



Are we Going Outside Today?

Students' experiences with nature-based physical activity to foster nature-based literacy

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Abstract

This study explores the experiences of early adolescent students (grades four and five, ages 9–12) engaging in nature-based activities as a means to develop nature-based literacy within the Physical and Health Education (PHE) curriculum.

Background: The study responds to growing concerns about children's increasing disconnection from nature, impacted by urbanization and increasingly sedentary lifestyles, which poses risks to both individual well-being and environmental health (Barrable & Booth, 2020; Barragan-Jason et al., 2021). Research shows that children's connection to nature declines significantly around ages 10 to 11, marking early adolescence as a critical period for cultivating a lasting bond with the natural world (Braun and Dierkes, 2017; Chawla & Gould, 2020; Hughes et al., 2019). Further, the PHE Canada Canadian PHE Competencies call for outdoor learning that empowers students to cultivate their holistic wellbeing while becoming conscientious stewards of our planet (Davis et al., 2023). Grounded in the theoretical framework of Human-Nature Connection, which highlights cognitive, emotional, spiritual, and physical connections with nature, this study positions schools, specifically in the subject of PHE, as key sites for fostering meaningful nature engagement (Barragan-Jason et al., 2021). Drawing on Barrette et al.'s (2022, 2025) nature-based literacy model, which comprises motivation, knowledge, competence, confidence, experience, connection, and stewardship, this study examines how the cognitive, physical, psychological, and social domains can be used to operationalize and support the development of nature-based literacy.

Methodology: The study employs a qualitative research design, specifically participatory visual methodology (Mitchell et al., 2018), which actively engages students in creating visual products to share their experiences and perspectives. This approach intentionally challenges traditional research power dynamics by centering students' voices and valuing their creative expression. In this study data will include the students' nature journals with their drawings and captions reflecting their experiences learning outside. Semi-structured interviews will then be used to learn more about their drawings and experiences outside. The data will be analyzed using Reflexive Thematic Analysis, as explained by Braun and Clarke (2022), which embraces the researcher's active and interpretive role in developing themes.

Results & Conclusion: Preliminary results are showing that meaningful engagement outside can foster students' seven components of nature-based literacy. By providing an accessible, evidence-informed approach to outdoor learning, this project aims to holistically enhance student health and well-being by fostering a connection with the natural world thereby addressing the core aims of PHE in Canada.

Keywords: Nature-based literacy; Physical and Health Education; outdoor learning



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