



10th International Camping Congress International Research Forum

Abstracts

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The Powerful Impact of Empowering Teens in Camp Program Planning and Delivery

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Camp programs are noted as contexts where optimum youth development can take place (ACA 2005, 2006). When teenagers, only a few years older than the campers themselves, are empowered to plan and deliver camp, we find that they experience enhanced positive youth development experiences in the camp environment (Bird et al, 2008; Ferrari & McNeely 2007). While only few studies have examined the positive impact of camp on young camp counselors, even fewer have compared the outcomes of teen counselors with those of campers. For instance, research has shown that teen staff perceive greater supports and opportunities in the areas of supportive relationships, safety, skill building and youth involvement compared to campers (Bird, et al., 2008). Does this mean that teen staff are also more likely to experience greater outcomes in certain key areas that camps hope to impact? For example, do they show greater responsibility, teamwork or connection to nature? And if so, what are the factors that enhance teen staff outcomes in these areas?

Background

A few studies have examined the impact of camp on camp counselors. Research in this area shows that camp staff report high levels of social skills, initiative, identity, teamwork and interpersonal relationships (Ferrari & McNeely, 2007). Findings also show that program intensity and duration are factors in developing leadership and responsibility.

In 2007, the California 4-H Camping Advisory Committee published its first research report, *Beyond Evaluation: Findings from the California 4-H Camp Study* (Bird, et al, 2008). The two-year study used the framework and protocol developed by Youth Development Strategies, Inc. (Connell and Gambone, 2002) and adopted by the American Camp Association in their benchmark and program improvement study (ACA, 2006). It examined how youth experienced the camp environment: if our camps were places where youth developed positive relationships with peers and adults, felt physically and emotionally safe, made decisions, and learned new skills. *Beyond Evaluation* allowed 4-H to assess our strengths and weaknesses in how youth experience the camp environment, and it still informs the Advisory Committee's work in strengthening our camp programs.

In this study we found that youth experience camp differently depending on their age and role. We found significant differences in how safe youth felt; in feelings of belonging, and how engaging they found camp. And, in California 4-H camps where teenagers plan and deliver the week-long experience, these young staff members scored highest.

Through a second multiple year study, the California 4-H Camping Advisory Committee assessed program impact on campers and teen staff. Based on our earlier study and other research on positive impacts of camp counseling (Ferrari & McNeely, 2007), we hypothesized that camp staff would show higher outcomes than campers. We are now interested in a deeper understanding of the factors that influence the camp staff experience. In a youth participation

framework, optimum youth development occurs when young people are driving their own development, when they have a say in decisions and occupy key leadership roles. Might the difference between campers and teen staff (accounting for age and other factors such as number of years attending) be explained through a pattern of sustained leadership opportunities in the context of a safe and supportive group?

Theoretical Framework

Through several projects, ACA has led the way in collecting and utilizing data to understand and improve the camp experience. Their initial outcomes study, *Directions* (ACA 2005), assessed campers' positive identity, social skills, physical & thinking skills, and positive values & spirituality. Today ACA supports camps with the American Camp Association Youth Outcomes Battery (ACA-YOB), a tool kit that enables camps to assess their impact on campers in 11 domains. Showing that camp creates positive youth outcomes—and helping camps provide an optimal experience—is clearly important to the field.

Programs that involve young people in shaping the contexts of their development have more positive outcomes than traditional programs that aim to serve young people as recipients of programming (Gambone, Klem & Connell, 2002). Young people gain more when they not only participate in program, but also have a role in developing, implementing and evaluating program. In explaining the potential benefits of the camp experience for camp counselors, it might be useful to look at their experience through the framework of how they drive their own developmental experiences, and the support they receive in doing this.

Methods

The research team utilized the American Camp Association Youth Outcomes Battery (ACA-YOB) and determined which ACA-YOB components would be best to measure based on 4-H's focus and philosophy. The team selected four: Teamwork, Interest in Exploration, Responsibility and Affinity for Nature. Teamwork and Responsibility were selected because teenagers, with guidance from adult partners, plan and deliver the program in California 4-H camps. Teens meet for several months prior to camp for planning, then serve in authentic leadership roles as camp staff. Interest in Exploration and Affinity for Nature were selected because of 4-H's emphasis on science, engineering and technology. Once identified, we created a survey derived from the ACA-YOB to measure these constructs, included demographic information (age, gender, camper or teen staff), and administered the survey in summer of 2012 and again in 2013.

Seven California 4-H resident camps participated in the two-year study. Camps were 5-7 days long, included youth from both rural and urban communities, and each served about 100 youth (year one N=758; year two N=778). Research team members administered surveys on the last full day of camp.

We analyzed data in SPSS and compared camper and staff scores using t-tests and one way ANOVA to check for effect of age and number of years attending camp.

In summer 2014, the research team will conduct focus group interviews with teens and adults at camps in the study to understand better how the camp staff experience is constructed and what elements correlate with higher outcomes.

Results

Data from the survey showed that youth generally enjoyed camp (mean 8.34 on a 10 pt. scale). The population was 57% female and 43% male; most between the ages of 10 and 14. Thirty-four percent were first-time attendees. Year two data did not show significant differences from year one data, indicating that there was little change in youth outcomes across the four constructs.

Almost 23% of youth surveyed filled staff roles. Controlling for age, teenagers who planned and delivered camp scored higher than campers (including teenage campers) on three of the four constructs, namely Responsibility, Interest in Exploration and Teamwork—all but Affinity for Nature. In comparison with ACA normative data, youth staff scored in the 70th percentile for both Teamwork and Responsibility, compared with campers who scored in the 50th and 60th percentile, respectively.

Camp staff also scored higher than campers independent of the number of years they had attended the program. While camp staff who had attended for more years showed significantly higher outcomes in the areas of Teamwork and Responsibility, number of years at camp did not impact camper scores in any way.

We did find a difference of moderate effect size between year one and year two data in three areas: age, role, and years at camp. These three items correlate in that one must be a teenager to serve in a staff role, and older youth are more likely to have a longer tenure at camp. Again, this finding supports our past study that the experience of serving as a teenager on camp staff is decidedly different—and in many ways, a richer youth development experience—than participating as a camper at 4-H camp.

We will complete data analysis for our focus group interviews by the end of September. These will shed light on our understanding of what elements of the 4-H teen staff role may enhance their youth development experience and makes their outcomes so much greater.

Implications

Results parallel findings of the initial 4-H camp study documented in *Beyond Evaluation*, where teen staff scored significantly higher than campers in most every construct. This data suggest that teens who attend 4-H camp as campers—not in leadership positions—do not realize the same outcomes as those on staff. Data supports findings from our first study that, at least in California 4-H camps, the teen counselor role makes a significant difference in the outcomes for youth. Most importantly, we were able to find this difference even when controlling for age and the number of years attending camp – two variables that might have accounted for higher teen staff scores in other studies.

One implication of our finding is that empowering teens to lead camp is an effective model that pushes positive youth development to the participatory level. Teens form lasting bonds with young campers who are only too eager to emulate these role models and step into leadership positions themselves when they get the opportunity to do so.

If we are better able to explain what factors characterize the higher outcomes for teen staff, these may be applicable to enhancing camper outcomes as well. Youth leadership at camp sets the stage for a participatory environment, and higher youth development outcomes follow.

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Summer Camp and the Advancement of Global Citizenship: An International Study

Authors: Stephen. M. Fine, Canadian Camping Association; M. Deborah Bialeschki, American Camp Association; Troy Bennett, University of Utah

Today's youth live in a complex and rapidly changing global landscape. While new technologies foster international connectivity, ideological tensions threaten to thwart peace efforts and young people across the globe stand at the forefront of both progress and conflict. Given the passion and eagerness for involvement that often characterize youth, many nations actively promote educational efforts that encourage young people to develop an inclusive and tolerant worldview.

Global or cosmopolitan citizenship is a concept often used to describe the aims of such efforts and generally refers to the extent to which a person understands her or his cultural and national identity within the larger global context (Bowden, 2003). Organized efforts to promote globally-minded citizenship take a variety of forms yet may miss the mark by treating youth as simply "citizens in waiting" (Osler & Starkey, 2003). Alienating youth from national processes can have many negative local and national consequences; therefore, inviting youth to serve as active and contributing members of society is critical to promoting citizenship in a global sense (Osler & Starkey, 2003).

Educators such as Wagner (2008) also argue that our schools are mired in educational content and methods dating from the industrial age; our children get more of the skills they really need outside of school, from extracurricular activities, personal exploration and social networking, if they are fortunate enough to have those opportunities. Our schools drill on facts and basic skills, and seldom encourage or even tolerate questioning, innovation, exploration, or collaboration - all critical to the global or cosmopolitan citizen of the 21st century. Wagner advocates children should learn "survival skills" that prepare them for life in a global society that stresses critical thinking and problem solving, collaboration and leading by influence, and curiosity and imagination acquired in settings that include group activities, open-ended exploration, and rich interactive learning environments that engage students.

Organized camping offers a unique curriculum that can encourage the development of global citizens and can be traced to the educational philosophy of Kurt Hahn, founder of Outward Bound, who advocated commitment to world peace, understanding between nations, development of responsible citizens, and character-building informed by experiential outdoor education (Rohrs, 1970). Osler & Vincent (2002) identify a cosmopolitan citizen as one who accepts personal responsibility, engages in civic commitment, works collaboratively to solve problems, respects cultural diversity, and the natural environment. These tenets follow Hanvey's (2001 [1976]) five dimensions of global awareness, as well as those advocated by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 1995).

The camp experience has also shown a unique capacity to transcend cultural and national boundaries (Fine & Tuvshin, 2010). Outdoor settings that provide young people with hands-on, small group learning experiences apart from their everyday lives are found the world over. Camps in general promote myriad benefits for youth, including self-confidence, social skills, and

spirituality (ACA, 2005; Bialeschki, Henderson, & James, 2007; Thurber et al., 2010). Although little is known about the camp processes that contribute toward specific camper outcomes, recent studies have shown that camp staff (Gillard, Witt, & Watts, 2010), small-group living (Fine, 2005) and the nature-based context (Browne, Garst, & Bialeschki, in press) are features unique to the camp setting that may foster positive youth development.

The Global Citizenship Research Project explores the efficacy of camp as a setting for the development of citizenship in a global sense. A pilot project (Phase 1 reported on in Hong Kong) suggested camp has intrinsic qualities in this regard. Unaltered camp programming specific to each camp were recorded as benchmarks. In Phase 2 (conducted during 2012) we created an intervention that focused on the use of specific global citizenship activities implemented by the participating camps' staff. This "global citizenship toolbox" provided the means to allow for intervention sessions, which will be analyzed to determine any variance in outcomes between typical camp programs and intentional programming around global citizenship.

In the effort to explore the extent to which the camp experience promotes the skills related to global or cosmopolitan citizenship, data were collected from campers at summer camps in seven different countries (Canada, Colombia, Greece, Japan, Mongolia, Venezuela, and the United States). A total of 1,569 campers (62% females and 38% males; $M_{\text{age}} = 13$ years) completed a self-report questionnaire comprised of 3 domains chosen to capture the domains of cosmopolitan citizenship outlined by Osler and Starkey (2003). Cosmopolitan citizens, to these authors, (a) have confidence in their cultural identity, (b) work towards peace and equity locally and nationally, (c) accept personal responsibility, (e) work collectively while respecting diversity, (f) recognize their world view while respecting the cultural heritage of others (Osler & Starkey, 2003). Measures of teamwork, problem solving, and interest in exploration from the American Camp Association Youth Outcomes Battery (ACA, 2011) were combined to form a 24 item questionnaire with 5-point response options anchored at "Decreased I am sure" and "Increased I am sure."

The Youth Outcomes Battery (YOB) is a battery of self-report instruments that can be easily administered to youth 10-17 years old, scored, and used by youth program professionals seeking an evidence-based outcome evaluation (Sibthorp et al, 2013). The YOB consists of 11 different subscales and includes measurements for Teamwork Skills (TW), Affinity for Exploration (AE), and Problem Solving Confidence (PSC). The TW scale consists of eight items that assess a campers' ability to assume different roles (e.g., leader, follower, team-player), put group goals above personal goals, and accept different opinions and perspectives. The AE scale assesses whether camp facilitates camper curiosity, inquisitiveness, and eagerness to explore new experiences that pertain to people, places, activities and ideas. The PSC scale measures one's confidence in defining, planning for, deciding solution steps for, and evaluating solutions for problems.

Camps were asked to first deliver the questionnaire to campers in a typical camp session that did not include the Global citizen intervention activities. This group served as a "benchmark" of the outcomes of a typical camp experience. Camps were then asked to deliver intervention activities from the "global citizen toolbox" to a camp session that was considered similar to the benchmark

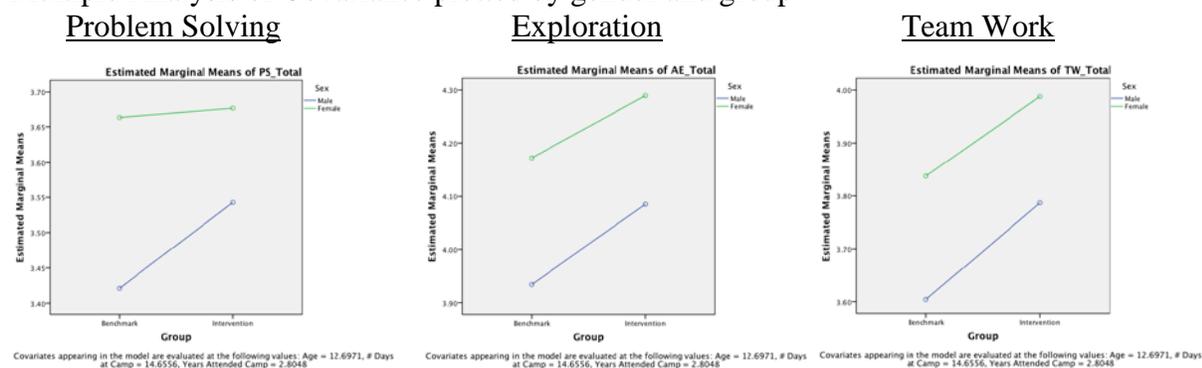
group. The questionnaire was then delivered to this “intervention” group toward the end of their camp experience.

Visual inspection of data indicated normal distribution within expected ranges. The three YOB subscales were found to be internally consistent with Cronbach’s alpha scores ranging from .84 for TW and AE to .88 for PSC ($p < .05$). Scale means ranged from 3.6 for PSC to 3.8 for TW and 4.2 for AE on a 5-point scale. Total outcome scores for each subscale were computed by adding the item scores together for each camper and then dividing this total by the number of items in the subscale. Correlations between total subscale scores were moderately high, with significant Pearson Correlation scores ranging from .570 to .664 ($p < .001$).

Multiple analysis of covariance was used to assess differences between the benchmark and intervention groups across age, gender, length of camp stay, and years attending camp. Results indicate that age and length of camp stay were significant covariates ($p < .05$) and were controlled at age = 12.7 and days at camp = 14.7. Significant main effects were found according to gender and between benchmark and intervention groups. Overall, the mean scores of the intervention group were significantly higher compared to the benchmark group for TW and AE, but not for PSC ($p < .05$). Females scored significantly higher than males across all three benchmark and intervention subscales ($p < .05$). Independent t -tests were conducted to determine effect sizes for these differences, with Cohen’s d scores ranging from .16 for AE by group to .34 for TW by gender when adjusting for family-wise error ($p < .008$). Scores in this range indicate a relatively small effect (Cohen, 1992).

This study sought to examine the notion of global citizenship in the summer camp setting and these findings suggest that campers across the globe feel they gain skills that might together contribute toward an overall sense of global/cosmopolitan citizenship. It is encouraging to see statistically significant differences in camper outcomes across camps located in different countries and representing different cultures. Additional efforts are necessary to examine ways to increase problem solving confidence related to global/cosmopolitan citizenship. The extent to which global/cosmopolitan citizenship varied across gender is also interesting. Further research is necessary to explore the different ways males and females experience the activities in the global citizen toolbox that are common around the world. This study is the first of many ways researchers and camp administrators might explore how the camp experience helps campers become competent and contributing members of our increasingly globalized society.

Multiple Analysis of Covariance plotted by gender and group



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Resilience at Summer Camp - A Pilot Study using the Child and Youth Resilience Measure

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Resilience is the capacity to overcome "hard times" that a child or young person may experience yet still do well for themselves in spite of adversity. Studies from the field of youth development suggest that resilience depends more so on what others do to shape the world around us than our own inherent tenacity or grit. As such, resilience is determined more so by nurture than nature, and camps as places of caring supportive community can do much towards bolstering children against personal difficulties (Ungar, 2012).

Resilience is neither a static state nor an intrinsic trait but something which can be developed within an individual (Liebenberg et al., 2011). It depends on interactions between a young person's environment and their accumulation of experiential resources. The availability of resources plays an important part and includes opportunities within the sectors of workplace, education, health, recreation, and social/community services (Ungar, 2011).

Personal resilience is associated with capacities such as: forming attachments, self-regulation, cognitive skills, temperament; as well as relationships with family, friends, peers, and the ability to interact with the broader community. At camp, over a relatively short period of time, "multidimensional processes" initiated through situated learning, direct experience, positive self-concept, supportive peers and mentors, allow for attitudinal changes that can assist in overcoming personal adversity. The development of noncognitive skills, which include grit, tenacity, and perseverance, have been linked to long-term success and higher-order goals (Shechtman, 2013). As a place that successfully provides young people with apt resources to build resilience camp can be a life changing experience.

This pilot study utilized the Child and Youth Resilience Measure-28 (CYRM-28), which was designed as part of the International Resilience Project (IRP), of the Resilience Research Centre, Dalhousie University, in collaboration with 14 communities in 11 countries around the world. The measure was used within the Resilience at Summer Camp Pilot Study to explore the resources (individual, communal and cultural) available to youth aged 10 to 21 years old, that may strengthen their resilience by way of the camp experience.

Background

Current research suggests resilience can take place even when there are high risks factors associated with a child's environment. Originally designed for at risk youth populations within stressful family or school environments, aboriginal communities, foster and or residential homes, detention centres, etc., the CYRM -28 process and survey takes into consideration probable stresses and the role social and physical ecologies play in positive developmental outcomes.

The Child and Youth Resilience Measure (CYRM) - 28 (Resilience Research Centre, 2009) supports four propositions for understanding of resilience: 1) there are global, cultural and contextual aspects to young people's lives that contribute to resilience; 2) aspects of resilience

depends on the culture and context in which resilience is realized; 3) global factors that contribute to resilience are related to one another and reflect patterns specific to culture and context; 4) tensions are resolved in ways that reflect highly specific relationships between aspects of resilience.

Camp settings and experiences offer development and support for youth in a global sense. Camps service youth from an all encompassing social and cultural strata; as well as youth with physical, medical and emotional challenges. Research over the past decade has explored if camps are places where youth develop positive relationships with peers and adults, and if campers feel physically and emotionally safe. National studies from the US and Canada have confirmed that camps provide: positive developmental environments for youth, especially in providing supportive relationships with adults and peers (ACA, 2006), increased development in the areas of social integration, emotional intelligence and self-confidence (Glover et al., 2011). Additional studies have shown, broad opportunities for contextual learning and learning transfer within personal, social and environment domains (Fine, 2005), supportive relationships, safety, skill building and youth involvement for teens (Bird, et al., 2008), and transcendence of national and cultural boundaries through the social ecology inherent to camp communities (Fine & Tuvshin, 2010).

Method

Step One - In order to be sure questions included in the CYRM-28 make sense to the camp community in question focus group interviews were conducted with camp staff members and the directors.

The following prompt questions were used to generate conversation and questions:

“What do campers need to know in order to develop here?”

“What kinds of things are most challenging for you and your campers here?”

“What do you do when you face difficulties in your life?”

“What does being healthy mean to you and others in your family/community?”

“What do you do, and others you know, to keep healthy; mentally, physically, emotionally, and spiritually?”

Step two - site specific questions

Camp survey

1. I look up to my counselors and activity leaders.
2. I help the kids in my cabin because we all live together.
3. I know my camp counselors care about me.
4. Kids at camp think that I am fun to be with.
5. I can always talk to my counselor about how I'm feeling.
6. I can always count on my follow cabin mates to support me.
7. I am treated fairly at camp.
9. At camp I learn what I am best at.
10. I feel safe at camp.
11. At camp I learn new skills that will be useful later in life (like job skills and skills to care for others)

Step Three - Finalise language of the CYRM

Review the CYRM-28 together with the staff/director committee to ensure that site specific questions are phrased in a way that makes sense to campers. The site specific questions are included as a separate section in the survey preceding validated and normed CYRM survey scales.

The CYRM -28 was administered to a purposive sample of 37 campers and junior staff as a singular group at a residential summer camp in Ontario, Canada. 62% of the participants were female, 38% male. The average age was between 14 and 15 yrs old. All questions were read aloud and comprehension assured. Administration took between 45 and 60 minutes.

Analysis and Results

The total CYRM score for the camp population was similar to the normative data for total CYRM score for low-risk youth populations (Resilience Research Centre, 2009). Mean camper scores were above the normative data score on subscales measuring individual resources, resources associated with one's relationship with their primary caregiver, and contextual resources related to a sense of belonging.

The youth at camp scored above the low-risk international norms on the CYRM. The scores for the site specific questions that came out of the focus groups were analyzed to investigate if there were any themes that might be related to the CYRM resiliency scores. Tests for factorability of the data indicated that the scores of the site specific questions were acceptable for factor analysis ($KMO = .664$). Principal component analysis utilizing direct oblimin rotation yielded three components (Eigen values > 1.0) which, together, accounted for 64% of the explained variance in the site specific scores.

Component 1 accounted for 35% of the explained variance. Site specific questions #7, #3 and #1 had rotated loading scores above .7 for this component in the structure matrix. These questions elicited ideas of "security" from the research team. Component 2 accounted for an additional 15% of the explained variance with questions #11 and #9 loading above .7. These questions elicited ideas of "confidence". The third component explained an additional 13% of the explained variance with questions #2 and #4 eliciting ideas of "fellowship".

The scores of the site specific questions comprising each of the components were correlated with each camper's scores on the CRM Individual, Relationship and Context subscales. Component 1, "security," items had significant ($p < .05$) correlations with the Relationship with Caregivers CYRM subscale and the Sense of belonging subscale. Pearson correlation scores ranged from .42 to .66. This relationship is interesting due to the perceived importance of the relationship between counselors and campers at camp and suggests that counselors may help create a sense of security and a sense of belonging.

One question in component 2, "confidence," had a significant correlation with the Individual CYRM subscale. The Pearson correlation score of .387 is relatively lower, however, this question, "camp helps me find out what I'm best at," speaks to building confidence as an

individual resource for resiliency and the opportunities that camp provides to explore different types of activities in a "safe" environment.

One item in component 3, "fellowship", also had a lower significant correlation with the Individual subscale at a Person correlation score of .34. The question, "I help the kids in my cabin", could speak toward the importance of having individual contributions to the group. The idea of fellowship at camp as a support for resilience is interesting and may not be fully captured by the CYRM, which seems to be geared toward supports in larger communities. This idea of fellowship seems important, especially on a global scale, and might be worth looking into within the camp context.

Overall, results indicate that campers scored above the norm for low-risk youth populations on measures of supports for resilience. Analysis of site specific questions indicated that themes related to security, confidence, and fellowship at camp were related to resiliency supports stemming from campers' relationships with their primary caregivers as well as the development of individual supports. Future research exploring these ideas through camps around the world are warranted.

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Parent Perception of Changes in Children After Returning Home From Camp

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While proponents of summer camp advance the notion that camp provides participants with a transformative experience, the impact of camp beyond the setting in which it takes place remains understudied and unclear. Camp professionals do, of course, speculate that camp benefits their participants long-term, but, in making such a claim, their conjectures are premised on anecdotal evidence. Collecting empirical evidence of transfer, thus, is crucial to positioning camp as a genuine catalyst for positive youth development. The purpose of this study, therefore, was to examine the extent to which the skills, knowledge, and values that campers develop during their summer camp experiences transfer to their home, community, and school environment based on parental observations.

Literature Review

When an individual learns something new from participating in an activity, transfer represents the application of that new knowledge, skill or value position in a different setting. Transfer is not a *fait accompli*. In formal education settings, for example, students learn information, but often fail to transfer it to real world contexts. Though capable of doing so, they often choose not to do so, because they do dislike the subject and have no interest in applying their new knowledge to their daily lives. Not surprisingly, then, Pugh and Bergin (2003) found transfer is directly related to motivation. When a young person feels a greater sense of self-concept as a result of skills transferring from one activity to another, he or she is more likely to be committed and perhaps even motivated to improve that skill (Hautala, 1988). Presumably camp, because of its focus on intrinsic learning, provides a learning environment that encourages campers to retain and use the knowledge they gained from their experiences.

Summer camp experiences are short lived, however, which may affect their transferability. If positive development outcomes do result from these brief experiences, then, understanding what, if anything, transfers from camp to other settings is important to assist camps in better planning and structuring their program offerings to support optimal youth development. It is not enough for camps to simply provide opportunities for positive developmental outcomes for youth and *hope* these outcomes continue to affect their campers after camp is over. Camps need to understand what, if any, outcomes transfer and adjust or improve their programs accordingly to facilitate optimal developmental growth opportunities beyond the camp experience.

Method

This study reports findings from Phase Three of the Canadian Summer Camp Research Project (see Glover, et al., 2013), a national study aimed at examining the outcomes children experience after participating in a summer camp program. For Phase Three, a survey instrument was developed to determine changes in attitudes or behaviour that parents noticed since their children returned from camp. Demographic information was collected about parents, as well as

information about their child. In total, data were collected from 1,405 parents, predominately from two-parent (80%) households with an average family income of \$110,000 to \$119,000. Age was re-coded into four incremental groups according to camper's approximate grade school levels: Pre-K to K (4-6 years), Grades 1 to 3 (7-9 years), Grades 4 to 6 (10-12), and High School (13-18). The average age group was 7-9 year olds. Nearly half (49%) of the campers were girls. Regarding returning campers, 64% attended the same camp as the year before. Regarding length of stay, 16% participated for less than a week, 46% for one week, 16% for 2 weeks, and 22% for more than 2 weeks. Over 110 different Canadian summer camps were reported by parents. The regional dispersion throughout Canada was: Western (18%), Central (23%), Ontario (41%), Quebec (12%), and Atlantic (6%). Program types included: residential (49%), day (21%), religiously-affiliated (16%), those designed for children with special needs (3%), and specialty (i.e. science, language, music, sport) (11%).

Five outcome areas were explored: (1) social integration and citizenship; (2) environmental awareness; (3) attitudes towards physical activity; (4) emotional intelligence; and (5) self-confidence and personal development. Among the five key outcome areas, parents were asked to rate statements based upon changes, if any, noticed in their child since leaving summer camp. Each item was scored so that a higher number indicated a stronger agreement (1= very strongly disagree, 6= very strongly agree). *Social Integration and Citizenship* (SOC INTG & CTZHP) was a scale comprised of 3 items regarding camper's ability to stay in touch with camp friends and/or staff and their sense of membership or belonging to the camp's broader community ($\alpha = 0.70$). *Environmental Awareness* (ENV AWR) was assessed in response to camper's ability to demonstrate more environmentally friendly behaviors and interest in outdoor activities since leaving camp. The two variables were strongly correlated, $r(1\ 121) = .73$, $p < .001$. *Attitudes towards physical activity* (PHYS ACT) was a scale comprised of 3 items regarding camper's involvement in more physically active pursuits at home, school, and/or community contexts since returning from camp ($\alpha = 0.84$). *Emotional intelligence* (EMO INTL) was a scale comprised of 4 items regarding camper's ability to better understand their own emotions and demonstrate sensitivity towards feelings of others ($\alpha = 0.91$). *Self-confidence and personal development* (SLF CONF & PER DVPMT) was a scale comprised of 4 items regarding camper's independence and ability to deal with challenges after attending camp ($\alpha = 0.93$).

Results

Parents perceived positive development in all five key outcome areas. Detailed analysis further revealed that gender and age were positively associated with changes in attitudes and behaviour. At the $p < .05$ level, a one-way ANNOVA revealed no significant association between age and ENV AWR, $F(3,1112) = 1.02$, $p > .05$; nor PHYS ACT, $F(3,1060) = 3.50$, $p > .05$. However, age differed significantly among SOC INTG & CTZHP, $F(3, 1128) = 36.49$, $p < .001$; EMO INTL, $F(3, 1059) = 5.13$, $p < .01$; and SLF CONF & PERS DVPMT, $F(3,1101) = 1.89$, $p < .05$. Post hoc comparisons using the Tukey HSD test indicated that for SOC INTG & CTZHP, the 13-18 ($M=4.46$) age group experienced significantly higher change than the 10-12 ($M= 4.01$) age group, which both experienced significantly higher change than the 4-6 ($M = 3.43$) and 7-9 ($M= 3.58$) age groups. For EMO INTL, the 10-12 ($M= 3.88$) age group experienced significantly higher change than the 4-6 ($M = 3.55$), 7-9 ($M= 3.55$), 10-12 ($M=3.64$) age groups. For CONF & PERS DVPMT, changes in age groups did not statistically differ from one another; 4-6 ($M = 3.90$), 7-9 (3.91), 10-12 (3.98), and 13-18 ($M=4.12$).

With respect to gender, the t-test conducted revealed statistically significant differences between boys and girls in SOC INT & CTZSHP, $t(1074.75) = -2.73$, $p < .01$, with girl campers ($M = 3.83$, $SD = 1.03$) receiving higher scores than boy campers ($M = 3.66$, $SD = 1.01$). However, there were no significant differences between boys and girls in ENV AWR, $t(1066.99) = -.008$, $p = .993$; PHYS ACT, $t(1017.98) = .177$, $p = .860$; EMO INTL, $t(1014.35) = -.587$, $p = .558$; and SLF CONF & PERS DVPMT, $t(1055.39) = .774$, $p = .440$.

Discussion

While the outcomes in the five domains of development examined were found to vary to some extent depending on differences among campers based on gender and age, it was very clear that all campers regardless of these differences experienced positive outcomes and growth. As a result, we feel confident in stating that Canadian summer camps of at least a week's duration provided, to some degree and for most children, an immersive experience that promoted development in five key outcome areas. According to parents, in other words, positive changes in attitudes and behaviour continued or maintained after camp. This finding aligns with previous Canadian summer camp research which found that learning transferability to daily life contexts can be traced back to the experiences that took place at camp (Fine, 2005).

With respect to differences in age, it is conceivable that older campers showed the greatest change in development because, with greater maturity and social experience, they were able to adapt to new situations with greater ease. Nevertheless, all four age groups examined were found to experience significant positive change, thereby providing good evidence that children continue to develop with subsequent camp experience. With respect to gender, though societal gender expectations may encourage girls to demonstrate more caring behaviour through greater interpersonal skills, camp directors and programming staff may wish to consider ways to foster greater social integration/citizenship at camp among boys.

All told, the findings provide camp directors and programming staff with insights useful for design innovations and developments. Given evidence that important developmental outcomes can be achieved through Canadian summer camp participation, marginalized groups and children from social/cultural backgrounds where camping is not a tradition could be identified so that outreach efforts can be accordingly made. Follow-up research could offer additional insights into the influence of the camp experience on development among children from various backgrounds that differ in terms of socioeconomic status, race, ethnicity, etc.

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Camp Research in the United States

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Camp research has been undertaken in the United States for almost 100 years with the early work focusing primarily on how camp built character in young people. A steady number of research studies have been evident over the past several decades. This research is laudatory in that it has been done from a variety of disciplinary perspectives and has been conducted by students and researchers from across the US. Current trends have focused on using theoretical underpinnings while at the same time emphasizing how research can guide evidence-based practice. Methods of research have expanded as well as have efforts to translate the research into practice. However, all these trends can be further augmented in future research. Important concerns for the future in the US are to help dispel the “myth of the R word” to identify ways to use evaluation and research together, and to move on to address the “harder” questions about the outcomes of camp for individuals and the complex interrelationships of program and leadership as it influences those outcomes.

Building comfort in outdoor settings: How participation in multiple nature-science programs during the school year influence children’s attitudes and comfort in nature?

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Relevance of research purpose and research question(s) to professional needs & Interests

Research indicates that repeated experiences in the outdoors build recreational skills and attitudes towards the environment (Scott & Willits, 1989; James, Bixler & Vadala, 2010). Camps not only offer opportunities for multiple outdoor experiences to children during the summer but during the school year through environmental education programs. However, these traditional environmental education experiences at camp can be a one-time experience and in an environment that may or may not be nearby/local for the child. The provision of multiple nature and science programs, whether in-school or field based trips can enhance both environmental attitudes and knowledge of science. In America, nature centers can and do provide such opportunities for children. The purpose of the study is to assess how middle school students’ participation in a nature center in-school science programs during the school year influence their attitudes and comfort in nature.

RQ1: Do multiple experiences with the nature center staff and program change student’s attitude toward the environment?

RQ2: Do multiple experiences with the nature center staff and program change student’s comfort in the outdoors?

This research will describe 10-11 year old American experiences with the outdoors as well as their expectations of how scared they might be of different events that could happen in the outdoors and at camp (Stung by a bee, see a snake, touch poison ivy, get lost, etc.). Camps interested in connecting children to nature on a daily basis might find this study of interest. This study can offer camp directors the following: 1) A better understanding of a camper fears of outdoors. 2) How to help campers be more comfortable in the outdoors and 3) encourage outdoor recreation skill development. By diminishing fears and increasing comfort, camps can continue to foster outdoor recreation participation and environmental ethic in their campers.

Theoretical Context

At present, we live in a day and time in which American youth spend less time investigating and exploring their local surroundings. Richard Louv’s (2005) book, *Last Child in the Woods*, reveals how changes in our children’s daily activities have influenced their connection with nature and the outdoors. Future generations must reconnect with the local environment if there is any hope to preserve it. Classroom teachers must provide learners with experiences within and knowledge about their local surroundings. Learning must extend beyond the walls of the classroom and into the local community.

Active participation in the outdoors, whether part of one’s daily routine or as recreational activity, affords an individual with experiences that contribute to a foundational understanding of the natural sciences which can be further cultivated into an interest and respect for the environment. These outdoor experiences, past, present and future must be considered in the developing individual. Bixler and Morris (2000) define environmental socialization (ES) as: “. . . this process involves repeated experiences resulting in practical knowledge of the physical environment, conceptualization of self in terms of the environment in which rewarding actions

take place, and the development of primary and ancillary skills and competencies that allow rewarding activities to be carried out efficiently” (p. 67).

Research indicates that repeated experiences in the outdoors build recreational skills and attitudes towards the environment (Scott & Willits, 1989; James, Bixler & Vadala, 2010). However, traditional environmental education is typically a one-time experience and in an environment that may or may not be nearby/local. Provision of multiple nature and science programs to children, whether in-school or field based trips can enhance both environmental attitudes and knowledge of science.

Methodology

Data collected includes a pre/post questionnaire using the following scales: the New Ecological Paradigm Scale for Children (Dunlap, R.E., Van Liere, K.D., Mertig, A.G., and Jones, R.E.; 2007), Wildland Fear Expectancy Scale (Bixler, R.D. & Floyd, M.F.; 1999), and the Expectation of Encounter Subscales (Bixler, R.D. & Floyd, M.F.; 1999). An additional scale was developed based on the NHEE Model (James, Bixler & Vadala, 2010), asking about environmental socialization experiences. The pre-questionnaire was distributed in October (2011) and post-questionnaire in May (2012) of the school year to 5th grade students (10-11 year olds) whose schools participated in 6 field trips to nature center. Survey administration was performed during the time when students were in their science class at school.

Analysis procedures

Pre- and post- differences in environmental attitudes (NEP Scale), Wildland Fear Expectancy Scale, and Environmental Socialization scale understanding within and between groups will be analyzed with ANOVA. Overall pre/post differences will be analyzed with paired t-tests. Currently, only the pre-questionnaires have been analyzed with frequencies. The pre-questionnaire was administered to fifth grade children from two Title 1 (in America this means 40% or more students are enrolled in the Free or Reduced Lunch program) schools within an urban city in the southeast. A total of 83 participants responded to the pre-questionnaire (49 females, and 34 males).

The complete analysis of the pre/post data will be completed prior to congress in August 2014.

Conclusions

Since the full analysis is incomplete, the preliminary analysis of pre-questionnaire will be discussed. Based on the pre-data, there is a desire of both male and female respondents to visit nature centers. Over 71% of respondents would like to visit nature centers at least once a week. Respondents had high level of ecological concern, as evidenced by their scores on the New Ecological Paradigm (NEP) Scale for Children. There is a distinct contrast between what these respondents desire to do in the out of doors and what nature centers currently offer as programs. The most desirable activities involve structure, supervision, and do not necessarily involve the natural world. Respondents of both genders reported low desires to get dirty, or to collect/inspect insects, rocks, and streams. Respondents consistently expressed high desires to be involved with arts and crafts, scouting, and sports not nature. More analysis on fear expectancy and comfort in the outdoors is to be conducted with both pre and post questionnaire.

Practical applications

How can this research help camps? This study will provide a baseline of 10/11 year old environmental socialization experiences, what they expect to see in nature and possibly fear and to explore if multiple experiences in natural environments increase children's comfort in outdoors. Programming and staff training can be greatly impacted by this research. Programmatically, camps will be able to see what environmental socialization experiences to expand for campers. Directors, who are quite comfortable in outdoors, will gain understanding of campers' experiences, expectations and apprehensions about the outdoor environment. Thus helping train staff on how to alleviate fears and build comfort in outdoor settings.

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“It’s not just camp”! Understanding the Meaning of Children’s Cancer Camps for Children and Families

Authors: Catherine M. Laing, University of Calgary & Nancy J. Moules, University of Calgary.

Relevance of Research Purpose and Research Question to Professional Needs and Interests

In Canada, approximately 1400 children and adolescents under the age of 20 develop cancer each year¹. Three-year survival rates are reported at 82%¹, with the mortality rate being approximately one-sixth the incidence rate. Improvement in childhood cancer survival rates can be attributed to enhanced diagnostic procedures, multi-modal therapies, and the centralization of care and support services¹. The improvement in survival rates, however, is not without a cost; disruptions in family life, financial and employment difficulties, marital stress, generalized uncertainty, changes in routines, roles and relationships, life long side effects, and disruptions and restrictions in daily life are only some of the stressors that affect these families²⁻⁴.

In response to the stress of the childhood cancer experience, children’s cancer camps arose in the 1970s as a way for children and their families to escape the rigidity and severity of cancer treatment^{5,6}. Cancer camps are designed to meet the needs of the whole family at each stage in the cancer experience—from diagnosis through treatment, to survival or bereavement⁶. In 2008, the eight camps across Canada provided specialized oncology camps and community support programs to 5,252 children and their families – a 10% increase from the previous three years⁷.

The purpose of this qualitative study was to understand the meaning of children’s cancer camps for the child with cancer and the family. Most people do not realize that kids with cancer are left out. Their suppressed immune systems (from chemotherapy and radiation) mean they are highly susceptible to infection, and an infection in a child with little to no immunity is a life-threatening event. Because of this risk, these children are unable to attend school for the majority of their treatment, cannot see their friends and engage in social activities with their peers, and often miss out on significant events in their lives because of their disease. They also cannot attend regular summer camps (for healthy children), where children and adolescents engage in activities such as swimming, zip-lining, drama, and campfires. It is not untrue that cancer can rob a person of a childhood.

Methodology

This qualitative research was guided by philosophical hermeneutics as developed by Hans-Georg Gadamer (1900-2002). Hermeneutics is the art and practice of interpretation in human contexts⁸ and dates to 17th century biblical and theological textual interpretation. Throughout history, from religion to academia, hermeneutics has been used to interpret text and bring forth meaning. The heart of hermeneutics is to respond to the question: How is understanding possible?

Hermeneutics offers a way to know and understand the world and thus, the topic⁹. It is a well-documented and sophisticated method of research within the human sciences, and, particularly in health care, hermeneutics has been shown to have invaluable applied utility, offering insight into phenomena that has direct implications for practice¹⁰. Hermeneutics allows

us, with the help of others, to make sense of the particulars⁸ and arrive at deeper understandings of how children's cancer camps, for example, impact children and families.

Theoretical Context

Many anecdotal accounts of the benefit of cancer camps exist, however a paucity of research has been conducted in this area (16 studies, prior to this one). Be it in outdoor education, adventure programming, or children's cancer camps, the existing research is predominantly from the quantitative paradigm. Constructs such as self-concept, support, and psychosocial impact will always lend themselves well to psychometric measurements, and undoubtedly will continue to be the foci of future quantitative researchers. Interestingly though, much of the literature reviewed spoke to the limitations of these measures; how "something was missing," or at the very least, inadequately capturing the data.

There is much to be learned from children's cancer camps, starting with the most fundamental of concepts: how might we understand the meaning of children's cancer camps for children and their families? Missing from the current literature is the voice of the children and their families; What do they think? What do they have to say? What can they teach us? There is richness and complexity in the experience of cancer camps that has not, as yet, been captured by the existing research. There is an "intangibility" to camps that may lend well to qualitative research approaches¹¹. This complexity is difficult to access by quantitative means alone and, to the best of my knowledge, this is the first hermeneutic study related to children's cancer camps. Hermeneutic inquiry is well situated to make sense of some of the particulars and complexities of children's cancer camps. While quantitative approaches are useful in many instances, any single approach to understanding is limited, and many authors have argued that qualitative research can provide answers to questions that no quantitative approach could address^{8,12,13}.

Analysis Procedures

In hermeneutics, analysis is synonymous with interpretation, which occurs in the complex dialectic of research interviews with participants and interpretive memos based on the transcripts. The initial individual interpretations of researchers are then raised to another level of interpretive analysis in the research team's conversations through in-depth, rigorous, reflexive, and communal attention to the data. Hermeneutic work is not only a rich description of the phenomenon, but it must also strengthen the description through exemplars and rich data. Analysis involves careful reading, re-reading, and writing around significant interpretations that arise from the data attending to the criteria of sound interpretive work that allows deep understanding of the topic to emerge. The criteria involve context, agreement, coherence, comprehensiveness, potential, and penetration¹⁴. Rigor and integrity in this type of work is strengthened through the use of audit trails and field notes that detail methodological decisions^{10,15} as well as through team consultation and consultation with other experts in the field who will read the interpretations for soundness and resonance. Unlike some other qualitative methods, hermeneutics is not in search of themes, semantic coding, constructs, or theories, but rather events of understanding, of deepening our vision of a topic in such a way that the topic can be seen differently and can ultimately be practiced differently¹⁶⁻²⁰.

Practical Application

Findings revealed that camp means different things for different families, and much is at play in the cancer camp experience: finding acceptance and fit, grief as something to live with

versus “get over,” storytelling as a means of re-shaping and understanding traumatic experiences, and the solidarity of the community as one that creates intense, healing bonds.

Finding Fit and Acceptance

For many children with cancer, the first time they feel completely accepted is when they come to camp. Counselors and parents reported the changes in the children – what I believe to be the “side effects” of finding fit and acceptance – as increased confidence, improved physical ability, compassion toward others, and improved social skills. In many ways and for many children, camp is an oasis from the severity of their disease.

For parents, camp offers the opportunity to connect with, support, and be supported by, other parents of children with cancer, and for them, their refuge – their acceptance – comes by way of “me too” moments – moments that allow them to feel they are not alone. By recognizing their experiences in others, camp provides opportunities for parents to come to revisit, and re-know, their experiences with childhood cancer, and has implications for the Post Traumatic Stress experienced so often by this population.

Grief: Living With, Versus Getting Over

When we consider that grief can be understood as an experience that changes over time, but is never completed²¹, yet society treats grief as an experience one does, indeed, “get over,” it is not surprising to understand how families experiencing grief might find tension in this dichotomy. At camp, families experiencing grief are not expected to resolve their grief; in fact, I have offered that they are given space in which to understand their grief differently. The rituals and “magical moments” are ways by which this new understanding occurs, and the weight of their grief is lessened.

Storytelling: Understanding Differently

There are endless stories told at camp, and of camp. In telling stories, children make sense of their lives¹⁸, and are often able to re-process traumatic and confusing events in a way that makes sense to them^{19,20}. Camp offers the time, space, and opportunity for children to tell their stories. It also gives them the “material” for their continued stories once they return home from camp, and re-enter the “real” world. This research can serve as a reminder to those of us who work with children, that the importance, the “point,” of children’s stories lie in their stories, and in order to truly understand them, we must listen to their stories.

The stories of parents are filled with gratitude, and camp provides parents the opportunity to feel gratitude and express gratefulness. It is by the telling and retelling of their stories that parents and children can come to understand the meaning of childhood cancer differently.

Community: A Sense of Belonging

By bringing families to the same physical location, the community of camp instills connection among these families, creating a sense of belonging within its sense of community. It is this sense of community, I surmise, that contributes most to the belonging, understanding, and acceptance so often described by parents in this research. There can be a healing power in a community, where those who have lived, or are living, through something traumatic, are able to find greater healing than if they were not a part of the community. It is at camp where, often for the first time, families realize they are not alone in the experience of childhood cancer, and often where they can begin to live again.

Conclusions

There are two significant conclusions that come from this research. First, children's cancer camps need to be considered a necessity, versus a luxury, and should even be thought of as a psychosocial intervention for some children and families. Second, there is a tremendous amount of healing that occurs at these camps, and I believe cancer camps are actually a way of delivering psychosocial care to children with cancer and their families. It speaks to the need, particularly in cities, provinces, states and countries, where healthcare is always scrutinized, changed, and manipulated, to understand the value of this kind of program. I advocate for the use of the Social Return on Investment methodology, a principles-based approach that values change that would not otherwise be valued, when questions of social value are present.

The interesting paradox of improved children's cancer survival rates, coupled with a health care environment wrought with unprecedented financial constraints, speaks to the need for alternative ways of delivering health care. If children's cancer camps were more fully understood, it is conceivable that they too could become viewed, or even targeted, as psychosocial interventions. Camp, I determined, is not only fun, but also is an important part of children's and families overall healing process in the cancer journey.

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How Should We Evaluate the Outdoor Experiences: The development of Experiential Education Evaluation Form

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Background of the development

The purpose of study was to provide the effective evaluation tool for Outdoor experience and to understand the process for its outcome by developing the software, Experiential Education Evaluation Form: 3E Form. Although the great number of empirical outcomes of Outdoor experience have been reported since 1960th, the predictive factor of those outcome have received less attention in the literature because of the nature of complicated interaction among several elements, such as program, environment, participant and instructor. Means-end analysis, which was marketing technique developed by Guttman (1982) to understand customer's behavior, has been applied into outdoor studies to identify the process of outcome since 2000.

The literature review of the six dissertations and graduate thesis (Goldenberg, 2002; Haras, 2003; Holman, 2004; Marsh, 2007; Cummings, 2009; Pronsolino, 2009) showed that 1) adventure based programs featuring uncertain result and interaction among a several outcome factor were targeted, 2) the both deductive and inductive approach were applied with compare among type of activities and participant demographic data, 3) the subject were available from 30 and early youth, and 4) the both methods of questionnaire and interview were possible. On the other hand, some limitations to be operated by practitioner were identified, such as 1) coding into attribute (activities), consequence (experience), and value (outcome) were needed high reliability, 2) the complicated Hierarchical Value Map: HVM was hardly feedback into further program improvements and 3) the HVM was not obtained without using English software, Laddermap (Peffer and Gengler, 2003).

The concepts of the development

This study intends to maintain the positive characters of Means-End analysis, and to innovate the negative points not only for outdoor practitioner, but also for all experiential educators based on multiple experiential theories. The revisable concepts of this study were 1) to reduce the stress of coding and inputting data by limiting ladder into three steps and inputting it in any language text directly, 2) to simplify the HVMs by adjusting the size ratio of circle and line optimally to apply the model into practical improvement, and 3) to compare the HVMs statistically among a parameter variables such as type of activities, participant's demographic data, and high or low learner group. The software was developed using Java SE 6.0 program based on these revisable concepts.

The newness of 3E Form

This study obtained the following newness. 1) The new laddering questionnaire asking "outcome" of outdoor experience, "activities" caused the outcome, and the quality of the "experience" made less stress to answer. 2) Easy data sheet inputting with text data without coding helped practitioner to management data sheet and understand output. 3) Adjusting the size ratio of circle and line of HVM expected to understand the interrelationship among activities, experience and outcome, and to feedback them to further program improvement. 4)

Controlling the output with specific cord helped to focus on the predicative element connecting to the other cord. 5) Comparing the HVMS divided with specific parameter variables showed powerful evident which model is better to get outcome. By these newness, this study took patent in Japan.

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A Preliminary Study of Sustainable Practices by a Nationwide Sample of Camp Directors

Authors: Erik Rabinowitz and Joy James, Appalachian State University, and Michael Tzinberg, STL Yoga.

Relevance of research purpose and research question(s) to professional needs & Interests

In an effort to determine top emerging issues The American Camping Association (ACA) has administered two surveys to professionals in the camping industry. In 2009 and 2011 the results of the surveys showed sustainability practices as a key emerging issue that is becoming increasingly important to camps (ACA, 2012). Sustainability is important for camps to consider as next to the national, state and municipal parks, camps manage some of our most important natural resources. Additionally, camp's sustainable and practices could be important to recruitment, long-term success, profitability, marketing and even the creation of environmental ethics for campers as well as parents.

The purpose of this study is to conduct an exploratory study and establish baseline data on the camping industries sustainable practices, behaviors and potentially setup sustainable guidelines camps. This exploratory study should reveal what sustainable areas camps need to improve and where they are doing excellent.

RQ1: What are common practices amongst camps?

RQ2: Are there example of best sustainable practices that could be modeled by other camps?

HO1: Camp size, number of campers and staff size should have a negative effect on sustainability overall score .

Theoretical Context

The Center for Sustainable Tourism at East Carolina University's has created a plethora of helpful resources for improving sustainability, but not directed towards the camping industry (ECU, 2012). As of now there are no standard regulations or best practices in place for camps to follow regarding sustainability. Numerous camps have included "green" marketing, programs and practices, but which sustainable practices currently being used by summer camps is unclear.

Methodology

A scale was created based on East Carolina University's Center for Sustainable Tourism criteria categories for sustainable tourism:

Greenhouse Gas Emissions Management and Reduction, Solid Waste Management, Reduction, Reuse, and Recycling, Freshwater Consumption Reduction, Wastewater Management, Energy Efficiency, Conservation, and Management, Ecosystem and Biodiversity Conservation, Land Use Planning and Management, Air Quality Protection and Noise Reduction, Preserving the Social Norms and Cultures of Local and Indigenous Communities, Providing Economic Benefits to Local and Indigenous Communities, Responsible Purchasing, and Training and Education for Employees and Clients.

These categories were modified into 57 scale items (an exploratory factor analysis with varimax rotation loading on 10 factors). Reliability (scored a Cronbach's Alpha =.96) allowing for future study. The data was collected using an online rating scale(1-10), which included two sections : 1.

on sustainability practices and 2. on pertinent demographics (such as, acreage of the camp and size/population of the staff/campers). The survey was sent to the regional administrators of the American Camping Association (ACA). Then the regional administrators forwarded the survey to all camp directors in their regions. Only 38 camp directors responded (resulting in low response rate). Surveys were administered to (38) ACA camp directors throughout the country using a researcher created sustainability scale (Cronbach alpha coefficient was .96).

Analysis procedures

SPSS, excel and surveymonkey analysis tools were employed to conduct statistical analysis which included a correlation analysis. HO1 which rejected revealed there is no correlation between sustainability total score and acres, numbers of campers, and/or staff size. Areas that camps excelled in include recycling, land use management, conserving local ecosystems, and solid waste/air quality management. Areas that camps performed poorly include waste and fresh water management, emissions, and sustainability education/training for campers and staff. No correlation was found between the total sustainability score and camp size, staff or camper population; therefore, camps can achieve sustainability regardless of camp size or population.

Conclusions

The results show areas and aspects of sustainability practices camps are doing well and poorly. No correlation between sustainability, camp size, or size and population of campers and staff exists. Therefore, the size and population of camps does not have a direct impact on overall sustainability as hypothesized. There are numerous areas where camps are being very sustainable (i.e. providing recycling receptacles at camp and bulk purchasing.) However, sustainable areas that camps are not doing well need further examination (i.e. purchasing power from renewable resources and installing alternative sources of power at camp such as solar or wind.)

Practical applications

Including sustainability as part of their camp mission statement was recorded low, as such more should add this simple change. Camps could consider the following: 1) Purchasing carbon offsets, 2) Use renewable energy like solar and wind whenever possible, 3) Create a committee in charge of carrying out sustainability goals as well as implementation and monitor master plan, 4) Assess and evaluate sustainability practices to measure needs and progress (Sustainability calculators are available online to assist camps in this task).

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Effects of Outdoor Programs on Mental Fitness of College Students

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Abstract

The purpose of this study was to examine effects of outdoor programs on mental fitness of college students. We examined the effects of ‘outdoor sports camp’, ‘marine sports camp’, and ‘snow sports camp’, which were carried out as physical education programs for college students at Nagasaki International University. Before and after the outdoor programs, ‘profiles of mood states (POMS)’, ‘state-trait anxiety inventory (STAI-JYZ)’, and ‘sense of coherence (SOC)’ were measured as an index of mental fitness.

Results are shown in Table 1 and summarized as follows:

- 1) Effects of ‘outdoor sports camp’
STAI-JYZ scores for ‘state anxiety’ and ‘trait anxiety’ decreased significantly after the program ($p < 0.01$).
- 2) Effects of ‘marine sports camp’
POMS scores for ‘tension’, ‘depression’, ‘anger’, and ‘confusion’ decreased significantly after the program ($p < 0.01$). SOC score for ‘comprehensibility’ increased significantly after the program ($p < 0.05$).
- 3) Effects of ‘snow sports camp’
POMS scores for ‘vigor’ ($p < 0.01$) and ‘fatigue’ ($p < 0.05$) increased significantly after the program. STAI-JYZ scores for ‘state anxiety’ decreased significantly after the program ($p < 0.01$). SOC score for ‘SOC total’ increased significantly after the program ($p < 0.05$).
- 4) Differences between the three programs
Variations (Δ) for ‘anger’ and ‘confusion’ were significantly large within ‘marine sports camp’ compared with those of ‘snow sports camp’ ($p < 0.05$). Variation (Δ) for ‘fatigue’ was significantly large within ‘snow sports camp’ compared with that of ‘marine sports camp’ ($p < 0.05$).

These results suggest that participation in outdoor programs including variety of activity programs improves mental fitness of college students. Moreover, the effects (contents and amount) seem to be different among the programs.

Table 1. Mental fitness scores before and after the three programs

Variables ^a	Outdoor sports n=24			Marine sports n=39		Snow sports n=28		ANOVA	
							<i>F</i>	<i>p</i>	
POMS	Tension	pre	5.9 ± 3.4	6.3 ± 4.4	5.5 ± 4.4				
		post	4.0 ± 2.1	4.8 ± 4.4 **	5.1 ± 4.6				
		Δ	-1.9 ± 3.2	-1.5 ± 2.9	-0.4 ± 4.5	1.36	<i>n.s.</i>		
	Depression	pre	4.9 ± 3.6	5.9 ± 4.2	3.6 ± 3.1				
		post	3.4 ± 2.7	4.4 ± 4.3 **	3.5 ± 4.0				
		Δ	-1.5 ± 4.7	-1.5 ± 3.2	-0.1 ± 3.1	1.42	<i>n.s.</i>		
	Anger	pre	4.5 ± 2.8	4.8 ± 4.3	3.2 ± 3.5				
		post	4.3 ± 3.3	2.7 ± 3.1 **	3.3 ± 3.8				
		Δ	-0.3 ± 4.3	-2.0 ± 3.2	0.1 ± 3.7 †	3.29	<i>p</i> <0.05		
	Vigor	pre	9.8 ± 5.0	10.8 ± 4.1	9.8 ± 4.5				
		post	10.7 ± 4.8	11.0 ± 3.8	13.0 ± 4.7 **				
		Δ	0.8 ± 4.1	0.3 ± 4.5	3.2 ± 6.1	3.09	<i>n.s.</i>		
	Fatigue	pre	7.6 ± 3.0	7.7 ± 4.7	5.9 ± 5.2				
		post	8.7 ± 3.7	6.8 ± 5.0	8.8 ± 4.7 *				
		Δ	1.1 ± 4.4	-1.0 ± 3.1	2.9 ± 5.8 †	6.38	<i>p</i> <0.01		
Confusion	pre	6.4 ± 2.6	8.1 ± 4.1	5.5 ± 2.9					
	post	5.2 ± 2.8	5.9 ± 3.0 **	5.3 ± 3.3					
	Δ	-1.2 ± 3.3	-2.1 ± 2.8	-0.1 ± 2.9 †	3.70	<i>p</i> <0.01			
STAI	State anxiety	pre	42.9 ± 9.7	39.8 ± 10.6	39.7 ± 9.1				
		post	38.2 ± 8.7 **	37.3 ± 11.1	32.4 ± 9.7 **				
		Δ	-4.7 ± 7.0	-2.5 ± 11.0	-7.3 ± 9.8	2.04	<i>n.s.</i>		
	Trait anxiety	pre	45.0 ± 8.9	44.8 ± 9.8	42.9 ± 10.7				
		post	42.5 ± 8.6 **	42.8 ± 9.5	39.7 ± 10.4				
		Δ	-2.5 ± 4.6	-1.9 ± 7.1	-3.2 ± 10.6	0.21	<i>n.s.</i>		
SOC	SOC total	pre	55.5 ± 8.4	54.2 ± 11.5	57.1 ± 10.5				
		post	56.8 ± 9.0	55.4 ± 10.4	59.3 ± 11.4 *				
		Δ	1.4 ± 6.9	1.2 ± 8.0	2.3 ± 4.9	0.19	<i>n.s.</i>		
	meaningfulness	pre	19.3 ± 3.7	19.2 ± 4.2	20.5 ± 3.5				
		post	19.8 ± 4.3	18.9 ± 4.2	21.1 ± 3.3				
		Δ	0.5 ± 3.6	-0.3 ± 4.0	0.5 ± 2.0	0.69	<i>n.s.</i>		
	comprehensibility	pre	20.1 ± 4.2	18.9 ± 4.9	20.4 ± 5.5				
		post	20.6 ± 4.3	20.1 ± 5.0 *	21.1 ± 5.9				
		Δ	0.5 ± 2.5	1.2 ± 3.2	0.7 ± 2.5	0.48	<i>n.s.</i>		
	manageability	pre	16.1 ± 3.6	16.1 ± 4.2	16.2 ± 3.7				
		post	16.4 ± 3.1	16.4 ± 3.1	17.2 ± 4.2				
		Δ	0.3 ± 3.6	0.3 ± 3.5	1.0 ± 2.9	0.40	<i>n.s.</i>		

^a POMS: profiles of mood states, STAI: state-trait anxiety inventory, SOC: sense of coherence

Δ: variation (= post - pre)

** *p*<0.01, * *p*<0.05: pre vs post

† *p*<0.05: marine sports vs snow sports

History of Research at ICC Nairamdal, Mongolia

Author: Tulshig Tuvshin, Director General International Children's Center "Nairamdal",
President, Mongolian Camping Association

Thank you for opportunity to speak at the ICC Research Forums , I will talk about the History of Research at ICC Nairamdal, Mongolia.

- Brief introduction myself and overview of ICC Nairamdal.
- ICC Nairamdal was the first ICF member camp to be involved with research in 2008 during the 30th anniversary of our camp, *Contextual Learning in the Residential Camp Setting: ICC Nairamdal Mongolia*. This was an opportune time because the research surveyed both current campers and former campers and staff. The anniversary celebrations brought many alumni back to camp and so they were available for the survey. Marker events at camp such as reunions are therefore good times to conduct research. The research results identified aspects of Global Citizenship. ICC Nairamdal had been utilizing concepts on Global Child Development learned from the UNICEF conference in New York since 2000. Research paper was presented to the CEO through State University of New York, Cortland in 2010 and also at the American Camp Association Research Symposium and American Centre for Mongolian Studies, Chicago conference in 2009 .
- In 2011, ICC Nairamdal staff conducted research for the pilot study of the Global Citizenship Project . I will explain how we administrated the research at camp - translations, training staff, conducting surveys with campers, inputting data.
- In 2012, ICC Nairamdal conducted research for the current Global Citizenship Study using benchmark control group sessions and interventions sessions that utilized the global citizenship "toolbox" of interactive learning activities. I will explain how we administrated the research at camp - translations, training staff, conducting surveys with campers, inputting data
- Future plans for research at camps in Mongolia.

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