

# Alberta's out-of-school nature play opportunities: Prevalence, challenges and solutions

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### Introduction & background

This presentation reports on Phase 1 of a study that documents the frequency of after-school or out-of-school program participants' opportunities to engage in play and especially play in outdoor and nature-based contexts. Free and unstructured play, especially in nature-based environments has been shown to be an important facilitator of children's cognitive and emotional development (Anning et al.; 2006; Han, 2009), promoter of health physical activity (Bowler et al., 2010; Cleland et al., 2008; Hinkley et al., 2008), mental health and restoration (Roe & Aspinall, 2011; Wells & Evans, 2003) and overall health and wellness (Kuo, 2010; McCurdy et al., 2010). Louv (2006) and others suggests that children and youth are spending less time outdoors than in previous generations. A lack of historic base line confounds attempts to evaluate this and reports of time spent outdoors by children and youth are mixed (Larson et al., 2011; Marino et al. 2012; Tandon et al., 2012). Many contend that time indoors is still too common (Hefferth & Sandberg, 2001) and often characterized by passive non-interactive activities that produce few developmental or health related benefits (Adams, 2012; Barkham, 2013). Additionally time in both environments is said to be increasingly structured or scheduled (Ginsburg, 2007), and as a result, children fail to experience the well documented benefits of play. No studies could be located that document children's access to outdoor environments during out-of-school or afterschool programs. This presentation addresses this gap in knowledge by reporting on Alberta afterschool programs' provision of time that children and youth engage in outdoor and nature based structured and unstructured activities, the prevalence of setting outdoor play as a priority by these programs, and the factors that shape the amount of time spent outdoors by children enrolled in these programs.

### Methodology

An online survey was distributed to members of the Alberta Recreation and Parks Association. Distribution through the ARPA network was deemed to be one of the best methods of survey distribution as many of these programs are members of the ARPA. This resulted in a convenience sample and is thus not likely a representative sample of after school programs in Alberta. The survey solicited several layers of information including (i) practitioners' definition of play with examples (un prompted), (ii) reports of structured activities and unstructured play offered by programs in *outdoor contexts* (any area outside buildings that is accessible for use), and *natural environments* (green spaces with display minimal human modifications, e.g., a storm water pond, a forest, a town park), and (iii) descriptions of opportunities for youth and children to interact with nature indoors. *Unstructured play* was defined for survey participants as play that is intrinsically motivated, freely chosen, personally directed, and culturally influenced. We further clarified that "...children choose and have control over their play (the equipment they use and how they

use it, who they play with, the space they play in, and the reasons they play)” and provided examples such as “‘Free time’ in a sport program” and “Youth creating a shelter from fallen tree limbs in a ravine.” We provided this definition to survey respondents after they had given their own definition of play. Each time we asked for the number of minutes per day that children engaged in unstructured vs. structured activities, we provided examples to illustrate (e.g., unstructured=building snow forts, and structured=lesson on ice fishing). Three rounds of email messages were sent out over a six week period and a draw to win a \$500 gift card was used to encourage agencies to complete the survey. Observations from quantitative survey were utilized to stimulate discussion amongst participants at a workshop attended by recreation and park managers and practitioners (n=26) held at the 2013 Alberta Parks and Recreation Association annual conference. Thematic analysis (Braun & Clarke, 2006) was used to identify patterns in respondents’ definition of play and the types of activities they identified as unstructured and structured. Basic descriptive statistics using SPSS 21.0 were calculated from the numeric data.

### Findings/Discussion

The first round of data collection yielded 94 usable questionnaire responses. The largest number of responses came from small towns (36%) followed by ‘midtown’ neighbourhoods located in large cities (23%), and suburbs (17%). The majority of responding programs were located in “mixed income” neighbourhoods (42%), followed by middle income (32%) and low income (13%). The individuals who completed the survey on behalf of their agencies were mainly Directors (63%) in comparison with Teacher/Program leaders (26%) and Assistant Directors (11%). Respondents reported a fairly high length of time in the field and current position, averaging 10 years in the field and 8 years in their current position. Children ( $\leq 12$  yrs.) and youth ( $\geq 13$  yrs.) enrolled in the responding programs attended their afterschool programs an average of 108 minutes/day. The final sample included a range of programs in terms of length (e.g., year round programs, special six week special offerings, once/week meetings, and seven days/week programs) and activities offered (e.g., arts, sports, recreation, adventure camps).

Table: 1	n	Offered by program		n	Minutes/day	
		Yes	No		Summer/ Winter	Summer
Play	94	77 (82%)	17 (18%)	na	na	na
Activities in outdoor settings	74	69 (73%)	5 (5%)	na	na	na
Outdoor structured activities	61	54	7	58/63	62	33
Outdoor unstructured play	68	64	4	58/67	73	33
Activities in nature-based	77	54 (57%)	23 (25%)			

Table: 1	n	Offered by program		n	Minutes/day	
		Yes	No		Summer/ Winter	Summer
settings						
Structured nature based activities	41	35	6	39/43	42	23
Unstructured nature-based play	44	43	1	39/43	114	31

Note: Indoor structured and unstructured play was not measured; the high levels of missing cases reported for the outdoor and nature-based setting statistics are due in part to programs that do not offer outdoor activities (n=5) and a high attrition rate that occurred after the initial question that solicited respondents' definitions of play (n=25).

Eighty-two percent of programs offered some form of play to their participants, 73% offered outdoor activities, more of this was unstructured than structured, and 57% offered activities in natural environments, where again unstructured play was more prevalent than structured play (see Table 1). In other words, 18% of programs that responded to the survey offered no play opportunities, instead focusing on skills practice and structured activities such as swimming lessons. The higher rates of unstructured activities were somewhat surprising as studies suggest that children are over programmed and over structured (Ginsburg, 2007; Turpin, 2008). The nuances of how respondents defined "unstructured play" explain, in part, this higher rate. The semi-structured interviews with practitioners in Phase 3 of this project may help explain the quality of these unstructured outdoor experiences.

Program participants spent more time outdoors in the summer time. This finding parallels studies that document higher rates of outdoor activities when temperatures are more amenable (Cleland et al., 2008; Ergler et al., 2013). Additionally child care facilities in Alberta are required to keep children indoors when the ambient or wind chill temperatures fall between -20 degrees Celsius. The impact of "mud season" (spring) on opportunities to get children outdoors, which several program administrators stated was a bigger challenge than winter conditions, was not assessed by the survey.

When asked about their satisfaction with the time spent in outdoor and natural spaces, as well as the size and features of these outdoor and natural spaces, respondents were somewhat satisfied with the spaces. The challenge that programs face is moving these spaces from "okay" to "great" spaces where children and youth can have positive, meaningful and transformative experiences. The primary outdoor activities areas were reported as mainly containing "some natural elements" (55%), and "many natural elements" (24%). Only 6% reported using a "fully naturalized space." Other studies corroborate this observation as it is the quality of the outdoor space (e.g., presence of water, opportunities to

manipulate natural and human made objects, accessibility) that enhances beneficial outcomes and length of stay in outdoor spaces (Aarts et al., 2010; Ellaway et al., 2007)

Chief concerns with outdoor areas included insects, traffic, trash and crime; however none of these were “very important” concerns to the reporting agencies. The top constraint to providing outdoor play was equipment availability, and access to/amount of nature was the chief constraint to providing nature-play. Transport and clothing challenges were constraints commonly experienced in facilitating outdoor activities. To deal with hazards and constraints, programs reported a range of activities including: engaging in annual hazard assessment and daily hazard scans and reviews prior to releasing their charges outside; litter pick up routines that included program participants; engagement of participants in wildlife preparedness programs (e.g., Bear Aware education in rural areas); keeping extra clothing on hand for underdressed children; and keeping garbage cans clean to reduce wasp populations.

One solution to facilitating access to nature in the Alberta context, particularly in winter months is the idea of bringing nature indoors. Programs were asked about the degree to which they encourage children’s ‘interaction’ with nature indoors and in what ways. Forty percent reported they had many windows at children’s eye-level with views of nature, while 40% stated they had some, and 21% provided no windows with such views. When asked if they could open these same windows to expose participants to the smells and sounds of nature, 56% responded they could open their windows, while 42% had no windows, or could not open their windows. Most common approaches to facilitating children’s access to nature indoors included seasonal activities, followed by incorporating natural elements into creative work, stories and lectures on nature and observing live plants and flowers. Cultivation of life plants and care of live animals was not solicited, and should be in subsequent data collection efforts (Laadsoharju et al., 2012).

## **Conclusion**

The study may not provide a valid representation of nature play opportunities afforded by Alberta afterschool programs due to a number of reasons: (1) the use of a convenience sample of afterschool programs; (2) a high number of program directors completed the survey and they tend to be more removed from the actual delivery of children’s’ programming; and (3) a high rate of attrition, common in online surveys, resulted in higher rates of missing data for variables measured at the end of the survey (e.g., minutes engaged in structured and unstructured play). Nevertheless this study serves a starting point in attempts to document children’s and youth’s access to outdoor and nature-based play, a topic that appears to have received little attention from researchers.

Winter in Alberta does pose some challenges to getting children and youth outdoors. In addition to exploring ways of bringing nature indoors, we discussed with ARPA workshop

participants in Phase 2 of the study, how to facilitate access to nature and outdoor spaces in the winter. Forest kindergartens developed in Europe (Anning, 2006; Leyden, 2009; O'Brien & Murray, 2007) may provide some inspiration for policy and program change. Workshop participants also mentioned increased use greenhouses and conservatories managed by partner organizations such as public schools and stronger land use zoning and development policies that ensure that nature is nearby, especially in new subdivisions. These and other solutions outlined by data collected during the qualitative portion of this project will assist Alberta's after school programs address the constraints and issues noted earlier in this abstract.

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