Youth Day in Los Angeles: Connecting Youth and Nature with Technology

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Introduction

In a statewide survey in Oregon, parents indicated how much time their child spent outdoors relative to their own outdoor childhood experiences. The results indicated children spent as much time as their parents did as children in structured outdoor activities (such as organized sports), but they spent much less time than their parents did as children in outdoor chores and outdoor play (Lindberg 2007). The same study found that outdoor skills have changed over the generations, with younger generations having fewer nature-based outdoor skills (such as pitching a tent or cooking outdoors) in comparison to their parents as children (Lindberg 2007). Louv (2005) also suggests that children today suffer from a nature-deficit disorder. His thesis was that children deprived of the spiritual, emotional, and psychological benefits of exposure to nature are more prone to depression and attention disorders, and miss out on improved cognitive development, creativity, and cooperative play. What can be done to change that trend? This paper reports findings from an exploratory research effort examining whether

children's outdoor activity could be increased or enhanced by the infusion of technology into outdoor activities.

Setting up Youth Day

The U.S. Department of Agriculture Forest Service hosted a recreation forum series across the United States in 2007. Regional in focus, the forums were meant to obtain information about needs and opportunities for success in meeting those needs from members of the public and outdoor recreation partners. During the Partners Outdoors Conference (Lake Arrowhead, CA in January 2007) more than 30 persons participated in planning the regional forum to be held in Los Angeles in March 2007. A subset of the planning committee formed to conduct an exploratory study to engage children in outdoor recreation activities, to determine the success of the effort, and then to develop a process for others to follow. The result was Youth Day, March 2007, in Los Angeles. The ages of the 38 youth participants at Youth Day ranged from age 6 to age 17. There were 20 boys and 18 girls.

The need for active participation (Sebba 1991) directed the actions taken on Youth Day. For the exploratory study, to determine if kids are attracted to the outdoors by technology, four activities were offered—two were dependent on technology and two were not; further, we "matched" a technology dependent activity with a similar non-technology dependent activity. Thus, the technology dependent activity of camera safari (where each child borrowed a digital camera and took pictures of things that interested them as they took a short hike) was "matched" with the non-technology dependent

activity of etching/rubbings (on paper of natural surfaces of their choice). Both of these can be considered artistic expression activities (see Table 1). The technology dependent activity of geocaching for treasure (where each participant used a global positioning system unit to locate hidden treasure along a trail) was matched with the non-technology dependent activity of a nature scavenger hunt (where each child had a list of items to locate along a trail). These can be considered a treasure hunt. Our purpose was to determine if technology matters in youth outdoor participation.

Table 1. Type of activity at youth day by dependence on technology.

Type of Activity	Technology Dependent	Non-technology Dependent
Artistic expression	Camera safari	Etchings/rubbings
Treasure hunt	Geocache	Nature scavenger hunt

Methods

Data were collected on two areas: (1) votes by activity and (2) observer notes by activity.

Votes by Activity

Korpela, Kytta and Hartig (2002) used scales with images of faces that represented levels of agreement (happy face) and disagreement (sad face). These were tested on youth from ages 8 to 13. Similarly, we used cards (green, yellow, and red) for the participants to rate each activity. The data collection team has a script card they read to participants. The participants selected green to indicate if they liked the activity ("it was cool," "it rocked") and red if they did not ("it was dumb," "it was a waste of time") Yellow indicated they were undecided ("not sure," "it was alright").

Observer Notes by Activity

We also had adults observing each group of children, reporting back what they heard. We assigned observers to particular activities rather than have them trail a group of children all day. This was done so the observers would be experts at a specific activity and would not bond with a particular group of children. We asked observers to restrict their activities to observations (rather than assist the kids with activities, for example) and to look for: interest in the activity (e.g., did the activity hold youth attention for the entire time?), ease of understanding (e.g., was the activity easy to do?), ease in the outdoors (e.g., were the youth comfortable in the out-of-doors?) and social interactions (e.g., did the youth talk about the activity amongst themselves?). We provided notebooks for the observers to take notes and had them debrief with research team members after each round of activity.

Results

Votes by Activity

As Table 2 reports, the majority of youth voted "green" (or "it was cool," "it rocked") on every activity. However, more voted "green" for the activities of geocaching for treasure (92%) and camera safari (86%) which were the technology dependent activities, than voted "green" for the non-technology dependent activities of nature scavenger hunt (76%) and etching/rubbing (62%). Only one person voted "red" (or "it was dumb," "it was a waste of time") for any activity. The etching/rubbing activity received the highest percentage of yellow (or "not sure," "it was alright") votes.

Table 2. Youth votes by activity.

	Red	Yellow	Green
		Percent	
Geocaching for treasure	0	8	92
Camera safari	0	14	86
Nature scavenger hunt	3	21	76
Etching/rubbings	0	38	62

Key:
Green was used to indicate the youth liked the activity ("it was cool," "it rocked")
Red was used to indicate the youth did not like the activity ("it was dumb," "it was a waste of time")
Yellow indicated the youth were undecided ("not sure," "it was alright")

Observer Notes by Activity

We asked the observers to watch and listen to the youth to determine if the activity held youth attention for the entire time, if the activity was easy to do, if the youth appeared at ease in the outdoors, and if social interactions were occurring among the youth.

Some of the observer statements are below. For the technology dependent activities (camera safari and geocaching for treasure) the observers said that the youth displayed a lot of interest in the activities and the technology, and some interest was displayed toward animals. They also spoke of the excitement of the youth for these activities and said that the youth thought the activities were fun. The observers also thought the camera safari was easy for the youth to do but it took more effort to teach them how to geocache. Most felt the kids displayed a lot of comfort in the outdoors, although some trails were steep especially for the younger participants, and they reported that some social interactions were occurring.

Camera safari

- "Kids were very interested."
- "Kids were fascinated by lizards and were chasing them."
- "Kids easily operate the camera."
- "They only needed brief instructions to get it."
- "They were careful when going up the steep areas of the trail."
- "[The youth]...seemed to like the views"
- "The oldest group went the fastest, farthest and was more social with less nature-oriented discussion."
- "The older ones seemed to like being with each other."

Geocaching for treasure

- "[There was] excitement due to activity being a treasure hunt."
- "Several kids, with no one prompting, stated geocaching was the 'funnest' one of day."
- "At the end of the hunt the kids wanted more information on the GPS unit—how to program it and what else to use it for."
- "Younger group needed more basic explanations with repeated frequency."
- "They all needed explanation of how to hold the GPS unit out front and move in one direction until the unit receives a signal from the satellites."
- "Liked being outdoors and seeing things."
- "[The youth are] sponges taking up nature and all surroundings."
- "Problem solving among the entire group enhanced the experience."

For the non-technology dependent activities (etching/rubbings, nature scavenger hunt) there was less consistency in the observations. Some observers thought the activities were too childish while other observers said the older youth were quite interested. All observers thought the kids found the activities easy to do, while some said they were too easy. Most observers felt the youth were at ease in the outdoors. There was little consistency on social interactions with some observers remarking that little interaction was taking place and others saying there was quite a bit of interaction, even when discussing the same activity.

Etching/Rubbings

- "Younger kids seemed more interested."
- "The [older youth] were reluctant to stop."
- "One kid said 'Foil is for more than wrapping food—it is for art!'"
- "Tasks were easy to do."
- "It was too easy for some kids."
- "…kids all seemed comfortable outdoors."
- "Not much interaction between kids when etching but [interaction] increased at art center."
- "The teen girls talked a lot together, but not about activity."

Nature scavenger hunt

- "The youth really paid lots of attention and focused on their activity."
- "The youth were most excited about seeing a lizard—boys more than girls."

- "Some were taking time to do very detailed drawings in their booklets."
- "It was very easy for the kids to follow instructions and keep up with the activity."
- "They liked the environment."
- "The children would talk to their partner, but not talk to many others."
- "The kids were talkative and asked questions."

Conclusions

A survey of Los Angeles County (southern California) residents found that less than half the respondents had visited a national forest, state park, or open space preserve outside of a city during the height of travel season for even a 1-hour excursion (Tierney, Dahl and Chavez 1998). In a study of 50 years of use of various public lands in the U.S., national parks in Japan, and national parks in Spain, Pergrams and Zaradic (2008) reported an ongoing and fundamental shift away from nature-based recreation. At the same time, consider that the primary role played by diet and physical activity in emotional and physical well-being is complemented by secondary roles played by connections to nature and social communities (Pretty, Griffin, Sellens and Pretty 2003). These authors suggest that closeness to nature increases sense of well-being, as well as the likelihood of understanding of and care for nature, and its rediscovery, can lead to transformations in people and nature. It also suggests that disconnections are harmful – both to individuals and to societies. How then do we make the reconnections?

The data evaluated here suggest the use of technology to get youth outdoors. However, these findings are based on an exploratory study of 38 youth. The results cannot be generalized beyond the youth who participated. Much more research needs to be conducted with youth to confirm and refine these results. For example, exact replications of the study conducted (four specific activities) can test technology versus the non-technology dependent activities. In addition, follow-up studies might examine if the interest in these activities continues beyond the testing day. Another set of studies might examine age and use of technology in outdoor settings and specifically whether some activities are better suited to older or younger youth.

As well, future studies might examine Barnett and Weber's (2008) thesis that benefits accrue to young children from their participation in extracurricular recreational activities, and in particular, they might examine natural area activities. The future work might also examine physical activity during outings such as Youth Day, especially for adolescents (Bradley, McMurray, Harrell and Deng 2000; Caspersen, Pereira and Curran 2000), but also for the influence of technology on engaging or disengaging youth (Allison et al. 2006, Dwyer et al. 2006, Greiser et al. 2006).

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