

Play outside! Recommended resources for outdoor learning environments [link no longer available]

North Carolina Outdoor Learning Environments Alliance, 2007

Young children's relationship with nature: Its importance to children's development and the earth's future ^[31]

White, R. White Hutchinson Leisure and Learning Group, 2004

Benefits for children of play in nature ^[32]

White, R. White Hutchinson Leisure and Learning Group, 2004

Developmentally appropriate gardening for young children ^[33]

White Hutchinson Leisure and Learning Group, 2004

Best practices- the outdoor play experience [link no longer available]

Crossley, B. & Dietze, B. Canadian Child Care Federation, 2003

Opening the door to the outdoors [link no longer available]

Dietze, B. & Crossley, B. Canadian Child Care Federation, 2003

Outdoor play in winter- Wonderland or nightmare? [link no longer available]

Beckman, S. Canadian Child Care Federation, 2003

Research related to nature preschool ^[34]

Chippewa Nature Center, no date

Nature's benefits for children ^[35]

Backyard Nature, no date

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Tags:

child development ^[36]

physical environment ^[5]

staff ^[37]

parent involvement ^[38]

curricula and pedagogy ^[39]

Print resources

Books and reports

Outdoor Learning in the early years: Management and innovation (3rd ed)

Bilton, H. Routledge, 2010. (publishers info)

Bringing the Steiner Waldorf approach to your early years practice (2nd ed)

Nicol, J. Green, S (Ed). Routledge, 2010.(publisher's info)

Playing and learning outdoors: Making provision for high-quality experiences in the outdoor environment.

White, J. Routledge, 2008. (publishers info)

Adventures in nature

Edited by Mortari, L. and Zerbato, R. Children in Scotland, 2008 (publisher's info)

Making space: Award winning designs for young children

Children in Scotland, 2006 (publisher's info)

Preschool Outdoor Environment Measurement Scale (POEMS)

DeBord, K., Hestenes, L., Moore, R., Cosco, N., McGinnis, J. Kaplan Early Learning Company, 2005 (publisher's info)

- POEMS website

Designs for living and learning: Transforming early childhood environments

Curtis, D. & Carter, M. Redleaf Press, 2003 (publisher's info)

Child care design guide

Olds, A.R. McGraw-Hill, 2001(publisher's info)

Let's go outside: Designing the early childhood playground

Theemes, T. High/Scope Press, 1999

A study of child care legislation of Canadian provinces and territories with regards to outdoor settings

Mauffette, A.G. Children's Environment Research Center, 1998

Periodical articles

Being confined within? Constructions of the good childhood and outdoor play in early childhood education and care settings in Ireland.

Kernan, M & Devine, D. (2010). *Children & Society*, 24(5): 371-385.

A hundred ways of listening: Gathering children's perspectives of their early childhood environment

Clark, A. (2007). *Young Children*, 62(3):76-81.

The Children's Physical Environment Rating Scale (CPERS): Reliability and Validity for Assessing the Physical Environment of Early Childhood Educational Facilities

Moore GT, Sugiyama T. (2007). *Children, Youth and Environments*, 17(4):24-53.

Hopping frogs and trail walks: Connecting young children with nature

Woyke, P. (2004). *Young Children*, 59(1):82-85.

Children in the environment: Forest day-care centers: Modern day care with historical antecedents
Borge, A., Nordhagen, R. & Lie, K.(2003). *The History of the Family*, 8(4):605-618.

Making outdoor learning possible: Reflections on the importance of playing outdoors
Greenman, J.(2003). *Child Care Information Exchange*, 151:75-80.

The natural environment as a playground for children: The impact of outdoor play activities in pre-primary school children.
(2001). *Early Childhood Education Journal*, 29(2):111-117.

Developing an environmental outdoor play space
Wilson, Ruth. A. (1996). *Young Children*, 51(6):56-61.
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Tags:
physical environment [5]

Useful links

Forest School Canada [40]
Forest School Canada is a national education initiative of the Child and Nature Alliance of Canada, and is striving to become a not-for-profit organization. Our mission is to foster rich learning experiences, ecological literacy, and healthy living by connecting children to nature through the use of the Forest School model in the early, primary, and secondary years.

Green Hearts Institute for Nature in Childhood [41]
Green Hearts' mission is to restore and strengthen the bonds between children and nature. We use best practices in child development, environmental education, naturalistic landscaping, and conservation design to help ensure that active nature play and exploration remains a cherished part of childhood. By nurturing children's love for the natural world, Green Hearts lays the cornerstone for life-long conservation values among the citizens and leaders of the future.

Natural Learning Initiative [42]
Creating environments for healthy human development and a healthy biosphere for generations to come. The purpose of the Natural Learning Initiative is to promote the importance of the natural environment in the daily experience of all children, through environmental design, action research, education, and dissemination of information. See the **Green Desk** [43] to access various resources for childcare providers, administrators, and professionals seeking the latest information to create high quality, healthy outdoor environments for young children

Association of Nature Schools in Sweden [44]
Swedish nature schools are founded on the idea of "att lära in ute" -- to learn outdoors. The association is a forum for discussion and development for those working in Sweden's 70 nature schools. The Association believes that enjoyment of nature is the foundation in understanding ecology and the environmental issues. Knowledge about nature starts in nature!

Children & Nature Network [45]
The Children & Nature Network (C&NN) was created to encourage and support the people and organizations working to reconnect children with nature. C&NN provides access to the latest news and research in the field and a peer-to-peer network of researchers and individuals, educators and organizations dedicated to children's health and well-being.

Free Play Network [46]
The Free Play Network is a British network of individuals and organisations, which aims to promote greater public understanding of the need for better play opportunities for children, by promoting discussion, exchange of information, and guidance on best practice in development of children's play opportunities.

Kinder Nature [47]
Story County Iowa Conservation Board
Kinder Nature's goal is to have a website targeting preschool teachers and child care staff, to assist in learning , developing, and implementing a well-balanced environmental education (EE) preschool program. The intent is for childcare providers to have developmentally appropriate programs which incorporate a variety of learning styles while stimulating excitement within the child for learning.

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Tags:
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Videos and multimedia

These multimedia resources can be used as excellent teaching tools, each video is from a different country/region to offer a variety of approaches and practices that exhibit the significance of nature exploration in play for young children.

Available online

Exploring Green Education [48] - Abbotsford, Melbourne Australia (video 3:14)
Visions Episode 96, March 2011
At the kindergarten of the Melbourne Graduate School of Education, teachers and students explore the idea of a sustainable world, and educators are inspired by an awareness that education for sustainability couldn't occur at a more crucial time of life.

Environmental education at the Cloud Forest School [49]- Costa Rica (video 7:32)
Youtube, October 2008
Within the context of a thorough, well-rounded, bilingual education, the school focuses on environmental issues in a hands-on environment.

Neroche Forest School [50]- Blackdown Hills, UK (video 6:38)
YouTube, June, 2009
Forest School introduces young people to a new learning style in the forest helping to maximise the emotional, social and developmental benefits of education. Practitioners use learning and teaching strategies which raise self-esteem, develop confidence, independence, and language and communication skills in a natural environment.

In focus: Forest kindergarten [51]- Central Scotland (video 5:42)
South Lanarkshire TV & Forestry Commission Scotland, August 2010

Outdoor Preschool (trailer) [52]- Norway (video 1:59)
Journeyman Pictures, YouTube July, 2009
Outdoor nurseries are trying to counteract concerns that childhood has become overprotected and believe external education makes children more creative and independent

Full video available for purchase at Litmus Films [53]

Forest kindergarten [54]- Píngtung Taiwan (video)

Places for play: The exhibition [55] (photo gallery)
Free Play Network, 2005

Playscapes: A blog about playground design [56] (photo blog)

Multimedia not available online

Can you feel a colour? (video)
Jensen, C. European Commission, 1996. **Contact us for details** [57]

Child care by design (video)
Childcare Resource and Research Unit, 1995. **Order from CRRU** [58]

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Tags:
physical environment [5]
international organizations [59]

https://www.researchgate.net/publication/263087157_Children's_Right_to_Play_An_Examination_of_the_Importance_of_Play_in_the_Lives_of_Children_Worldwide [10]
https://www.researchgate.net/publication/259751056_Outdoor_Affordances_in_Early_Childhood_Education_and_Care_Settings_Adults'_and_Children's_Perspectives [11]
https://www.researchgate.net/publication/234648983_Outdoor_Play_Does_Avoiding_the_Risks_Reduce_the_Benefits [12] <https://www.childcarecanada.org/documents/research-policy-practice/08/05/contribution-early-childhood-education-sustainable-society#:~:text=Description%3A,peace%20and%20justice%20are%20upheld.> [13] https://www.outdoorplaycanada.ca/portfolio_page/seven-cs-an-informational-guide-to-young-childrens-outdoor-play-spaces/ [14]
http://www.childcarequality.ca/wdocs/QbD_PhysicalEnvironments.pdf [15] <https://www.childcarecanada.org/category/publication/quality-design> [16]
https://www.researchgate.net/publication/42798588_Spaces_to_play_More_listening_to_young_children_using_the_Mosaic_approach [17] <https://jamanetwork.com/journals/jamapediatrics/fullarticle/485902> [18]
<https://www.semanticscholar.org/paper/Content-and-construct-validity-of-the-Early-Rating-Sugiyama-Moore/3966ae7d00835a5047db42a0c918fc35d381770d> [19]
https://www.researchgate.net/publication/43502898_The_Children's_Physical_Environment_Rating_Scale_CPER5_Reliability_and_validity_for_assessing_the_physical_environment_of_early_childhood_educational_facilities#:~:text=While%20a%20numbe [20] <https://journals.sagepub.com/doi/abs/10.2304/ciec.2003.4.2.6> [21] <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.495.447&rep=rep1&type=pdf> [22] <https://eric.ed.gov/?id=ED388403> [23]
<https://vtechworks.lib.vt.edu/handle/10919/34095> [24] https://www.academia.edu/4213281/Early_Childhood_Outdoor_Learning_Environments_Vision_and_Values_The_VisionPreschool_and_Centre_Based_Care [25]
<https://www.railstotrails.org/resource-library/resources/play-matters-a-study-of-best-practices-to-inform-local-policy-and-process-in-support-of-children-s-play/?tag=Policy%2FAdvocacy> [26] <https://kaboom.org/about> [27]
<https://www.sciencedaily.com/releases/2008/05/080505072824.htm> [28] https://www.researchgate.net/publication/228823803_Design_for_play_a_guide_to_creating_successful_play_spaces [29] <https://www.playengland.org.uk/> [30]
https://www.researchgate.net/publication/280578200_Learning_through_Farming_in_South_Korea [31] <https://www.whitehutchinson.com/children/articles/childrennature.shtml> [32] <https://www.whitehutchinson.com/children/articles/benefits.shtml> [33] <https://www.whitehutchinson.com/children/articles/gardening.shtml> [34] <https://www.chippewanaturecenter.org/upload/editor/Research-Related-to-Nature-Preschool.pdf> [35] <https://www.gufsee.org/natures-benefits-for-children#:~:text=Studies%20show%20improved%20concentration%20after,on%20children's%20behavior%20and%20learning.> [36] <https://childcarecanada.org/category/tags/child-development> [37] <https://childcarecanada.org/category/tags/salary-enhancement> [38] <https://childcarecanada.org/category/tags/parent-involvement> [39] <https://childcarecanada.org/category/tags/curricula-and-pedagogy> [40] <http://childnature.ca/> [41] https://greenheartsinc.org/Parents_Guide_4MOL.html [42]
<https://naturalelearning.org/> [43] <https://naturalelearning.org/?q=content%2Fgreen-desk> [44] http://www.nynashamnsnatskolase/index_En.php?page=About%20Nature%20school [45] <https://childnature.ca/> [46]
<http://www.freeplaynetwork.org.uk/index.html> [47] <https://kindernature.org/> [48] <https://www.youtube.com/watch?v=wC-vteBvi0k> [49] <https://www.youtube.com/watch?v=rKPtMyRXKSs&feature=related> [50]
<https://www.youtube.com/watch?v=o8sj1HrZ7Nk&feature=related> [51] https://www.youtube.com/watch?v=g8WWrRzf7ZU&feature=player_embedded [52] <https://www.youtube.com/watch?v=mli1WkFhGvc> [53]
<http://www.litmusfilms.com/index.php/documentaries/education/arctic-outdoor-preschool-20.html> [54] <https://www.youtube.com/watch?gl=CA&hl=en&feature=related> [55]
<http://www.freeplaynetwork.org.uk/playlink/exhibition/> [56] <http://www.play-scapes.com/> [57] <https://childcarecanada.org/contact> [58] <https://childcarecanada.org/publications/video/95/01/child-care-design> [59]
<https://childcarecanada.org/category/tags/international-organizations>