Shifting Culture Towards Endorsement and Advocacy of Outdoor Play and Learning: A Collaborative Case Study with KidActive

Zachary Stevens, University of Waterloo, Bryan S. R. Grimwood, University of Waterloo, Shawna Babcock, KidActive, & Carly Meissner, KidActive, Canada

Abstract
Contemporary environmental crises are often attributable to a growing disconnect between humans and the natural world. One potential solution to this disconnect, as it relates to children, is the naturalizing of school playgrounds. This paper seeks to contextualize the impacts of a school ground naturalization program on the outdoor play and learning ecosystem. Drawing on results of a collaborative and qualitative case study, this paper highlights the ability of an outdoor play and learning spaces program to induce a culture shift toward the endorsement and advocacy of outdoor play and learning among school communities, catalyzing a need for supporting policy and regulation.

Resumé
Les crises environnementales de notre époque sont souvent attribuables à un éloignement de plus en plus grand entre l'humain et la nature. Pour aider les enfants à rebâtir ce lien, une solution possible est de ramener la nature dans les cours d'école. Le présent article vise à contextualiser les impacts d'un programme de naturalisation des terrains de jeu des écoles sur le jeu en plein air et l'écosystème d'apprentissage. S'inspirant des résultats d'une étude de cas collaborative et qualitative, le présent article met en lumière la capacité d'un programme de jeu extérieur et d'espaces d'apprentissage d'induire un changement de culture pour la promotion du jeu et de l'apprentissage extérieur dans les milieux scolaires, catalysant la nécessité de développer des politiques et des règlements pour appuyer cette démarche.

Keywords: naturalized playgrounds, outdoor play and learning, policy and regulations, case study, narrative, logic model, nature connection

Mots clés : naturalisation des terrains de jeu, jeu et apprentissage en plein air, politiques et règlements, étude de cas, narration, modèle logique, connexion à la nature

Introduction

A Need for Nature

The regressing state of the natural environment is one of the biggest challenges of our time (Dearden & Mitchell, 2009). Unfortunately, modern environmentalism, arguably the largest social movement to attempt to address environmental degradation, has been relatively ineffective in provoking substantial change. Indeed, we are still faced with numerous environmental issues that warrant significant concern (Burns & LeMoyne, 2001; Cianchi, 2015). It has been argued that these issues persist because of a growing disconnect between humans and the natural environment (Flowers, Lipsett, & Barrett, 2014; Liefländer, Fröhlich, Bogner, & Schultz, 2012; Nisbet, Zelenski, & Murphy, 2009; Pyle, 2003). Essentially, the contention is that as human connection with the natural world diminishes, we become increasingly negligent toward its preservation (Pyle, 2003). The requisite response is to foster a human–nature (re)connection, something to which Louv (2005) has brought marked attention. Louv's articulation of our contemporary "nature-deficit disorder" has provided much impetus for back-to-nature campaigns that advocate the necessity of human–nature connections and the relevance of direct experiences in nature for fostering health, well-being, and environmental stewardship.

Researchers, practitioners, and policy makers, among others, have heeded the call to devise ways to "most effectively and efficiently address [Louv's] nature-deficit disorder in an increasingly urban and technology-centered age" (Kuo, 2013, p. 184). In a systematic review of the literature pertaining to the notion of nature-deficit, Kuo (2013) developed several recommendations aimed at addressing it at a population level. Among the recommendations was the process of "green[ing] everyday places . . . includ[ing] residential areas, workplaces, and schools" (Kuo, 2013, p. 180).Of significance to this paper is the greening, or naturalizing, of school playgrounds and the outdoor play and learning opportunities these environments afford. White (2004) has highlighted the importance of such programs that target school grounds, emphasizing that in an age when children's

> access to the outdoors and the natural world [is] becoming increasingly limited or nonexistent, child care, kindergarten and schools, where children spend 40 to 50 hours per week, may be [hu]mankind's last opportunity to reconnect children with the natural world. (p. 3)

Opportunely, a budding global interest in school ground greening as a way of getting children back to nature has emerged (Bell & Dyment, 2006). Schools in various contexts have adopted the development of naturalized playgrounds—of "transforming hard, barren expanses of turf and asphalt into places that include a diversity of natural and built elements, such as shelters, rock amphitheaters, trees, shrubs, wildflower meadows, ponds, grassy berms and food gardens" (Bell

& Dyment, 2006, p. 16). Attention to naturalizing playgrounds has become particularly prominent in Canada, Australia, the United Kingdom, the United States, Scandinavia, New Zealand, and South Africa (Bell & Dyment, 2006).

Naturalized Playgrounds as a Potential Solution

With the emerging social interest in naturalized playgrounds, a growing body of literature explaining the benefits of these spaces has emerged. These benefits have been considered across a variety of research disciplines, resulting in a multitude of outcomes relating to individual children, individual schools, and broader communities (Bell, 2001; Lieberman & Hoody, 2000; Moore, 2014; Sobel, 1996; Taylor, Wiley, Kuo, & Sullivan, 1998). The association reported between nature-based play and learning and the healthy development of children is especially noteworthy in this literature. Raffan (2000) has explained, in his extensive review of literature pertaining to benefits, that school ground naturalization tends to have a trickle-up, or fountain, effect beginning with the child. For example:

> Improved academic performance as a result of involvement in a school ground naturalization project on the part of a student, may have direct effects on a teacher's enthusiasm for teaching, which in turn will affect the morale of the school, which in turn may increase enrollment or enhance public perception of the school, which in turn may encourage community members to become involved in school affairs or give them a heightened sense of community satisfaction. (Raffan, 2000, p. 6)

Other reviews and meta-analyses of the literature have pointed to a growing consensus among researchers that healthy developmental outcomes in children, including physical, cognitive, and social development, are supported through nature-based play and learning in naturalized playgrounds (Bell & Dyment, 2006; Heft, 1988; Raffan, 2000; Raith, 2015; Taylor & Kuo, 2006).

Despite the research contributions to understanding the positive associations between naturalized playgrounds and developmental outcomes (Bell & Dyment, 2006; Moore, 2014; Raffan, 2000), those championing the outdoor play and learning movement have expressed feeling restricted by a policy and regulation landscape that hinders the development and use of these important environments (Dyment & Reid, 2005; Spiegal, Gill, Harbottle, & Ball, 2014). For instance, fear of injuries and potential litigation often leads school administrators to adopt and adhere to Canadian Standards Association's (CSA) Children's Play Spaces and Equipment Standards (CSA, 2014), which do not currently support many naturalized playground features (Herrington, Brunelle, & Brussoni, 2017; Spiegal et al., 2014). Here in Canada, such hindrances have prompted gatherings and discussions among key stakeholders at events such as the Lawson Foundation's Outdoor Play and Early Learning Symposium held in September 2018 in Toronto. During the Lawson Foundation event, practitioners, researchers, policy makers, funders, consultants, advocates, and others explored ways in which

policy, research, and practice can inform one another to better support quality outdoor play and early learning opportunities. A discussion paper stemming from this symposium offered the metaphor of an "outdoor play ecosystem" to describe a collaborative approach that brings "all of the sectors, disciplines, and stakeholders into dialogue with one another in order to support high-quality outdoor play experiences for children" (Lawson Foundation, 2019). The Lawson discussion paper further highlighted the important roles that research, evaluation, and knowledge mobilization play within this ecosystem to inform and enhance practice, policy, and professional learning.

This paper aims to contribute to this outdoor play and learning ecosystem by reporting on a collaborative and qualitative research project that sought to contextualize the impacts of one particular case of stakeholders, places, activities, and outcomes in relation to naturalized playgrounds. In this paper, we draw on results captured through this research project, the purpose of which was to analyze the meanings and outcomes associated with children's nature-based play within the context of naturalized playgrounds. This paper highlights the ability of an outdoor play and learning spaces program to induce a culture shift toward the endorsement and advocacy of outdoor play and learning among school communities, catalyzing a need for supporting policy and regulation. In doing so, this paper contributes to understanding the significant role such programs can play in innovating or inspiring a shift within the outdoor play and learning ecosystem.

Methodology

A Collaborative Participatory Approach

Participatory research takes a bottom-up approach, which utilizes local priorities and perspectives to gain a better understanding or solution to those priorities (Cornwall & Jewkes, 1995; Grimwood, 2015). This project drew on tenets of participatory research to work collaboratively with stakeholders associated with a naturalized playground and outdoor learning program in designing and implementing the project so that it best suited their needs. In this case we worked closely with KidActive, a nationally registered charitable organization based in Renfrew County in Eastern Ontario. Founded to support the development of healthy children, communities, and environments across Canada, KidActive operates with the following mission:

> Through multi sector partnerships, collaboration, advocacy and both resource and program development, KidActive supports equitable healthy development and connects children and their families to safe, nearby built and natural environments that support accessible outdoor physical activity where they learn, play and live (KidActive, n.d.-a, para. 4).

With the ultimate vision of having every child be "active, healthy and connected to their natural environment" (KidActive, n.d.-a, para. 3), KidActive recognizes the right of all children to have the opportunity to develop fully across physical, mental, and emotional dimensions and to have a strong connection with the natural world.

Among KidActive's offerings is the Nature Play and Learning Spaces (NPLS) program. Through their NPLS program, KidActive collaborates with students, educators, parents, and communities within Renfrew County to naturalize school grounds and enhance children's play and learning experiences (KidActive, n.d.-b). The program is a one-year, school-based process that aims to "design and create spaces for inclusive, co-operative, creative, inspiring outdoor play and innovative outdoor learning opportunities" (KidActive, n.d.-b, p. 1). These yard enhancements involve manipulating the topography (e.g., adding grass and dirt mounds), sowing grass, planting trees, constructing mud kitchens, building outdoor classrooms, creating gardens, and/or bringing in loose parts—both natural (e.g., logs and stumps) and synthetic (e.g., shovels, pipes, and tires). NPLS mentors also provide tools and resources to help teachers fully utilize their outdoor spaces for play and learning.

With the NPLS program running for three consecutive years, associates from KidActive expressed a need to formally document the outcomes of their initiative. Director of KidActive, Shawna Babcock, and Education Coordinator at KidActive, Carly Meissner, discussed the consummate benefits of an evaluation of the NPLS program during our preliminary consultation, explaining that similar programs across Canada and internationally have received significant funding due in part to the fact that they had been evaluated and the outcomes and benefits of the program had been documented (personal communication, July 13, 2016). And thus, this initial phase in the participatory process yielded two key priorities for our research: 1) to develop an evaluation of the NPLS program and 2) to do so in a way that captured the stories of parents, teachers, and administrators who were familiar with the program.

Narrative Program Evaluation

Given the priorities of KidActive, our study adopted a narrative program evaluation approach. Program evaluation has historically been dominated by post-positivist thinkers attempting to determine the efficacy of a program through quantitative methods oriented toward the experimental model (Greene, 1994). However, as Greene (1994) has observed, there has been an advancement in "a diverse range of alternative approaches to program evaluation, including practical, decision-oriented approaches and approaches framed around qualitative methodologies" (p. 535). Costantino and Greene (2003) have explained that there is growing interest in using narrative inquiry in evaluative projects. Narratives reveal "contextual meanings and experiential insights" (Costantino & Greene, 2003, p. 37), which provide a more informative and multifaceted

evaluation than results from more quantitatively oriented methods such as surveys or questionnaires. Indeed, the stories that are elicited through narrative can provide a captivating evaluation that can be used to effectively promote the program and its benefits.

One evaluative tool that has been deemed useful in framing such narratives is the logic model. A logic model is a tool that managers and evaluators alike have often used to describe the assumptions of how a program works to achieve the initial, intermediate, and long-term outcomes it seeks to produce (McDavid & Hawthorn, 2006; Claphem, Manning, Williams, O'Brien, & Sutherland, 2017). These assumptions outline what is often referred to as program theory, the underlying theory that explains how a program works or is supposed to work (Cooksy, Gill, & Kelly, 2001). The theory weaves the various components of the model together into a causal chain. Essentially, "program theory provides meaning to the logic model by defining the connections among the four logic model elements" (Gugiu & Rodríguez-Campos, 2007, p. 346): inputs, activities, outputs, and outcomes. By describing the inputs, activities, outputs, and outcomes, it has been argued that these models can effectively tell the story of a program (Goertzen, Fahlman, Hampton, & Jeffery, 2003; McLaughlin & Jordan, 1999). Because of the unique ability of logic models to provide a straightforward framework for evaluation as well as tell the program story, it was decided to draw on this evaluative tool for this project.

Data Generation. Data for this project was generated by gathering individual stories pertaining to the lived experiences of those involved in the NPLS program through one-on-one, semi-structured, conversational interviews. Interviews were conducted between December 2016 and April 2017 with six teachers, six administrators, three parents, and one NPLS mentor. Interviews ranged from 30 to 70 minutes and were conducted by Zachary. By working with diverse perspectives of the program, we were able to develop a nuanced understanding of the meanings and outcomes of the NPLS program. A standard interview protocol was followed, whereby instructions were given to interviewees, questions were asked, and then participants were encouraged, through probing, to explain their ideas in more detail (Creswell, 2014). In these interviews, participants were asked to share stories about what these naturalized spaces meant to them and how the NPLS program had influenced them. They were also asked to communicate any perceived outcomes associated with their participation in the NPLS program. The conversational, semi-structured style of these interviews enabled participants to reflect on their experiences within the program, allowing them to set the pace for these discussions. Zachary's role as the researcher was to listen, clarify, probe, and possibly bring up topics relating to study objectives that had not arisen spontaneously in the course of the conversation. With participant consent, interviews were audio-recorded and transcribed verbatim. Data was also recorded through handwritten notes. Furthermore, member-checking was used to ensure that the data (i.e., stories) collected were true to how participants wanted to be portrayed.

To augment these stories, observational research methods were also used. This involved observing participants engaging with the naturalized playgrounds developed through the NPLS program (e.g., how students were using the playground, how teachers were using the spaces created) in order to help contextualize the interview participants' stories. In total, five unstructured, non-participant observations were conducted with one class at five different schools involved in the NPLS program. The observation protocol involved Zachary first introducing both himself and the research project to each class and inviting them to go out with their classmates and play as they typically would at recess. As the children played, Zachary recorded observations about how the students were using the space, the types of play he saw, and certain interactions that stood out to him. Additionally, Zachary sketched maps of the playgrounds and took pictures of the elements that had been installed as a result of the NPLS program. Directly following each of the observations, Zachary prepared a one-page summary of the experience.

Analysis. The interview data for the project was analyzed from a pragmatically oriented constructionist perspective (Crotty, 1998), which seeks to interpret the significances of meanings and perspectives of research participants. These interpretations were used to inform an understanding of the outcomes associated with the NPLS program. Data analysis was guided by what Polkinghorne (1995) has described as narrative analysis. This approach to qualitative analysis involves integrating the accounts of participants into an amalgamated narrative that provides a community story encompassing the voices of all research participants (Glover, 2003). Grimwood's (2016) exploration of the experience of mothers in an urban nature connection program is a notable example that illustrates such narrative crafting.

Because of the slightly unstructured nature of the narrative data, Ritchie and Spencer's (2002) framework analysis was used in conjunction with Polkinghorne's (1995) narrative analysis. This blending of analytical approaches provided a method for sorting and interpreting the data, while maintaining the narrative accounts of participants. Framework analysis involves moving through a series of five stages to organize material according to key themes: familiarization, identifying a thematic framework, indexing, charting, and interpretation (Ritchie & Spencer, 2002, p. 310). This process proved useful because it allowed the data to then be mapped to the elements of the logic model (i.e., inputs, activities, outputs, and outcomes). A more fulsome explanation of the analytical approach used for this project is reported elsewhere (Stevens, 2017).

Through a blending of narrative analysis, framework analysis, and logic modelling, Zachary was able to craft a narrative that was framed by a program logic model, whereby participant stories were synthesized into passages that coincided with different elements within the model. This blended approached allowed for the community story to be structured and presented in a way that was beneficial from an evaluation perspective (i.e., program logic model), while

also staying true to certain characteristics of narratives that Glover (2004) and Grimwood (2016) have maintained are key to good storytelling (e.g., chronology, context, characters, plotline, etc.). Though this evaluative approach differs from traditional narrative analysis that Polkinghorne (1995) and Glover (2003) have discussed, it proved to be useful for capturing the individual accounts of NPLS participants and incorporating them into an amalgamated narrative that was able to address the various dimensions under study.

Results and Interpretations

Storying the Logic Model

A logic model was created by analyzing and interpreting participant narratives and observational data using an evaluative lens. Figure 1 illustrates the logic model for the NPLS program. Within each of the logic model's categories are thematic groupings that attempt to encapsulate key narrative threads that emerged from participant stories and observational data. For the purposes of this paper, the model is best considered a heuristic; that is, a visual representation that provides some structure and order to the data in a way that allows audiences to see and understand how the themes relate to one another. A comprehensive overview of these themes and their relationship is available elsewhere (Stevens, 2017). In this paper, we aim to provide an overview of the initial and intermediate outcomes that were perceived to contribute to the long-term outcome of a culture shift—one we suggest is driving the advocacy and endorsement of outdoor play and learning as well as the need for supporting policy and regulation.

Initial and Intermediate Outcomes

To better understand how KidActive has worked to induce a culture shift toward outdoor play and learning advocacy among school communities, it is necessary to understand the initial and intermediate outcomes of the program that have facilitated this shift. Initial outcomes refer to the immediate outcomes that participants observe as a result of the NPLS program, and typically relate to changes in in awareness. Most notable in this regard were the initial outcomes of 1) an increase in knowledge and understanding of the value of outdoor play and learning and 2) a shift in perceptions pertaining to the schoolyard and the possibility of making changes to it.

The initial outcome of increased knowledge and understanding was apparent throughout the stories shared by participants. Most notable were stories of increased understanding of the value of outdoor play and learning. What became apparent when talking with participants was that the presentations, committees, and relationships that formed throughout the facilitation of the

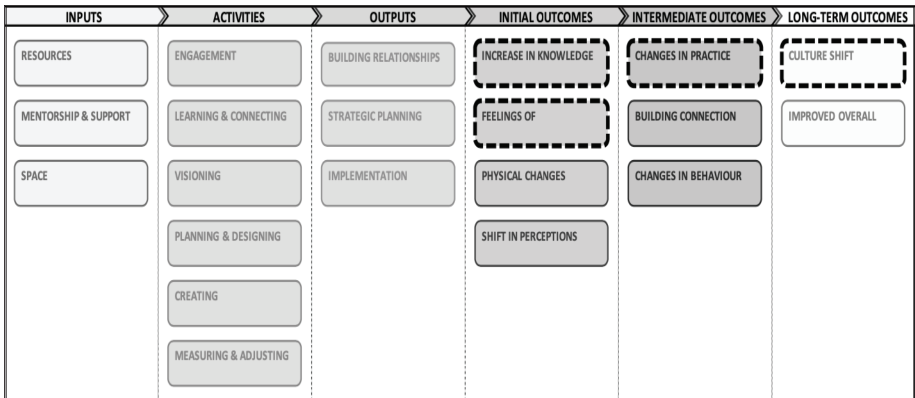

Figure 1. NPLS Program Logic Model. This figure illustrates the program logic model developed from participant stories. Those highlighted in black outline are discussed in this paper.

program sparked a dialogue about the value of outdoor play and learning. As Heidi (NPLS mentor) explained:

> An interesting thing that I see being impactful about working with schools to develop these spaces is that they start to build relationship and connection within that school community around the importance of [outdoor play and learning] . . . I've watched shifts in how teachers are valuing it.

This shift in the school community toward valuing outdoor play and learning was evident when Donna (school principal) related how her school now communicates with parents about taking their children outside at school, telling them, "'We really value the time that children spend outside. . . . So we're going to be sending your child out if it's raining lightly . . . if it's cold . . . we're going out.' So parents became aware that that's what we expect." The attribution of inherent value to outdoor play and learning and the development of a sincere appreciation for the same were evident in discussions with participants. This development of value and appreciation is a critical stepping stone for the future advancement of a broader culture shift toward advocacy for outdoor play and learning. It is also foundational to the development of supportive policy.

Another initial outcome related to the perceived culture shift is a positive change in perceptions within the school community about the possibility of schoolyard transformations. Notably, when asked why she felt these changes in attitude had occurred, Nicole (school teacher) explained:

> It's because we have accomplished something that we didn't think we would ever accomplish. There was a lot of negative talk around the how, but we now have a

> grass area. . . . This has lifted our morale and made us think that we are capable of more.

This success resulted in shifted perceptions among those in the school community who were initially doubtful about the ability of the NPLS program to influence lasting change, which created a more optimistic environment. This optimism is necessary for fostering a culture change in which advocacy for outdoor play and learning is front and centre. Without a shift in perceptions about the possibility of schoolyard transformations, it would be difficult to advocate for these enhanced spaces. Participants appeared to feel motivated to think creatively about their schoolyard transformations and advocate for policy to support the use of these modified spaces.

Participants perceived these initial outcomes leading to intermediate outcomes (i.e., changes in behaviour). Of particular interest for the purpose of this paper is the intermediate outcome of changes in teacher practices. What became apparent when talking with participants was that, with an increased understanding of the value of outdoor play and learning, some teachers were more inclined to take their students outside. For example, Joyce (school principal) explained, "a lot of teachers are accessing the space," adding, ". . . there's always somebody out there . . . teachers are out. Teachers aren't afraid to get out and enjoy the space with the kids." Sophia (school principal) echoed these sentiments when she said, "Definitely they're using it for not just recess time but instructional time too. . . . They're out every other day. They're using the yard."

Changes in behaviours and teaching practices were also evident in Zachary's observation of a particular Grade 3 classroom:

> [A student] turned over a rock and found a small dark salamander. . . . He carried it back to show the rest of the class . . . we headed inside bringing the salamander in a plastic tub lined with leaves, grass, and sticks the children had collected. The teacher gathered the class in front of the projector and began searching salamanders on her computer. She brought up a website that had a list of all the different salamanders that could be found in Ontario. She took the class through pictures, descriptions, and interactive maps to try to determine what kind it was. . . . After learning about the different salamanders it could be, they released him back in the forest. The teacher then read to the class a book called *The Salamander Room*, a story about a boy who finds a salamander out in the woods and wants to bring it home.

This observation is an excellent example of the inquiry-based learning that one teacher started to incorporate as a result of their participation in the NPLS program. These changes in behaviours and practices are yet another example of a movement toward a culture shift and will likely require supporting policies once the behaviour change is widespread and adopted by more educators.

Fostering a Culture Shift

Beyond the initial and intermediate outcomes, discussions about the impacts of the NPLS program with participants revealed that the program was helping to induce a culture shift toward the endorsement and advocacy of outdoor play and learning. Participants spoke about this culture shift as being a gradual, sometimes subtle one. For example, Donna (school principal) explained:

> trying to move forward with some of these things was really a paradigm shift. It was trying to move from this safe kind of 'put your kids in a bubble . . . don't let them get hurt . . . you're going to get sued,' into, 'Let the kids play!' . . . So there has absolutely 100 percent been a culture shift. When you start looking back and reflecting you think, 'Wow, we've come a long way!

When asked if she had any examples that track the shift in culture that participants were reporting, Heidi (NPLS Mentor) said:

> There's confidence and support for teachers like Cheryl at Seventh Street to take her students out daily to teach. . . . At Sixth Street, Kindergarten teachers are taking their classes outside daily to a forest space that they have. There are the Third Street teachers as well, walking with Kindergarteners to a wooded space every Friday for Forest Fridays.

This shift, though seemingly gradual and sometimes hard to notice, appears to be occurring at all levels within the school community. Nicole (school teacher) spoke about how people at the School Board are starting to grasp the importance of outdoor play and learning:

> I think we're definitely talking about it more. And I think the School Board is more aware of it as well because KidActive has been so vocal I guess in our area and getting in our schools. . . . So I think they realize we want more of these natural play spaces.

Lilly (parent) spoke about how her children's principal recognizes the importance of this culture shift: "Yeah, Jason is really encouraging which is wonderful! He gets it. He understands." Joyce (school principal) also talked about how her staff have gotten on board:

> They're all in . . . teachers love it; they've seen the benefits and they're using the yard, so you know they're in. . . . They're keen and they're supportive and they just want the best for the kids. They really do.

And finally, Cheryl (teacher) spoke about the overwhelming support she has been seeing from parents in the community:

> So [the parents] were all excited that [the children] were getting chances to get outside and get fresh air. I think as parents, I think we know that kids need to be

> outside playing more and that we know they need more of that free time, that fresh air. . . . So I think they're appreciative of the fact that they're getting more outside time.

These findings speak to the perceived culture shift toward the endorsement and advocacy of outdoor play and learning among members of the school community as a result of the NPLS program. Stories of parents volunteering their time to sit on school councils to ensure their children have access to outdoor play and learning opportunities, teachers doing what they can to take the curriculum outdoors, and principals using their power as administrators to hold the necessary space to encourage, support, and nurture the changes brought about through the NPLS program signify that a shift is beginning to happen. These findings are consistent with the work of Dyment (2005), who has articulated a need to shift culture if naturalized playgrounds are to become commonplace. However, this finding was tempered with stories of frustration about feeling constrained by school board regulations and policy in terms of what was allowed in the schoolyard. These findings support Dyment (2005) who has called for a "shift in the culture of schooling" (p. 47), arguing that the institution of education has not placed enough value on outdoor play and learning, which has impeded the progress of naturalized playgrounds. Lastly, results highlight the need for a culture shift to be followed by supporting policy to ensure that access to outdoor play and learning opportunities keeps up with the momentum being generated by the culture shift.

A Need for Supportive Policy and Regulation

Results from this study indicate that inconsistent policy and regulation in regard to outdoor play and learning environments made it very difficult for those trying to develop these kinds of spaces. Participants expressed difficulties when trying to implement their vision of what they hoped the schoolyard would become. These difficulties often stemmed from a lack of policy and regulation with respect to loose parts and other natural play features. As Nicole (school teacher) explained:

> since the use of loose parts and natural elements is more new to school playground design, there are not a lot of regulations directing how they can and should be implemented. So, you get conflicting messages. You're not told not to put these things in, but you're told there may be a problem with them in the future. . . . So they don't know . . . I actually talked to the lady [from the School Board] . . . and she was like, "It's just so new for us, we don't know what's acceptable and what's not."

Participants were very discouraged by the restrictive nature of current schoolyard policy and regulations that have prevented or limited what they were able to achieve in their spaces. It is not our intention, however, to point blame at the school boards. After all, they are merely adhering to the recommendations set out by their insurance companies, which suggest that all playgrounds meet

the CSA's Children's Play Spaces and Equipment Standards (OSBIE, 2010). However, as Herrington, Brunelle, and Brussoni (2017) have warned, these standards "are not intended to address play value or child development" (p. 145). In fact, they are not even intended to be the steadfast policy that litigation cases misinterpret them to be (Spiegal et al., 2014). They are simply voluntary standards that provide "guidance on requirements for the type of materials and equipment that promote optimal safety in playspace layouts" (CSA, 2014 as cited in Herrington et al., 2017, p. 145). Unfortunately, the promulgation of these standards as requisite playground policy has resulted in playgrounds being a far cry from what they should be: a stimulating and engaging space for all children to learn, play, and develop (Spiegal et al., 2014).

Participants further speculated that lack of formal policy and regulation was attributable to a culture of fear about safety and liability. Penny (school teacher) described this fear at the regulatory level:

> But it does become a battle with the Plant Department. . . . "Is it going to be safe? Is it going to be stable?" They want the companies that come in and install [the playground features] so that the liability is taken off the Board.

Nicole (school teacher) reiterated this barrier when she explained:

> So there have been some challenges with respect to . . . the School Board. . . . We had to talk to them because we were [naturalizing our playground] . . . things had to be approved . . . they were very unsure about even the loose parts. It's new to them and they are always concerned about safety, they're concerned about lawsuits. . . . "Are we being negligent in what we're allowing out there?" . . . this was a real concern.

Such concerns expressed by regulatory bodies can often inform the concerns of teachers and others who interact directly with the children. This was made evident when Nicole (school teacher) expressed: "There is less enthusiasm from safety officials as they are concerned with lawsuits . . . but their lack of enthusiasm is often discouraging and can make people fearful of change."

Alternatively, some participants felt as though the culture of fear and emphasis on safety among parents is what informs strict safety regulations, perpetuating this barrier to building successful outdoor play and learning environments:

> I think that we actually really need to start looking at . . . and tackling this issue of parents and liability and the amount of fear and resistance that it creates within the school setting. . . . We're placing more value on fear of the parents than on what we inherently know is good for children. (Heidi, NPLS mentor)

Thus, the objective becomes about encouraging a shift within the culture of parenting and, arguably, broader society because parents hold a lot of power in terms of what they feel is safe and acceptable for their children's play and

learning. This power dynamic was believed to inhibit the development of naturalized playgrounds. Such perceptions are apparent in the literature as well. For example, Tovey (2007) has explained that teachers are often anxious about accountability and litigation in today's risk-averse societies. Consequently, in conjunction with the culture shift previously discussed, the development of more formal outdoor play and learning policy within the education system that would help to dispel such anxieties appears to be needed in order to have naturalized playgrounds become more commonly integrated into schoolyards.

Although the NPLS program does not appear to have produced any formal policy document pertaining to outdoor play and learning, what the program has done is begin to foster a culture shift among the school community to advocate for and endorse outdoor play and learning. This has inspired action, which in a broader understanding of the word policy, could be considered as such. In other words, the support of developing outdoor play and learning spaces in schoolyards and the types of play that come with it is indicative of an emerging outdoor play and learning policy. For example, Heidi (NPLS mentor) mentioned, "At Sixth Street they're letting kids explore puddles and they're sending notes home and having conversations with parents to send in extra clothes in case kids get wet, telling them the importance of this type of play." Though not a formal school policy, this activity is nevertheless the result of what can be called a policy in the sense that it is a conscious choice made by the school to allow children to explore puddles if they choose. These types of informal policies were mentioned throughout the interviews. Other examples include Fourth Street and other schools allowing their students to play with sticks at recess, the principal at First Street asking her staff to increase the amount of time they spend outside with students, and the Kindergarten team at Sixth Street allowing their students to climb trees when out on their daily forest visits. In this latter instance, Theresa and Katrina (school teachers) explained that, "when climbing trees, we have agreed on a height that won't give us too many stressful thoughts." So rather than prohibiting tree climbing, they have a "policy" that allows children to play in a way that stimulates and challenges them. Thus, while the growing culture of advocating for outdoor play and learning is beginning to spur formal policy into existence, it is simultaneously working to encourage the development of informal rules, actions, and guidelines that comprise what we perceive to be a growing base of outdoor play and learning policy in school communities.

What is needed now is formal support, originating in policy and regulation from within the education system, that carries forward this momentum. We must continue to produce research that reinforces the notion that naturalized playgrounds provide tremendous benefit to children. In doing so, we can begin to shift the perception of the relevant bodies whose concerns about risk of litigation currently outweigh their understanding of the benefits of outdoor play and learning stimulated in naturalized playgrounds. In the meantime, organizations such as Evergreen (www.evergreen.ca) and Natural Learning Initiative

(www.naturalearning.org) have developed resources that can provide guidance to those who want to make changes to their schoolyards, while still working within the current schoolyard policy and regulations:

- *The Learning Grounds: Guide for Schools*
- *Nature Place & Learning Places: Creating and Managing Places Where Children Engage with Nature*

More information can be found on their websites.

Conclusion: Towards an Ecosystem Lens

Through mentorship, support, and the creation of a space for those with shared values and visions of outdoor play and learning, KidActive was able to nurture the development of a culture shift toward outdoor play and learning advocacy. Despite this culture shift, participants in this study felt a lack of support in terms of policy, regulation, and training in order to provide quality outdoor play and learning experiences. This research contributes to the greater outdoor play and learning ecosystem by highlighting the willingness and readiness of outdoor play and learning advocates to be adequately supported by policy, regulation, and training. This research demonstrates that a culture shift is not enough to provide exceptional outdoor play and learning opportunities for children and calls upon policy makers and regulating bodies to support the needs of those who are eager to facilitate these experiences. This research also helps to illustrate the relevance of applying an ecosystem lens to the outdoor play and learning domain in that it demonstrates the reality of the interconnections between advocates, practitioners, policy makers, and researchers. In order to continue to advance the outdoor play and learning movement, all stakeholders must collaborate with one another, each helping to inform and inspire the other when working toward the betterment of outdoor play and learning experiences for children.

Notes on Contributors

Zachary M. Stevens graduated from the University of Waterloo with a Master's degree from the Department of Recreation and Leisure Studies. His research interests include nature-based play and learning, nature connection, and program evaluation. Guided by these passions, Zachary now works for Evergreen developing, managing, and evaluating outdoor play and learning opportunities for children and families. Contact: zstevens@evergreen.ca

Bryan S. R. Grimwood is Associate Professor in the Department of Recreation and Leisure Studies at the University of Waterloo, Canada. His research analyzes

human-nature relationships and advocates for justice and sustainability in contexts of tourism, leisure, and outdoor education. Contact: bgrimwood@ uwaterloo.ca

Shawna Babcock is an educator connecting and learning outside with kids in local natural spaces in the Ottawa Valley. She was a co-author of the Position Statement for Active Outdoor Play in Canada and a founding member of Outdoor Play Canada. She is the founder of a charitable organization KidActive - Healthy Children Communities & Environment and has worked for more than 15 years in healthy child development community, health equity, and education. Most importantly Shawna is the parent of 3 amazing children raising them in the Ottawa Valley and playing as much as possible on and in the rivers, trees, and hills that surround them.

Carly R. Meissner graduated from Lakehead University with an honours in Outdoor Recreation, Parks and Tourism and a Bachelor of Education. Carly is passionate about connecting people to the natural world, encouraging a place of curiosity. She invites people to step into this place through her work as a facilitator for the Child and Nature Alliance of Canada and at Shaw Woods Outdoor Education Centre in Renfrew County where she lives. Contact: cmeissner@ childnature.ca

References

Bell, A. (2001). Engaging spaces: On school-based habitat restoration. *Canadian Journal of Environmental Education*, *6*(1), 139–154. Retrieved from http://new-library.lakeheadu.ca/index.php/cjee/article/view/296

Bell, A., & Dyment, J. (2006). *Grounds for action promoting physical activity through school ground greening in Canada*. Toronto, ON: Evergreen. Retrieved from https://www.evergreen.ca/downloads/pdfs/Grounds-For-Action.pdf

Burns, T. J., & LeMoyne, T. (2001). How environmental movements can be more effective: prioritizing environmental themes in political discourse. *Human Ecology Review*, *8*(1), 26.

Canadian Standards Association. (2014). *CAN/CSA-Z614-14: Children's playspaces and equipment*. (5th ed.). Toronto, ON: Canadian Standards Association.

Cianchi, J. (2015). *Radical environmentalism : nature, identity and more-than-human agency*. Basingstoke ; New York: Palgrave Macmillan.

Clapham, K., Manning, C., Williams, K., O'Brien, G., & Sutherland, M. (2017). Using a logic model to evaluate the Kids Together early education inclusion program for children with disabilities and additional needs. *Evaluation and Program Planning*, *61*, 96–105. http://doi.org/10.1016/j.evalprogplan.2016.12.004

Cooksy, L. J., Gill, P., & Kelly, P. A. (2001). The program logic model as an integrative framework for a multimethod evaluation. *Evaluation and Program Planning*, *24*(2), 119–129.

Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science and Medicine*, *41*(12), 1667–1676.

Costantino, T. E., & Greene, J. C. (2003). Reflections on the Use of Narrative in Evaluation. *American Journal of Evaluation*, *24*(1), 35–49.

Creswell, J. W. (2014). *Research design : qualitative, quantitative, and mixed methods approaches* (Vol. 4th). Thousand Oaks: SAGE Publications.

Crotty, M. (1998). *The foundations of social research: meaning and perspective in the research process*. Thousand Oaks, CA: SAGE Publications.

Dearden, P., & Mitchell, B. (2009). *Environmental change and challenge* (3rd ed.). Don Mills, ON: Oxford University Press.

Dyment, J. E. (2005). *Gaining Ground: The Power and Potential of School Ground Greening in the Toronto District School Board*. Toronto, ON.

Dyment, J. E., & Reid, A. (2005). Breaking New Ground? Reflections on Greening School Grounds as Sites of Ecological, Pedagogical, and Social Transformation. *Canadian Journal of Environmental Education*, *10*(1), 286–301.

Flowers, M., Lipsett, L., & Barrett, M. J. (2014). Animism , Creativity , and a Tree : Shifting into Nature Connection through Attention to Subtle Energies and Contemplative Art Practice. *Canadian Journal of Environmental Education*, *19*(1), 111–126.

Glover, T. D. (2003). Taking the Narrative Turn: The Value of Stories in Leisure Research. *Loisir et Societe*, *26*(1), 145–167 + 9. http://doi.org/10.1080/07053436.2003.10707610

Glover, T. D. (2004). Narrative Inquiry and the Study of Grassroots Associations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *15*(1), 47–69.

Goertzen, J. R., Fahlman, S. A., Hampton, M. R., & Jeffery, B. L. (2003). Creating logic models using grounded theory: A case example demonstrating a unique approach to logic model development. *Canadian Journal of Program Evaluation*, *18*(2), 115–138.

Greene, J. C. (1994). Qualitative Program Evaluation. In N. K. Denzin & Y. A. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 530–544). Thousand Oaks, CA.

Grimwood, B. S. R. (2015). Participatory action research: Democratizing knowledge for social justice and change. In D. C. Parry & C. W. Johnson (Eds.), *Fostering social justice through qualitative inquiry* (pp. 217–250). Walnut Creek, CA: Left Coast Press.

Grimwood, B. S. R. (2016). An Ecofeminist Narrative of Urban Nature Connection. *Leisure Sciences*, *0*(0), 1–18. http://doi.org/10.1080/01490400.2016.1216812

Gugiu, P. C., & Rodríguez-Campos, L. (2007). Semi-structured interview protocol for constructing logic models. *Evaluation and Program Planning*, *30*(4), 339–350. http://doi.org/10.1016/j.evalprogplan.2007.08.004

Heft, H. (1988). Affordances of Children's Environments: A functional approach to environmental description. *Children's Environments Quarterly*, *5*(2), 29–37.

Herrington, S., Brunelle, S., & Brussoni, M. (2017). Outdoor play spaces in Canada: As if children mattered. In T. Waller, E. Ärlemalm-Hagsér, E. B. H. Sandseter, L. Lee-Hammond, K. Lekies, & S. Wyver (Eds.), *The SAGE Handbook of Outdoor Play and Learning* (pp. 143–165). Thousand Oaks, CA: SAGE Publications Ltd.

KidActive. (n.d.-a). Healthy kids, communities & environments. Retrieved from http://www.kidactive.ca/about

KidActive. (n.d.-b). Natural Place and Learning Spaces. Retrieved from http://www.kidactive.ca/sites/default/files/images/docs/NPLS-KASP-033-Rev2.pdf

Kuo, F. E. (2013). Nature-deficit disorder: evidence, dosage, and treatment. *Journal of Policy Research in Tourism, Leisure and Events*, *5*(2), 172–186.

Lawson Foundation. (2019). Advancing Outdoor Play and Early Childhood Education: A Discussion Paper. Retrieved from http://lawson.ca/advancing-op-ece.pdf

Lieberman, G. A., & Hoody, L. L. (2000). *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*. San Diega, CA.

Liefländer, A. K., Fröhlich, G., Bogner, F. X., & Schultz, P. W. (2012). Promoting connectedness with nature through environmental education. *Environmental Education Research*, *19*(3), 370–384. http://doi.org/10.1080/13504622.2012.697545

Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books.

McDavid, J. C., & Hawthorn, L. R. L. (2006). *Program evaluation and performace measurement: An introduction to practice*. Thousand Oaks, CA: Sage Publications.

McLaughlin, J. A., & Jordan, G. B. (1999). Logic models: A tool for telling your programs performance story. *Evaluation and Program Planning*, *22*(1), 65–72. http://doi.org/10.1016/s0149-7189(98)00042-1

Moore, R. C. (2014). *Nature Play & Learning Places: Creating and managing places where children engage with nature.* (1.2). Raleigh, NC: Natural Learning Initiative. Retrieved from http://natureplayandlearningplaces.org/wp-content/uploads/2014/08/Nature-Play-and-Learning-Places_Executive-Summary_v.01.pdf

Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The Nature Relatedness Scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment And Behavior*, *41*(5), 715–740. http://doi.org/10.1177/0013916506295574

Ontario School Boards' Insurance Exchange. (2010). Are School Playgrounds Safe? *The Oracle*, *10*(2), 1–4.

Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. *International Journal of Qualitative Studies in Education*, *8*(1), 5–23.

Pyle, R. M. (2003). Nature matrix: reconnecting people and nature. *Oryx*, *37*(2), 206–214. http://doi.org/10.1017/S0030605303000383

Raffan, J. (2000). *Nature nurtures: Investigating the Potential of School Grounds*. Toronto, ON: Evergreen.

Raith, A. (2015). Informal nature experience on the school playground. *International Journal for Transformative Research*, *2*(1), 18–25. http://doi.org/10.1515/ijtr-2015-0004

Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. In A. M. Huberman & M. B. Miles (Eds.), *The qualitative researcher's companion* (pp. 305–329). Thousand Oaks, CA: Sage Publications.

Sobel. (1996). *No Beyond ecophobia: Reclaiming the heart in nature education*. Orion Society.

Spiegal, B., Gill, T., Harbottle, H., & Ball, D. J. (2014). Children's Play Space and Safety Management. *SAGE Open*, *4*(1), 1–11. http://doi.org/10.1177/2158244014522075

Stevens, Z. M. (2017). *Outcomes of Natural Play and Learning Spaces: A Collaborative Case Study With KidActive*. University of Waterloo.

Taylor, A. F., & Kuo, F. E. (2006). Is contact with nature important for healthy child development:

State of the evidence. In C. Spencer & M. Blades (Eds.), *Children and their environments: Learning, using and designing spaces* (pp. 124–140). New York: Cambridge University Press.

Taylor, A. F., Wiley, A., Kuo, F. E., & Sullivan, W. C. (1998). Growing up in the inner city: Green spaces as places to grow. *Environment and Behaviour*, *30*(1), 3–27.

Tovey, H. (2007). *Playing Outdoors: Spaces and Places, Risk and Challenge*. New York, NY: Open University Press.

White, R. (2004). Young children's relationship with nature: Its importance to children's development & the Earth's future. White Hutchinson Leisure & Learning Group. Retrieved from http://www.childrennatureandyou.org/Young Children's Relationship with Nature-White.pdf