

Welcome to *TAPROOT*'s new Research Update section. As you may know, the Coalition for Education in the Outdoors has for 25 years been committed to advancing the empirical, theoretical, and philosophical bases of outdoor education. Those efforts (refereed articles) have been recorded in 11 volumes of *Research in Outdoor Education*.

Each issue of *TAPROOT* will henceforth share examples of ongoing research projects in hopes of fostering collaboration and honoring scholars whose work may not have, as yet, appeared in a professional journal. We invite submissions for future issues of *TAPROOT*.

The summaries printed below have, in our minds, direct application to the theme of this issue of *TAPROOT*: "Reflecting on Sustainability Education."

Now that I Know the Effects of Environmental Degradation, Do I Make Pro-Environmental Choices? Reports from Ontario Students

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Introduction

What ought and can be done about environmental degradation is contested and relates to opinions regarding fundamental cause(s). One of the solutions commonly suggested is education. One particular educational initiative in Ontario is the integrated Environmental Studies Programs (ESPs), wherein environmental topics are integrated into a holistic and interdisciplinary curriculum model taught at the secondary school level to students who register for a "package" of courses and spend the full semester with one to two teachers and a single student cohort (Russell & Burton, 2000; Sharpe & Breunig, 2009). The full-day cohort structure of ESPs provides for environmentally related experiential learning opportunities such as extended outdoor field trips or field study camps, volunteering, co-op placements and service learning with environmental organizations, and investigations of local environmental issues and processes. The intent of integrated ESPs—that learning be grounded in authentic "real world" experiences and provide students with opportunities for critical and holistic thinking—is a good example of a socially critical

approach to environmental education and one that provides the foundation for this study.

Methods

As part of a larger, longitudinal multi-case study that began in September 2007, the focus of this overview is on short-term impacts and results from the two following questions: 1) What is the impact of participation in an ESP on student learning about the environment? 2) How, if at all, did environmental knowledge gained from the ESP inform students' environmental actions? A compelling area of research in environmental education focuses on "minding the gap" between experience, knowledge, attitudes, and actions (Kolmuss & Agyeman, 2002). Case study research provides the opportunity to investigate, in rich detail, examples that will shed light on the complex interplay of experience, knowledge, attitudes, action and behaviour on behalf of environmental and social justice education. While case studies are necessarily limited in their generalizability, they can provide depth of understanding (Merriam, 1998). Data were collected through surveys, interviews, focus groups, observations, and document analysis.

Results and Scholarly Significance

There were positive reports about "domestic" environmentalism (e.g., using less water, recycling) and influencing peers alongside reports of "despair." Results from previous studies resonate with our study results, indicating that providing students with knowledge about the environment does indeed impact pro-environmental behaviours (Hsu, 2004; Kasapoglu & Turan, 2008). Alongside Kasapoglu and Turan, we are intrigued by the distinction between what they refer to as "general," "economy," and "domestic" environmental attitudes and behaviours. Pro-environmental behaviours run the gamut from notebook saving, caring for plants and trees, using a tissue, and turning off the lights when leaving a room (Kasapoglu & Turan).

Perhaps the most disturbing finding thus far from our study is that while students report being more knowledgeable about environmental issues, they also feel overwhelmed to the point of paralysis (Breunig, Russell, Murtell, & Howard, 2013). Some students indicated that they finished the ESP feeling despair about what they could meaningfully contribute. According to one recent study, there are both perceived barriers and promoters that impact students' choices about acting pro-environmentally (Quimby & Angeliq, 2011). According to Quimby and Angeliq, typical barriers include time,

money, low efficacy, and hopelessness. Typical promoters include shifting social norms and a community of people taking action. In our study, being a group member, having a sense of belonging, being in a pro-social community, and hearing community members speak about pro-environmental change set the stage for students to engage in environmental action themselves. We continue to consider how to use our study results to impact Ontario Ministry of Education environmental curricular initiatives and pedagogical praxes in an effort to further promote and support both pro-environmental and pro-social behavioural change.

References

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NOTE: The following research abstracts represent a sample of papers presented at the Coalition's Outdoor Education Research Symposium recently held at Indiana University's Bradford Woods Campus. The abstracts that follow will not include a reference list even though citations are part of the text. Papers (Abstracts from the Coalition for Education in the Outdoors Twelfth Biennial Research Symposium) may be accessed in their entirety at js.sagamorepub.com/roe

Teach Your Children Well: The Role of Parental Socialization in the Transformation of Children's Play in Wild Nature

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Introduction

The nature of outdoor play has changed. Today children increasingly spend their free time in adult-led activities and indoor play (Hofferth & Sandberg, 2001). Concerns regarding this societal shift gained mainstream attention with the publication of *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (Louv, 2005). A back-to-nature movement ensued at national, state, and local levels with parks and recreation organizations creating programs designed to get children back into wild environments (e.g., Children in Nature Programs offered by the National Park Service). We proposed that the conversation surrounding the back-to-nature movement missed the mark on two critical points. First, replacing children's spontaneous, unadulterated (Lester & Maudsley, 2006) outdoor play adult-led programming was not an equivalent substitution for informal outdoor play. Secondly, the decline in children's outdoor play had been attributed to a host of modern ills (e.g., electronic games) without acknowledgment of the role of parents. Children, as minors, are legally dependent on their parents or other caregivers (Valentine, 1997). Parents are not only the gatekeepers of children's play and free-time alternatives (e.g., purchase of electronics or registration in organized sports), but also serve as children's primary socializers until adolescence (Eccles & Harold, 1991; Welk, Wood, & Morss, 2003). The purpose of this presentation, drawn from a larger study, is twofold: (a) to examine how parental socialization contributed to changes in children's play in wild nature from the previous generation and (b) to initiate a discussion of how outdoor and environmental educators may assist parents in providing opportunities for their children to reap the developmental benefits of playing in wild nature environments.