

The Canadian Summer Camp Research Project



Examining the outcomes
of the Canadian Summer
Camp experience

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Research Team

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Executive Summary

The Study

In its exploration of the benefits offered by participating in summer camp programs, the Canadian Summer Camp Research Project has progressed through two stages of investigation: direct interviews with camp directors and a survey instrument used to observe camper behaviours, attitudes, and values.

Direct interviews with Canadian camp directors revealed five themes in the outcomes they witnessed in their campers: (1) social integration and citizenship, (2) environmental awareness, (3) self-confidence and personal development, (4) emotional intelligence, and (5) attitudes towards physical activity.

These themes were then used to create a survey instrument in which camp counsellors observed and reported on their campers' behaviours, attitudes and values at both the beginning and end of a camp session, allowing the research team to examine any changes that may occur while at camp.

Our Findings

Analysis of these surveys indicates that positive development in all five areas appears to occur over the course of a camp session. Detailed analysis further revealed that camper gender, age and whether or not the individual had attended that camp previously influenced the impact of camp participation.

Analysis of the survey found that positive development appears to occur in all five areas over the course of a camp session.

On average, all groups experienced significant positive growth in all five areas but female campers, older campers and returning campers all tended to score

higher on the observation instrument, indicating greater development in the areas examined. Female and older campers also tended to experience more growth in most of the observed areas over the course of the camp session.

Significant relationships between the demographic variables and the outcomes demonstrated by the campers were found in certain areas:

- Male campers showed more positive attitudes towards physical activity and showed a greater increase in their attitudes by the end of the session
- The age of campers had no significant impact on the overall scores or the rates of change with regard to environmental awareness and attitudes towards emotional intelligence.
- New campers showed lower rates of social connections but appeared to experience a greater increase in their social integration scores by the end of camp. This finding suggests that new campers may **re** connections their first time at camp and **ret** returning campers potentially retain the connections made previously.

Perhaps one of the most significant overall findings of this study was that the higher average rates for returning campers in all areas seems to indicate that changes experienced at camp persist beyond that individual session.

Higher average rates for returning campers in all areas seems to indicate that changes experienced at camp persist beyond that individual session.

Having identified groups that seem to experience different outcomes of camp participation, follow-up research in this area could offer further insight into how or why these demographic variables seem to alter the impact of camp.

Further information about the study can be found at: <http://healthycommunities.uwaterloo.ca/camp/>

Introduction

“Research is paramount in establishing the credibility of summer camp.” - Peg Smith, Chief Executive Officer, American Camp Association.

For decades, Canadian camps have offered campers a wide range of experiences supporting positive growth and development. Those involved in these programs have witnessed the positive outcomes camp can offer individual campers. Until recently, however, there has been little to no empirical research into the impact of camp on general child development.

The Canadian Summer Camp Research Project (CSCRCP) was undertaken to help address this lack of research by exploring the outcomes of summer camp participation. This project has been a collaborative effort between the research team at the University of Waterloo and the Canadian Camping Association/Association des camps du Canada. This reports our findings.

In-depth interviews with 65 camp directors were conducted in 2007, and analysis of those interviews led to the identification of five desired outcomes of the summer camp experience: (1) social integration and citizenship, (2) environmental awareness, (3) self-confidence and personal development, (4) emotional intelligence, and (5) attitudes towards physical activity.

A survey instrument was subsequently developed to measure the degree of change campers experienced in these areas during the camp session.

Outcome logic models (*see inset*) were created to help camps tell the performance story of the summer camp experience to internal (e.g., staff) and external (e.g., prospective parents) audiences.

This report will focus primarily on the survey portion of the study, discussing key findings and their implication for the Canadian camping community.

Goals of the CSCRCP:

1. *To understand in what areas campers experience positive outcomes based on their camp experiences.*
2. *To measure the degree of developmental change in these areas experienced over the course of a camp experience.*

Outcome logic models follow an “if-then” process that links concrete program attributes to the broader outcomes we hope to see.

Creating the models: Using program attributes known to exist, a logical sequence of events is followed leading to different stages of possible outcomes for participants:

1. **Immediate outcomes:** what participants *learn*.
2. **Intermediate outcomes:** what participants *do* based on what they learn.
3. **Long-Term outcomes:** who participants *become* based on what they do.

These models allow us to draw connections between specific components of a program and the outcomes that could potentially be produced by that program thus offering an overview of the impact of different components and the program as a whole.

Within the CSCRCP: these models were utilized to explore the link(s) between summer camp programs and the outcomes described by the camp directors. These models also allowed the research team to construct a survey instrument to test for those outcomes on a larger scale.

For example:

If camp programming exposes campers to a variety of physical activities ... *then* campers will learn such activities can be enjoyable.

If campers are aware physical activity can be enjoyable ... *then* they will be more likely to be active in their everyday lives.

If they are more active in their everyday lives... *then* they will become healthier individuals.

Project Overview

In-Depth Interviews

Because of the lack of empirical evidence regarding Canadian summer camps upon which the current study could be based, an initial exploratory phase was necessary to orient the project and formulate a basic understanding of what issues or topics should be focused upon.

Camp directors, with their extensive experience in the camping industry and unique position for observing campers over time, often over the course of many years in the case of returning campers, were identified as a primary source for information regarding the outcomes of participating in a camp experience.

Methods

In 2007, interviews were conducted with sixty-five camp directors from across Canada. These interviews asked the directors what kinds of changes or outcomes they witnessed in their campers over the course of their career in the camping industry. More specifically, they were asked what new skills, knowledge, attitudes, and values they expected campers to develop through their experiences at camp. The directors were also asked to discuss any behavioural changes that may emerge from these initial outcomes.

Key interview findings

Analysis of these interviews revealed five key areas in which the directors expected campers to experience positive outcomes:

1. social integration and citizenship
2. environmental awareness
3. attitudes towards physical activity
4. emotional intelligence
5. self-confidence and personal development

These five themes were then used to construct five separate outcome logic models, tracking how

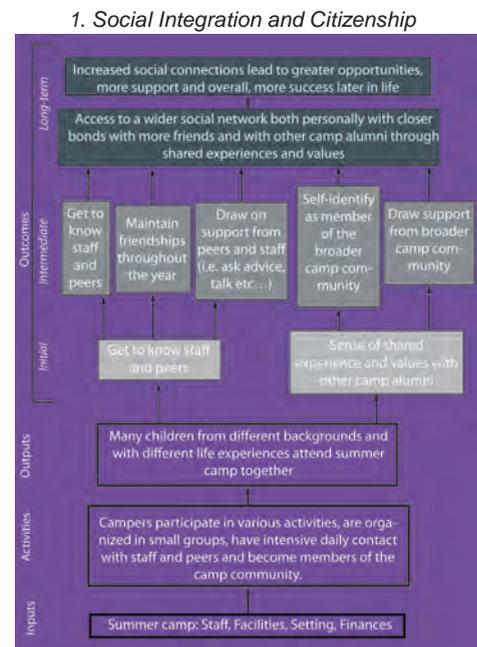
specific elements of the camp programs could lead to these types of outcomes.

Significance

By revealing what experts in the field see as key outcomes, the varied experience of all sixty-five directors thus presented a solid foundation for the larger project. While the directors' perspectives are based upon their own observations and experiences at camp, for the purposes of this study, broader research was needed to test the logic outcome models and determine whether or not there was significant statistical evidence to support what the directors have witnessed.

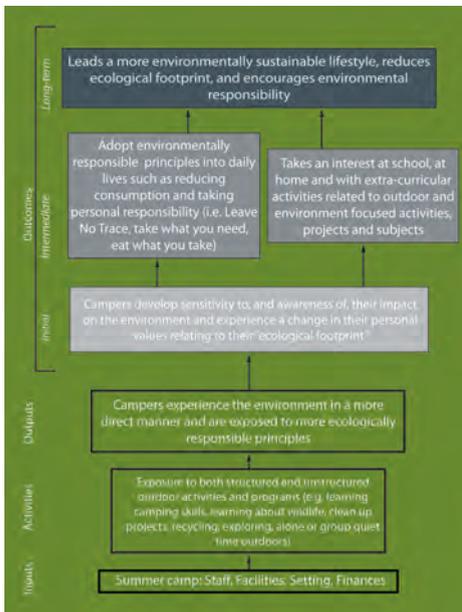
Outcome Logic Models

The following are the outcome logic models that were created based upon the findings of the interviews.

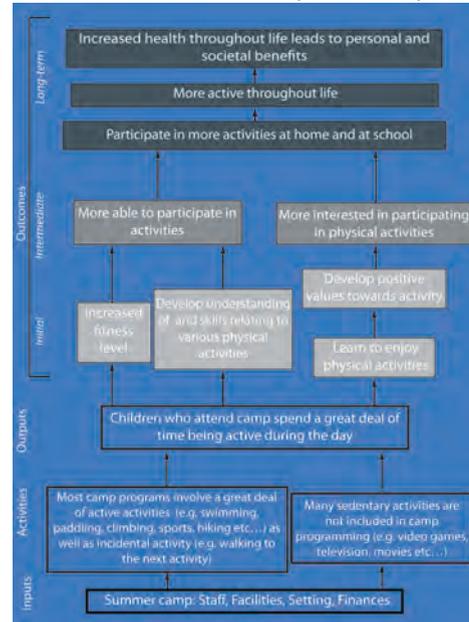


Project Overview *(continued)*

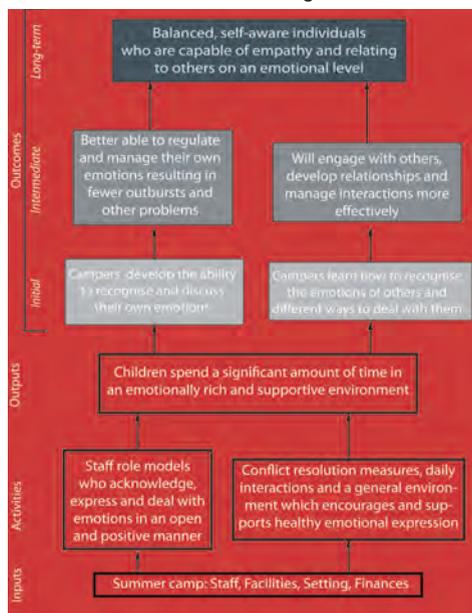
2. Environmental Awareness



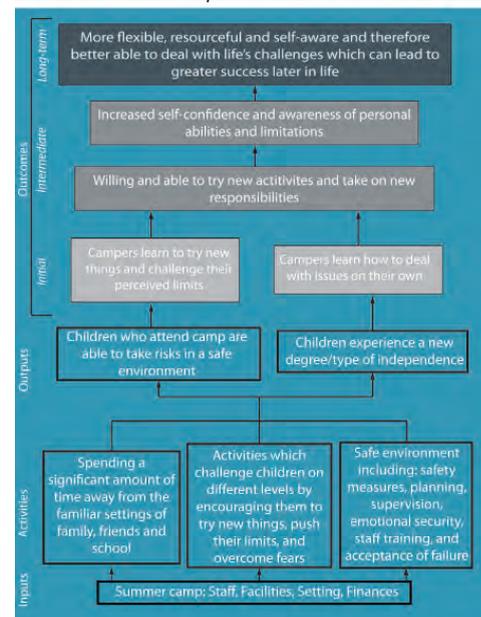
3. Attitudes Towards Physical Activity



4. Emotional Intelligence



5. Personal Development and Self-Confidence



Project Overview *(continued)*

Survey Research

A survey instrument was created to determine if change was occurring in each of the key outcome areas outlined above over the course of the camp experience. Whereas the first phase identified the areas to be examined, the second measured the degree of impact camp has on those areas in the *initial outcome stage* (what campers learned at camp).

With the foundation of the key themes in place, the survey instrument was created to measure campers' behaviour, attitudes and values regarding each area at the beginning and end of the camp session. This method allowed for a statistical measurement of the degree of change experienced in each of the areas over the course of the camp experience. The survey was pilot tested at a small number of camps to ensure its statistical and substantial validity and reliability.

Once the pilot study was completed and the survey was finalized, the study materials were sent to camps across the country to measure the changes experienced by their campers over the course of the camp session.

Basic demographic information was collected about each camper (e.g., age, gender), as well more specific information such as how many times the camper had been to camp previously and during what kind of camp program the observations were made (e.g., day/residential, specialty camps, urban/rural settings).

Methods

Staff members observed their campers for the first 48 hours/two full days of camp and then completed the survey noting how campers behaved and what they demonstrated regarding their

abilities, attitudes and values in each of the five areas. The questions offered statements regarding the various facets of the main themes and asked staff to what degree they agree/disagree with that statement regarding the individual camper using a numbered scale. Each item was scored such that a higher number indicated a stronger agreement with the statements regarding their observations of the camper (1= very strongly disagree, 7= very strongly agree).

The same survey was then revisited at the end of the camp session and the staff members answered the same questions regarding each camper, based on their observation of the last two days at camp, thus revealing any change that may have happened over the course of the session.

During analysis, these items were coded so that higher scores reflect the demonstration of higher levels of positive development in those areas (e.g., a score of 5.5 shows a camper demonstrates more environmentally aware attitudes/behaviours/values than score of 3).

Who answered the survey?

Members of the Canadian Camping Association/ Association des camps du Canada were invited to participate in the survey; those who volunteered were sent the study materials via email. This package included the survey instrument, a complete set of instructions for conducting the study, and information letters to be presented to those participating in the study (e.g., staff members and campers/their parents). Each camp selected as many camper groups to participate as it felt represented its program.

The data from these surveys were entered and analyzed by the research team at the University of Waterloo.

Project Overview *(continued)*

Demographics*

Camps:

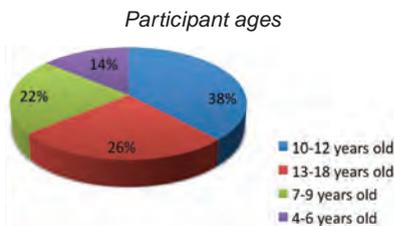
- A total of sixteen camps from across Canada participated in the survey.
- The majority of the camps identified themselves as co-ed programs with one male-only camp and two female-only camps participating.
- Nine of the participating camps were residential programs while the other seven identified themselves as day camps.

- The participating camps accepted campers between three and eighteen years old in their programs.

Campers:

- 1,288 campers were observed in total.

- The ages of the participants ranged between three and eighteen years old but the majority of participants (77%) were between seven and fourteen years old.



- The gender of participants was evenly split (49% F, 51% M).

- Of the total participant population, 59% were returning campers, 38% were new to the program in which they were observed.

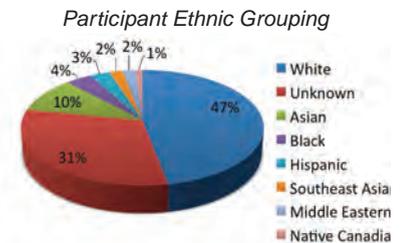
- The majority of campers observed attended day camp (68%) but there were enough campers in residential programs (32%) to constitute a statistically viable group.

*Totals may not reach 100% because some questions were left unanswered on a small number of surveys

- 52% of the campers attended wilderness based camps while 48% attended camps located in urban settings.

- Campers identified as having special needs made up a small population of the overall sample (<10%).

- The largest ethnic group identified in the camper population was white but other groups were also identified: Asian, black, Hispanic, Southeast Asian, Middle Eastern, and Native Canadian. A portion of the campers' ethnicity was reported as "unknown" by the counsellors.



Key survey findings

Analysis of each of the major theme areas indicated a statistically significant increase in the average scores of the campers across all five domains. More specifically, over the course of a camp session the campers in the study on average showed significant positive development with regard to: social integration and citizenship, environmental awareness, attitudes towards physical activity, emotional intelligence, personal development and self-confidence.

Gender, age of camper, and previous camp experience were found to impact the degree of change experienced by the camper's in different areas.

The findings in each of these areas and their implications will be discussed in more detail below.

[See appendix for more statistical details]

Survey Research Findings

Overall Findings

Analysis of the overall average scores for campers has revealed that, yes, on average, the campers exhibited significant positive change in each of the five areas examined while at camp. Essentially, by comparing the behaviours exhibited at the beginning of camp and those observed at the end, it would appear that, on average, the counsellors noted more positive behaviours, attitudes and values being demonstrated in each of the five areas at the end of the session.

Breaking down the results in more detailed examination, however, has revealed some specific details that offer us further insight into how camp can impact children's development.

Looking at several different groups within the camper population has indicated that certain

demographic characteristics can be linked to different results. Comparing the scores at time one (beginning of camp) and time two (end of camp) showed that gender, age, and whether or not an individual camper has attended that camp before can have a significant impact on campers' scores. More complex analysis was then conducted to determine if these groups simply showed higher scores on average or if camp seemed to have a different degree of impact on them.



Essentially, by looking at how much the scores for each group changed over the session, we were able to determine if camp had a greater impact on one group over another, regardless of their overall scores (e.g. you can start and end with a lower score, but if you showed significantly more change over time, it could be argued that camp had more of an impact on you).

Table 1. Overall findings of survey

	Average score T ₁ *	Average score T ₂ **	Percentage of camper population reporting positive growth
Social Connections and Integration:			65%
<i>Social Integration</i>	4.5	5.0	
<i>Citizenship</i>	4.8	5.1	
Environmental Awareness	4.4	4.6	52%
Attitudes Towards Physical Activity	4.9	5.2	61%
Emotional Intelligence	4.5	4.8	69%
Personal development and Self-Confidence	4.9	5.2	67%

* T₁ denotes the first recording time at the start of camp
 **T₂ denotes the second recording time at the end of camp

Survey Research Findings:

Social Integration and Citizenship

Q: Social skills, fast friends, belonging and support: does camp help children build stronger social networks?

Discussing the benefits and outcomes of camp, the directors in Phase I spoke extensively of the friendships and social connections made at camp, as well as the sense of belonging, social skills and social support networks developed at camp.

This section of the observation survey included questions such as: “The camper befriends other campers different from him/herself”; “This camper exhibits a sense of pride about being a member of his/her camp”; and “This camper resolves personal conflicts in a positive manner”.

A: Yes, our study indicates that while at camp children learn and grow with regard to social connections.

The questions focusing on social connections, belonging and networks showed significant growth over the course of the camp experience. Looking at the collective group of campers, over 65% of the children in the study showed positive change in this area, indicating a statistically significant growth over the time period studied. For the purposes of analysis, this overarching topic area was split into two categories: citizenship and social integration, both of which increased, on average, over the course of the camp session.



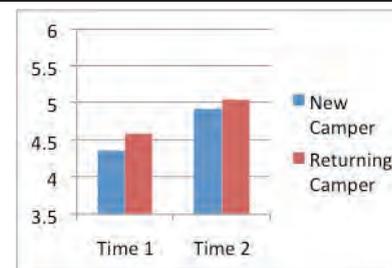
More specifically:

- **Gender:** female campers started and finished the session with higher scores in both sub-categories, and they showed a significantly greater increase in their scores in social integration.

- **Age:** the oldest campers (13-18 years old) showed the highest levels of development in this area and showed the greatest increase in their scores for both sub-categories.

- **New/returning campers:** returning campers started out and ended with higher scores, on average in the broader area of social connections. New campers, however, showed the greatest degree of improvement in the subcategory of social integration.

Social Integration: new/returning campers



What does this mean for my camp?

- Male campers may require more support to maximize the potential impact of camp in these socially-based outcomes.

- Older campers may show greater development, but developmental limitations may have skewed the findings in that younger campers may not be ready for certain social skills and abilities. Appropriate support and expectations at each stage of development are necessary for each camper to reap the full benefits of the camp experience.

- New campers may not score as highly as the returning children, but their rate of development in social integration supports the camp directors' assertion that camp offers a distinct environment for social development and indicates that the first camp experience tends to have the greatest degree

Survey Research Findings: Environmental Awareness

of impact in this area of development. Looking at questions regarding the number of friends a camper has and whether or not they seem to feel like they belong at camp, it is logical that first-time campers experience greater increases as returning campers will, presumably, already have friends and/or feel a part of the group.

Q: Can camp change how campers relate to the environment and their impact upon it?

Personal responsibility and the recognition of the impact of one's actions upon the environment were discussed at length in the interviews with the directors. The camp directors explained that camp changes how campers see their own actions while also teaching them how to live more environmentally conscious lives. Time spent out of doors in direct contact with nature was also cited as a source for changing how campers view their relationship with the environment; the directors explained that familiarity with, and appreciation of, nature promotes environmentally friendly habits and values.



This section of the observation survey included questions such as: “This camper shows an awareness of his/her impact on the environment”; “This camper thinks we should all take care of the planet”; “This camper enjoys being in the outdoors”.

A: Yes, camp can help teach and promote environmentally friendly lifestyles.

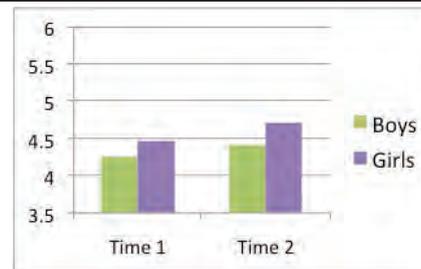
Examination of the data focusing on environmental awareness and environmentally friendly behaviour has revealed that 52% of the campers in the study showed positive change in this area. While that number might seem small, it was found to be

statistically significant, indicating that it is safe to say campers do tend to learn about how to protect the environment and develop environmentally friendly attitudes and behaviours while at camp.

More specifically:

- *Gender*: female campers showed higher levels of environmental awareness as well as showing a higher rate of improvement by the time they left camp.

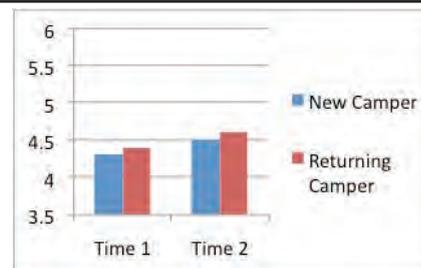
Environmental Awareness: Gender



- *Age*: the oldest campers (13-18 years old) showed the highest rates and most change, but all three other age categories (4-6, 7-9, 10-13) showed very similar rates both at the beginning and the end of camp and the difference between the rate of change for all four groups was not found to be statistically significant.

- *New/returning campers*: the returning campers again showed higher rates at the beginning and end of camp but the degree of change for both groups was roughly the same.

Environmental Awareness: New/Returning Campers



Survey Research Findings:

Attitudes Towards Physical Activity

What does this mean for my camp?

- While statistically significant, this area did have a lower percentage of positive growth, indicating that perhaps it is an area that could use more specific attention if camps do want environmental awareness and adoption of eco-friendly practices to be an outcome of their program.
- The fact that the girls once again started with higher rates and showed more development suggests that environmental programming and support at camp may not be as appealing to the male campers. Altering approaches, and/or incorporating environmental themes into more male-favoured program elements may help increase the boys' scores in this area.
- The returning/new campers' scores indicate that perhaps what was learned previously at camp is retained, but that the program impacts upon both groups to the same degree.

Q: Physical activity is important. Does camp help promote and encourage active lifestyles?

In today's climate of concern over obesity and inactive lifestyles, the directors described camp as a place where children enjoy being physically active. Camp not only offers a wide range of different activities, helping campers discover new interests and pursuits, but also exposes campers to a high degree of activity, helping to foster a healthy lifestyle that includes daily physical activity.

This section of the observation survey included questions such as: "This camper has a positive attitude toward physical activity"; "This camper is physically active"; "When given a choice this camper always chooses physical activities".

A: Camp improves campers' attitudes towards physical activity.

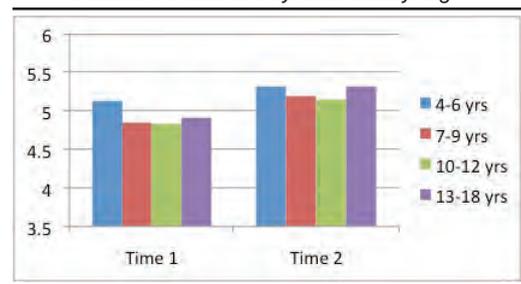
61% of the campers in the study showed improved attitudes towards physical activity by the end of their camp session. Amid growing concerns regarding sedentary lifestyles and childhood obesity, this result is indeed significant. If campers can increase their activities levels and develop more positive attitudes toward physical activities, it is hoped that camp can contribute to more active lifestyles overall.



More specifically:

- **Gender:** male campers showed higher rates at the beginning and end of camp, but gender did not appear to make a difference in how much camp impacted upon camper attitudes towards physical activity.
- **Age:** the youngest campers (4-7 years old) showed the most positive attitudes, but the older the campers got, the more change they experienced over the course of their time at camp.

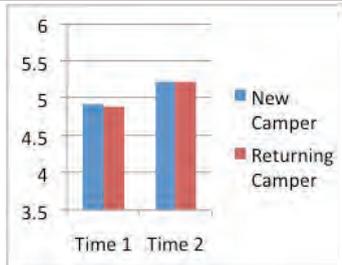
Attitudes Towards Physical Activity: Age



- **New/returning campers:** both groups showed nearly identical average scores both at the beginning and end of camp, with significant improvement regarding attitudes towards physical activity.

Survey Research Findings: *Emotional Intelligence*

Attitudes Towards Physical Activity: New/Returning Campers



What does this mean for my camp?

- The starting points for each gender would, perhaps, not be surprising in our society. The degree of change, however, is interesting as it shows that boys did not experience more change in this area. Camp appears to improve attitudes towards physical activity regardless of gender.
- Younger campers showed more positive attitudes, but less change, perhaps because their starting point was significantly higher to begin with. The marked increase in the impact of camp on attitudes toward physical activity as the campers got older, however, is significant. This difference suggests that, while most young children tend to be naturally active, it would appear that camp supports physically active choices long after campers have matured beyond the early running, jumping and chasing stage.
- The similar scores for new and returning campers indicate that, the improvement to attitudes experienced at camp may not extend beyond the end of the program, or at least not until the following year. There are many possible reasons for this loss of the positive change made at camp such as access to different activities, different environments and supports, or simply other priorities, but further research is required to understand exactly what is happening here.



Q: Can camp help children identify and positively deal with their own emotions and the emotions of others?

The development of emotional intelligence, the ability to recognise and deal with one's own emotions and the emotions of those around you at an age appropriate level, is an essential component of the maturation process. The camp directors identified that camp is a safe setting where children can express themselves and learn how to cope with different emotions. Thus, the social interaction, independence and supportive environment at camp was explained to help children develop their emotional intelligence 

This section of the observation survey included questions such as: "This camper displays an awareness of his/her emotions as he/she experiences them"; "This camper is sensitive to the feelings and emotions of others"; "This camper is aware of the non-verbal messages he/she sends to others"; "This camper has control over his/her emotions"; "This camper helps others feel better when they are down".

A: Yes, experiences at camp can help children further develop their emotional intelligence.

The highest rate of positive growth in the study was found in the area of emotional intelligence: 69% of participating campers experienced positive development in this area. Interestingly, this area of development is somewhat more complicated and, one would presume, wouldn't be as easily fostered in the shorter time frame of the camp session. Regardless of the complex nature of this area of growth, however, it would appear that campers do

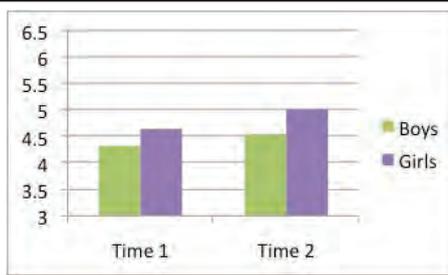
Survey Research Findings: Personal Development and Self-Confidence

tend to experience significant positive development over the course of their camp experiences.

More specifically:

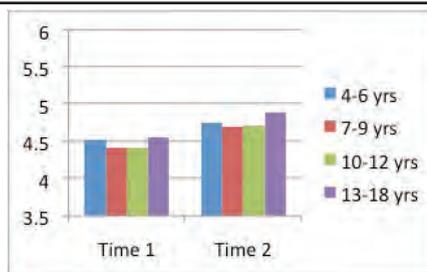
- **Gender:** perhaps not surprisingly in our society, female campers showed both higher rates and a slightly greater change in their emotional intelligence over the course of the camp experience.

Emotional Intelligence: Gender



- **Age:** the average starting scores for all the age groups were relatively similar, but the slightly higher rates of the older campers were found to be statistically significant. All four groups showed similar rates of improvement by the end of the session.

Emotional Intelligence: Age



- **New/returning campers:** both groups started with similar scores and showed similar rates of change over time.

What does this mean for my camp?

- Emotional intelligence is an area still deemed more appropriate for females in our society, so it is

perhaps not surprising that female campers exhibit higher rates and higher rates of change. What is interesting, is that the male campers also showed significant increases in their scores. It would therefore appear that camp creates an environment in which children of both genders are able to grow emotionally.

- While the average overall scores for the different age groups were significantly different, the rates at which they experienced change over the camp session were not. These results would appear to indicate that the impact of camp on emotional intelligence does not change as the children mature.

- As with the different age groups, it would appear that new and returning campers experience the same degree of change in this area over the course of the camp session but that returning campers, on average, report higher scores in both reporting periods.

Q: Is camp a place where children experience growth in terms of personal development and self-confidence?

Extended experiences in a setting away from the familiar atmosphere of their family and school environments offers campers a unique opportunity to develop independence, life skills and self-confidence. In their interviews, the directors spoke at length about the skills children develop at camp and how this skill development leads to greater independence and self-confidence. Working outside their comfort zones but within a safe and supportive environment allows children to take risks and test their own abilities without risking serious physical or emotional harm while at camp.



Survey Research Findings: Personal Development and Self-Confidence

This section of the observation survey included questions such as: “This camper needs help with most things he/she does”; “This camper has an accurate understanding of his/her personal limits”; “This camper appears to do fine without his/her parents”; “This camper likes to try new things”.

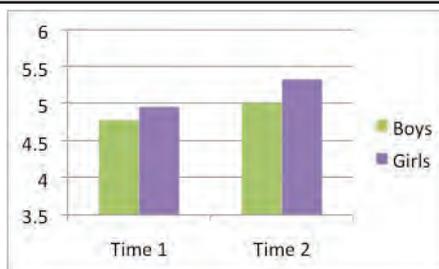
A: Yes, camp fosters independence and self-confidence.

Increasing ability to do things on one’s own, understanding of one’s abilities and limitations, and the confidence to take on challenges are all part of the healthy maturation process. Following emotional intelligence at a close second, self-confidence and personal development showed a rate of 67% of all campers experiencing positive growth. What this study indicates, therefore, is that experiences at camp can foster distinct change in this vital area over a relatively short time frame.

More specifically:

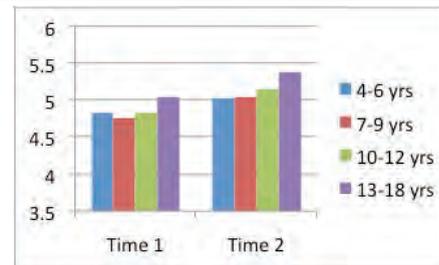
- **Gender:** to begin, both gender groups showed somewhat similar average scores in this area. The female group, however, showed a significantly greater increase in their average score than the males.

Personal Development and Self-Confidence: Gender



- **Age:** the three younger groups showed similar scores to begin with while the oldest group showed a significantly higher starting point. Over time, the rates of change increased with each increase in the age of the group being measured.

Personal Development and Self-Confidence: Age



- **New/returning campers:** both groups showed relatively similar scores and rates of change but the difference between the overall scores of returning and new campers was found to be significant. The rates of change, however, were not found to be statistically significant

What does this mean for my camp?

- The different rate of development for the two genders is a complicated factor. Further research in this area could help us understand where the difference in impact lies but regardless, it is important to note that both genders experience significant growth in this area at camp.
- The higher scores and rates of change for older campers matches what one would presume as campers mature and are more and more able to take on new tasks, face challenges and deal with things on their own. The fact that all age groups do show growth, however, indicates that camp helps all campers foster these abilities and traits.
- The significantly higher overall scores of the returning campers and the similar rates of change suggests that campers retain some of the self-confidence and personal growth from year to year and that the impact of camp on this area of development does not wane with repeated experiences; camp still challenges returning campers and encourages them to grow in this area.

Conclusions and Recommendations

Based on the findings of this study, it would appear that participation in provincially accredited camps promotes positive change in five key areas of development: social integration and citizenship, environmental awareness, attitudes towards physical activity, emotional intelligence, and self-confidence and personal development.

In each of these areas, the participating campers were found to experience significant positive changes in their behaviour, attitudes and values resulting in overall positive change in interpersonal and personal development.

The camp experience did not, however, impact every camper in the same way or to the same extent. The analyses revealed that specific subgroups of campers showed more change in some areas of development, which may have implications for programming as well as future research.

While female and male campers both exhibited growth in the five areas of development, female campers experienced greater changes in four of the five areas – social integration and citizenship, environmental awareness, emotional intelligence, and self-confidence and personal development. Male campers were found to show more positive change in the fifth area, attitudes toward physical activity.

Given what we know about societal gender expectations that encourage females to demonstrate more caring behaviour and greater interpersonal skills and expertise, and males to be more oriented to the development of physical skills and physical competence, these findings are not a complete surprise. However, if it is the wish that camp programs to foster similar levels of growth in all areas among both female and male campers, camp

directors and staff may wish to consider modifying or developing some camp programs so they are tailored or adjusted specifically for females and males to promote similar levels of positive outcomes. Also, further research into these gender differences in camp outcomes could potentially provide insights to help camp directors and staff develop of such gender-specific programs.

Another difference in the impact of the camp experience on campers was based on age. Overall, the findings indicate that older campers tend to experience greater levels of change in all five areas of development.

It may be that older children demonstrate greater change over the relatively short time they are involved in a camp program because with greater maturity and social experience they are able to adapt to new situations with greater ease. However, as with the gender differences, it is important to note that all four age groups examined were found to experience significant change over the course of the camp experience in all five developmental areas. Consequently, if any program innovations are considered it may only be a matter of minor adjustments.

When comparing the outcomes of new and returning campers, first time campers tended to experience greater positive change in the domain of social integration. This difference is not unexpected. Making friends, developing feelings of belonging and pride, etc. at camp is something completely new for first time campers. Consequently, they have much more potential or room for this type of growth and development.

Of particular importance, however, when comparing



Conclusions and Recommendations

(continued)

the developmental outcomes experienced by new campers and returning campers is the lack of significant differences. In almost all the areas of development examined in this study, both groups of campers experienced the same amount of change during the camp experience. Children continue to experience positive outcomes when they return to camp, and camp participation appears to foster ongoing development. In other words, the children in this study did not reach a plateau where development stopped even after



The findings of this study may also provide camp directors and programming staff with insights that they may find useful as they consider programming innovations and developments. Further research that seeks to explore differences among campers' experience and outcomes in more depth, and similar studies focusing on other areas of camper development and exploring other groups of campers may offer more insight into an overall understanding of the impact of the camp experience. However, the findings of this study have created a clear picture of important developmental outcomes that the camp experience can provide.

multiple experiences at camp. It would appear that camp continues to offer challenges and supportive experiences that encourage development each time a child attends.



The overall higher scores of returning campers would also seem to suggest that the impact of camp carries over from one year to the next, with attitudes towards physical activity being the single exception.

This second phase of the Canadian Summer Camp Project provides good evidence that positive development occurs as a result of participating in the camp experience. 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, age and camp experience, the clearest finding of all was that all campers regardless of these differences experienced positive outcomes and growth. These findings support the observations provided by the camp directors in phase one of this study.

Method

During the summer of 2010, camp counsellors at seventeen provincially accredited camps across Canada observed and documented in a survey their campers' behaviours, values, and attitudes at the start and end of camp. Components of the survey were drawn from previous summer camp studies (ACA, 2005a, b) with additional questions developed by the researchers or drawn from existing standardized scales. The survey was pilot tested in the summer of 2009.

In 2010, data were collected from 1,295 camp participants. About half (49%) were female. The mean age was 10.54 (SD = 4.79), and 61% were returning campers. Age group frequencies were as follows: 4-6yrs = 14%; 7-9yrs = 22%; 10-12yrs = 37%; 13-18yrs = 27%.

The good citizen scale was the mean of 6 questions relating to contribution to the group, getting along with others and sense of pride in membership of camp community ($\alpha = .88$). The social integration scale was the mean of 4 items regarding making friends at camp and the support a camper receives from others ($\alpha = .82$). The personal development measure was the mean for ratings on 8 questions measuring the camper's confidence, capability and self-awareness ($\alpha = .87$). The environmental awareness measure was the mean of 5 questions measuring the camper's awareness of his or her impact on the environment and environmentally friendly behaviour ($\alpha = .89$). Emotional intelligence was assessed with the mean of ratings on 10 items related to a camper's awareness of his or her emotions, others' emotions, and tactful interpersonal interaction (Schutte et al., 1998; $\alpha = .89$). Finally, physical activity attitudes were assessed with the mean of ratings of 7 items related to the degree that the camper has positive attitudes toward physical activity, sports, and games ($\alpha = .94$). Items for all measures were rated on a continuous scale from 1 = very strongly disagree to 7 = very strongly agree and recoded

when necessary so that greater values indicated greater endorsement of that construct.

Analysis procedures: Repeated measures 2-way analyses of variance (ANOVAs) were conducted to examine the change in camp counsellors' ratings of campers' interpersonal and personal development from time 1 (T1) to time 2 (T2), and the associations of gender, age group, and returning camper status with each of these measures of interpersonal and personal development.

Results

Change in Interpersonal and Personal Development: For all ANOVAs there was a statistically significant increase over time for each of the six outcome variables (e.g., Good Citizen: T1 M = 4.83; T2 M = 5.16; Social Integration: T1 M = 4.50; T2 M = 5.00; Personal Development: T1 M = 4.88; T2 M = 5.18; Environmental Awareness: T1 M = 4.37; T2 M = 4.57; Emotional Intelligence: T1 M = 4.48; T2 M = 4.77; Physical Activity Attitudes: T1 M = 4.90; T2 M = 5.23).

Differences by Gender: There was a significant main effect of gender for all six outcome variables, with girls showing higher mean scores for good citizen (Girls, M = 5.20, Boys, M = 4.79), social integration (Girls, M = 4.94, Boys, M = 4.57), personal development (Girls, M = 5.15; Boys, M = 4.90), environmental awareness (Girls, M = 4.60, Boys, M = 4.34), and emotional intelligence (Girls, M = 4.83, Boys, M = 4.42), but boys showing higher mean scores for physical activity attitudes (Girls, M = 4.99, Boys, M = 5.14). Girls also showed greater increases over time for four of these outcomes with Time by Gender interactions that were statistically significant for social integration ($F(1, 1196) = 14.32, p < .001$), personal development ($F(1, 1196) = 13.94, p < .001$), environmental awareness ($F(1, 1196) = 5.59, p < .05$), and emotional intelligence ($F(1, 1196) = 23.56, p < .001$).

Differences by Age Group: There was also a main

Appendix *(continued)*

effect for age groups with each of the six outcome variables. These results tended to be driven by higher values for the oldest age group compared to the younger age groups with the exception that the mean for physical activity attitudes was highest for the 4-6 year age group. To be specific, means for good citizen by age group were: 4-6 years old, $M = 5.00$; 7-9 years old, $M = 4.91$; 10-12 years old, $M = 4.93$; 13-18 years old, $M = 5.13$. Means for social integration by age group were: 4-6 years old, $M = 4.67$; 7-9 years old, $M = 4.64$; 10-12 years old, $M = 4.71$; 13-18 years old, $M = 4.93$. Means for personal development by age group were: 4-6 years old, $M = 4.93$; 7-9 years old, $M = 4.90$; 10-12 years old, $M = 4.99$; 13-18 years old, $M = 5.21$. Means for environmental awareness by age group were: 4-6 years old, $M = 4.45$; 7-9 years old, $M = 4.40$; 10-12 years old, $M = 4.42$; 13-18 years old, $M = 4.60$. Means for emotional intelligence by age group were: 4-6 years old, $M = 4.64$; 7-9 years old, $M = 4.56$; 10-12 years old, $M = 4.57$; 13-18 years old, $M = 4.73$. Means for physical activity attitudes by age group were: 4-6 years old, $M = 5.23$; 7-9 years old, $M = 5.03$; 10-12 years old, $M = 5.00$; 13-18 years old, $M = 5.12$. The statistically significant Time by Age Group interactions for good citizen, social integration, personal development, and physical activity attitudes further revealed that the oldest age group tended to experience the greatest increases in their scores in all four outcome variables by the end of their time at camp compared to the younger age groups. The Time by Age Group interactions were not statistically significant for environmental awareness or emotional intelligence.

Differences by Returning Camper Status: Campers who had returned to a camp they had previously attended had significantly higher means on all of the outcome variables except for physical activity attitudes, which did not differ significantly by returning camper status (Good Citizen: Returning camper, $M = 5.06$; New camper, $M = 4.89$; Social Integration: Returning camper, $M = 4.83$; New camper, $M = 4.63$; Personal Development: Returning camper, $M = 5.08$; New camper, $M =$

4.93; Environmental Awareness: Returning camper, $M = 4.51$; New camper, $M = 4.41$; Emotional Intelligence: Returning camper, $M = 4.66$; New camper, $M = 4.57$; Physical Activity Attitudes: Returning camper, $M = 5.06$; New camper, $M = 5.08$). The Time by Returning Camper interaction was only significant for social integration ($F(1, 1164) = 5.14, p < .05$), interestingly, with new campers showing slightly greater increases in social integration over time (Returning Camper, T1 $M = 4.60$, T2 $M = 5.06$; New Camper, T1 $M = 4.36$, T2 $M = 4.92$). This significant interaction suggests that although returning campers begin with a higher level of social integration, it is the new campers that experience the larger gain in social integration during their time at camp.

References

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