

Briefing Letter

**OUTCOMES OF THE SUMMER CAMP EXPERIENCE FOR YOUTH-AT-RISK  
AT CAMP TIPPY CANOE, NB**

by

Thomas Carney

Department of Kinesiology, University of New Brunswick

There is increasing research relating to summer camp experiences and the positive outcomes camp can offer for youth, however there has been little research into the impact of camp on general youth development in the Canadian context and even less examination of camp experiences in relation to youth-at-risk. As this group has the potential to gain much from the camp experience this project aimed to contribute to understanding in this area through a study of youth-at-risk attending Camp Tippy Canoe in New Brunswick. Specifically, the main purpose was to explore the personal benefits youth-at-risk gain from attending an outdoor summer camp program and to compare the results to the findings of a general focus study of summer camps in Canada.

Data was collected during the summer of 2014 and it was modeled on the Canadian Summer Camp Research Project undertaken in 2011 through the University of Waterloo. In the current study, a total of 102 young people ranging from 10-17 years of age were observed by camp staff. Data collection was guided by a set series of questions adapted from the Canadian Summer Camp Research Project, at two intervals (48 hours after the start of camp and at the end of camp).

Once the data was collected an analysis was conducted to examine the change in camp staffs' rating of campers' interpersonal and personal development after the first 48 hours (T1) and at the end of camp (T2). The relations of gender, age group, and returning camper status with the ratings of campers' interpersonal and personal development was also examined.

The findings suggests that the youth-at-risk who attended Camp Tippy Canoe developed a positive identity, social skills, physical skills, environmental awareness and positive values through a structured outdoor camp experience designed to challenge and engage them in their environment. The results showed a significant increase ( $p=.000$ ) in the five key areas (social integration, environmental awareness, emotional intelligence, attitudes towards physical activity) from T1 (after 48 hours) and T2 (end of camp). Further analyses revealed that certain subgroups of campers showed more change in specific areas of development. There was no difference found between the two genders in any of the five key areas. In terms of returning camper status, a difference was only found in social connections and integrations with new campers showing the highest score. Finally, the findings found two significant differences between the age groups for environmental awareness and emotional intelligence with the oldest group scoring the highest.

These results resonate the importance of investing in outdoor summer camp programs that are specifically designed for youth-at-risk and that will allow those who may be disempowered by their environmental circumstances a chance to benefit from summer programs.

**OUTCOMES OF THE SUMMER CAMP EXPERIENCE FOR YOUTH-AT-RISK**

**AT CAMP TIPPY CANOE, NB**

by

Thomas Carney

BA Hons Sport Development and Physical Education, Liverpool John Moores  
University, UK, 2010

Report Submitted in Partial Fulfillment  
of the Requirements for the Degree of

**MA Sports and Recreational Studies**

in the Graduate Academic Unit of Kinesiology

Supervisor: Cynthia Stacey, PhD, Faculty of Kinesiology and Dean  
of Renaissance College

Examining Board: Charlene Shannon, PhD, Faculty of Kinesiology, Chair  
Lynn Randall, PhD, Faculty of Education  
Fred Mason, PhD, Faculty of Kinesiology

This report is accepted by the  
Dean of Graduate Studies

THE UNIVERSITY OF NEW BRUNSWICK

May, 2015

©Thomas Carney (2015)

## **Abstract**

Summer camps provide youth with opportunities to foster social, emotional, physical, and interpersonal development by offering novel, challenging, and engaging experiences that effectively open the learning pathways (Merryman, Mezei, Bush, & Weinstein, 2012). Researchers have only recently started to gather empirical information on the impact of the summer camp experience for youth-at-risk and as such the literature available on the subject is scant. This research aimed to contribute to understanding in this area through a study of youth-at-risk attending Camp Tippy Canoe in New Brunswick. Specifically, the purpose of the study was to explore the personal benefits youth-at-risk gain from attending an outdoor summer camp program and to compare the results to the findings of a general focus study of summer camps in Canada. This study was conducted during the summer of 2014 and it was modeled on the Canadian Summer Camp Research Project undertaken in 2011 through the University of Waterloo. In the current study, a total of 102 young people ranging from 10-17 years of age were observed by camp staff. Data collection was guided by a set series of questions adapted from the Canadian Summer Camp Research Project, at two intervals (48 hours after the start of camp and at the end of camp). The findings from this study showed youth who attended Camp Tippy Canoe displayed positive change in five key areas of development: social connections and integration, environmental awareness, self-confidence and personal development, emotional intelligence, and attitudes towards physical activity. Further analyses revealed that certain subgroups of campers showed more change in specific areas of development.

## **Acknowledgments**

I would like to start by expressing my extreme gratitude to Dr. Cynthia Stacey for all her support and encouragement during my research study. Her continued help and motivation has helped me succeed in completing this study and it has been a great pleasure working with you.

Second, I would like to thank Dr. Jonathon Edwards, Dr. Lynn Randall, and Dr. Fred Mason for their help and support.

I would like to thank my fiancée Hannah for everything you have done to help me complete my project. You have helped in pushing me to succeed and your support has truly been fantastic and I am very grateful! I will promise to never ask you to read through it again now that it is complete.

I would like to thank my parents for their continued support throughout the whole process. I am very thankful for everything you have done.

Finally, I would like to thank Partners For Youth for their support and participation in the study.

## Table of Contents

|   |     |
|---|-----|
| Abstract .....  | ii  |
| Acknowledgments .....   | iii |
| Table of Contents .....                                       | iv  |
| List of Tables .....  | vi  |
| Chapter 1 Introduction .....                                  | 1   |
| Chapter 2 Literature Review .....                             | 6   |
| Summer camp outcomes .....                                    | 6   |
| Summer camp for youth-at-risk .....                           | 10  |
| Youth development assessment .....                            | 12  |
| Summary .....   | 16  |
| Chapter 3 Methodology.....                                    | 17  |
| Research approach.....  | 17  |
| Study participants .....                                      | 18  |
| Instrumentation.....  | 19  |
| Data collection.....  | 20  |
| Method of analysis .....                                      | 21  |
| Study comparisons .....                                       | 21  |
| Chapter 4 Results .....                                       | 23  |
| Camp context.....   | 23  |
| Response rate.....  | 24  |
| Change in interpersonal and personal development.....         | 24  |
| Difference by gender .....                                    | 24  |
| Difference by returning camper status .....                   | 26  |
| Difference by age .....                                       | 28  |
| Summary .....   | 30  |
| Chapter 5 Discussion.....                                     | 31  |
| Social connections and integration.....                       | 31  |
| Environmental awareness.....                                  | 33  |
| Self-confidence and personal development.....                 | 33  |
| Emotional intelligence.....                                   | 34  |
| Physical activity attitudes.....                              | 35  |
| Comparison to the Canadian Summer Camp Research Project ..... | 35  |
| Gender .....  | 36  |
| Returning camper status .....                                 | 37  |
| Age .....   | 37  |
| Chapter 6 Conclusions and Recommendations .....               | 39  |

|   |    |
|---|----|
| Limitations .....                               | 40 |
| Future studies .....                            | 41 |
| Recommendations .....                           | 41 |
| Bibliography .....                              | 43 |
| Appendix 1- Observational Survey .....          | 52 |
| Appendix 2- Camp Staff Form .....               | 63 |
| Appendix 3- Mean score tables for results ..... | 64 |
| Curriculum Vitae                                |    |

## List of Tables

|   |    |
|---|----|
| Table 1 Paired t -Test: Comparison interpersonal and personal development from T1 to T2   | 25 |
| Table 2 Oneway ANOVA: Gender effect comparisons between T1 and T2 measurements  | 26 |
| Table 3 Oneway ANOVA: Returning camper status effect comparisons between T1 and T2 Measurements.....                            | 27 |
| Table 4 Returning camper status difference in scores between T1 and T2.....   | 28 |
| Table 5 Oneway ANOVA: Age frequencies comparisons between T1 and T2.....  | 29 |
| Table 6 Significant differences between age frequencies for environmental scores .....  | 30 |
| Table 7 Significant differences between age frequencies for emotional intelligence scores                                       | 30 |
| Table 8 Comparison of the average scores for Canadian Summer Camp Research Project and the average results for this study ..... | 36 |
| Table 9 Age frequencies.....  | 38 |

## Chapter 1 Introduction

Young people have participated in organized camp programs for over 150 years (Henderson, Whitaker, Bialeschki, Scanlin, & Thurber 2007). Among the many types of camp programs available are residential outdoor camps. Such camps are primarily designed to offer a program of structured activities for young people in secure environments away from their everyday life places and social contexts for specific periods of time such as a week or more (Garst, Browne, & Bialeschki, 2011). They are largely based in rural outdoor locations and are operated during the summer holiday period.

Residential camps have been widely studied from a variety of perspectives in relation to the positive outcomes they can have on young people (e.g., 10-18) (Van Slyck, 2002; Thurber, Scanlin, Scheuler, & Henderson, 2007; Hutchison, Mecke, and Sharpe, 2008; Henderson & Bialeschki, 2009). Henderson et al. (2007) note, “evidence is mounting that well-designed, well-implemented, youth-centered programs ... have positive outcomes for both young people and their communities” (p. 989). Much of the research has focused on camp programs designed to challenge normal behaviours or confront challenges faced by young people in their daily lives. These studies have, for example, analysed residential experiences as a general therapeutic setting for children dealing with serious illnesses (Hunter, Rosnov, Koontz, & Roberts, 2006), obesity (Vincke & Van Heeringen, 2004), grief (Hrenko, 2005), trauma (Stallard, 2006) or addiction recovery programs (Bennet, Cardone, & Jarczyk, 1998). Another area of research focuses on individual programs particularly assessing the contribution of residential camps in the achievement of specific outcomes such as the development of social skills (Hanna & Berndt 1995; Moore,

2001; Vincke & Van Heeringen, 2004), self-esteem, and shared values through participation and social learning (Yuen, Pedlar, & Mannell, 2005). More recently, researchers have examined the value and benefits of camp experiences using a wider variety of developmental dimensions including psychological, behavioural and social characteristics (Allen, Cox, & Cooper, 2006; Thurber et al. 2006; Merryman, Mezei, Bush, & Weinstein 2012; Glover, Chapeskie, Mock, Mannel, & Feldberg, 2011).

Despite increased research pertaining to camp experiences and the positive outcomes camp can offer individual campers, there has been little research into the impact of camp on general youth development in the Canadian context (Glover et al., 2011). There has been even less examination of camp experiences in relation to youth-at-risk in Canada as this group has the potential to gain much from the camp experience. For the purpose of this study the term " youth-at-risk" is defined as a young person whose background places them "at risk" due to environmental, social and family conditions that hinder their personal development and successful integration into the economy and society (Public Safety of Canada, 2012).

The period between about 10 to 18 years of age, which is the usual age range for attending camp, is a time for development during which many changes can occur to an individual. As Jones, Brown, & Lawrence Aber (2011) suggests, it is a period when youth develop the ability to comprehend abstract content, establish personal relationships, and gain a sense of identity and purpose. It is also a time when young people develop resilience which is considered to be the ability to properly adapt to stress and adversity or the ability to 'bounce back' from difficult experiences. According to Stallard et al. (2005) the more resilient youth are the more likely they are to progress through essential developmental

tasks that lead to success in adulthood. Further, Mahoney, Larson, Eccles, & Lord (2005) found that that youth who have attended a summer camp reported significant positive growth in their self-belief and in their expectations of a good future from pre to post summer camp. Youth-at-risk are also often exposed to poverty, family distress, violence, mental illness, abuse, neglect or community violence. Merryman et al. (2012) explain, that programs such as camps aiming at minimizing the effects of harmful environmental conditions by fostering positive factors in youth-at-risk, are critical to their successful development. In addition, association with the natural environment and outdoor recreation activities such as those provided by summer camps have been shown to facilitate the development of young people by playing a significant role in influencing behavioural patterns and in preventing or reducing risk behaviour (Thurber et al., 2007).

As demonstrated, camp experiences have the potential to contribute to youth development in a number of ways. In an effort to continue to explore the effects of these experiences on youth, the primary purpose of this study is to explore the outcomes of a camp experience on the development of youth-at-risk attending a summer camp in Canada. A secondary purpose is to compare the findings pertaining to the youth-at-risk experience to the findings of a major study conducted with general focus camps in Canada to determine similarities and differences in relation to camper development. The term general focus camps is used to denote camps that are not directed toward specific types of campers such as at-risk youth, those with serious illnesses or trauma, for example.

A camp located in the Province of New Brunswick that provides a residential outdoor camp experience for youth at-risk was the site of the study: Camp Tippy Canoe. Camp Tippy Canoe is a co-ed camp operated by Partners for Youth and the program ran five

week- long camp sessions with approximately 25 campers in each session that were involved in the study conducted during the summer of 2014. Partners For Youth is a non-profit organization founded in 1994. Partners For Youth's aim is to engage youth facing challenges and obstacles in their lives to become capable, connected and contributing members of their communities. They achieve this by offering innovative programs and services, like Camp Tippy Canoe throughout the Province of New Brunswick and recently Prince Edward Island, that promote experiential learning in safe, supportive and rewarding environments, in collaboration with public, private and not for profit partners (Partners For Youth, 2015).

This study of the impact of the residential camp experience on youth-at-risk development draws on the work done by Glover et al. (2011) for the Canadian Summer Camp Research Project (CSCR). Glover et al. (2011) conducted a two-stage study which examined the outcomes of the Canadian summer camp experience. The first stage began in 2007 and involved interviews with 65 camp directors to determine agreement on the desired outcomes of a camp experience. This resulted in the identification of five desired outcome domains (social interaction and citizenship, environmental awareness, self-confidence and personal development, emotional intelligence, and attitudes toward physical activity). These domains were then used to form the foundation for a survey that was sent to members of the Canadian Camping Association. Seventeen general focus camps from across Canada participated in the study which used a participant observation research method. In total 1,288 campers were observed for the study. It is considered worthwhile to build on the Glover et al. (2011) study in order to maintain a Canadian context and to allow for the comparison of findings between a study involving general camper experiences and

at-risk camper experiences. The research is also seen as a step toward contributing to the overall understanding of the impacts of the camp experience in Canada.

This study of the camp experience for youth-at-risk utilized a modified version of the observational survey developed for the CSRP. The study is guided by the following three main research questions:

1. In what areas do youth-at-risk attending camp experience positive outcomes based on their camp experiences?
2. What is the degree of developmental change in these areas experienced by the youth-at-risk over the course of their camp experience?
3. How do the results of this study compare with the Canadian Summer Camp Research Project's findings?

## **Chapter 2 Literature Review**

The literature review was purposely conducted and organized in order to establish a contextual background for the study and to justify the substance and direction of the research. The review is presented in three sections. The review starts by discussing the potential positive outcomes that youth can gain from attending residential summer camps. It then explores the research on the benefits youth-at-risk gain from attending summer camps. Finally, it addresses common means of assessing the outcomes of camp experiences.

### **Summer camp outcomes**

Residential summer camps were first started in North America in the 1880s because the Victorians believed that nature and the outdoors could have moral and physical benefits for children (Maynard, 1999). The first camps started were private all boys camps that targeted wealthy families (Joselit, 1993). However, an increase in the construction of camps in the 1890s brought summer camps to a wider segment of the population (Maynard & Barksdale, 1999). By the early twentieth century summer camps began to be offered for females and were no longer just for the wealthy. This meant that summer camps were increasingly becoming accessible to all youth regardless of their gender or social status (Van Slyck, 2002). In her book, Van Slyck (2002) explains that the goal of early summer camps was to offer 24-hour education to children designed to foster physical health, social development and spiritual development.

Today, summer camps are an international phenomenon run by numerous organizations with various social, political, religious, therapeutic and educational goals (Glover, Graham, Mock, Mannell, Carruthers, & Chapeskie, 2013). They service youth

from an all economic, social and cultural backgrounds, as well as young people with physical, medical and emotional challenges.

Camps foster cognitive, behavioural, physical growth by offering novel, challenging, and engaging experiences for young people where they can test and apply new knowledge and skills which can then be transferred to future life (Merryman et al. 2012; Henderson et al. 2007; Glover et al. 2011). Studies have shown camps offer broad opportunities for contextual learning and transferable skills within personal, social and environmental domains, supportive relationships, safety, and a global sense of national and cultural boundaries through the diversity of young people that attend (Fine, Bialeschki, Browne, & Powell, 2011; Flynn, Richert, Staiano, Wartella, & Calvert, 2014).

Summer camps play a critical role in social development by giving youth opportunities and responsibilities unavailable in schools (Thurber et al. 2007). Fran, Garst, Baughman, Smith, & Peters (2008) suggests that education today is lacking in content and methods and that youth today get many of the skills they need outside of school, from participating in extracurricular activities and programs, personal exploration and social networking which are characteristics of a residential camp experience. Further, Green, Kleiber, & Tarrant (2000) found that youth involved in structured pursuits that offer opportunities for positive interactions with adults and peers, that encourage young people to contribute and take initiative, and that contain challenging and engaging tasks that help them develop and apply new skills and personal talents gain a sense of identity often not found in school. Thurber et al. (2007) go further and suggest that at camp youth should learn 'survival skills' that prepare them for later life by developing critical thinking and problem solving skills, social integration, emotional intelligence, self-confidence, and

curiosity and imagination. Garst et al. (2011) make the point that some youth reinvent themselves through the camp experience by escaping the negative impressions of others because the change in location and environment allows them to revise their self-identity, and develop new connections with nature and one another.

In addition, studies of youth have found that regular outdoor experiences enable youth to develop awareness for nature and establish environmentally protective behaviours (Hartig, Kaiser, & Bowler, 2001; Kals & Ittner, 2003). Glover et al. (2013) explain that summer camps can be classed as one of the main outdoor experiences that help increase positive behavior. Attending an outdoor based summer camp is effective in enhancing positive environmental attitudes among youth because they are ‘living and breathing’ in this environment. Teaching youth how to look after their surroundings and live in a more environmentally conscious way can have a direct impact on their future life e.g. lowering their environmental footprint (James, Bixler, & Vadala, 2010). Furthermore, for most summer camps environmental awareness is a central part of their goals, often introducing a “leave no trace” policy with all youth that attend the camps (Henderson & Bialeschki, 2009). However, some such as Collado, Staats, & Corraliza (2013) and James et al. (2010) argue that a one-time or short-term experience in an outdoor setting that does not match a young person’s home environment, may not create the “life lasting skills” as demonstrated in other studies. Some youth with these types of experiences may need to receive continued education on the environment.

Research has found that youth campers identify supportive relationships with camp staff and this is often one of the most important aspects to having a positive experience at camp (Glover et al. 2011; Garst et al. 2007; Kelly & Kirschenbaum, 2011; Stallard et al.,

2005). A study conducted by the American Camping Association (2006) found that the majority of camps had a staff-camper ratio of one-to-three. This low ratio allowed youth ample opportunities to interact and create a relationship with the camp staff. Furthermore, according to Glover et al. (2011), the low ratio plays an important role in maintaining an emotionally and physically safe environment for participants. Also, because summer camps are often located in remote settings and are just like small communities for the duration of the camp, this allows everyone to interact with each other. Living side by side youth and staff learn from one another and this helps youth improve their self-awareness, self-management, persistence, empathy, and social skills (Ferrari & McNeely, 2007; Fine et al. 2011). Hansen, Larson, and Dworken (2003) point out that camps also encourage friendships and connections with others and develop conflict resolution and cooperative approaches to problems. These are all skills that youth can take away from camp and incorporate in to their daily lives and in the future.

One aspect of youth's daily lives which only recently has been highlighted in research is how summer camps can benefit physical activity levels (Branscum & Sharma, 2012). Current physical activity levels of young people show a decline worldwide and this decline is a key contributor to the global obesity epidemic which in turn is linked to the rising rates of chronic disease (Collado et al., 2013). There are numerous interventions aimed at improving physical activity and eating behaviours at camp; however, researchers such as Ventura & Garst (2013) suggest that overall physical benefits of summer camps are yet to be fully explored, despite the fact that summer camps rank second only to schools in the number of children who attend in North America. Young people generally attend the camp for several days or for multiple week-long periods, and so it is possible for camp staff

to implement innovative and novel activities to promote healthy behaviours. Staff are also in control of the foods offered to youth at meals and can tailor meals to be healthy during camp.

There is some debate about the time period a youth has to attend camp in order to truly benefit from the experience. Some suggest that camp experiences as short as a week can increase youth's locus of control and general self-efficacy, and that the positive effects of camp experiences on children's psychosocial development are maintained beyond their camp experience (Henderson et al. 2007). Others such as Ferrari & McNeely (2007) and Fran et al. (2009) are of the opinion that youth who only participate in day camps or have a single camp experience will not develop long lasting skill development, and such experiences could actually have detrimental impacts on youth because of the differences between the camp environment and the home environment. These authors also believe that positive changes take time to develop and only spending a short time in a camp setting will not be enough for the youth to fully experience the benefits. Glover et al. (2011) are of the opinion that immersive camps and sustained experiences are important because they provided young people the opportunity to achieve their development goals through repeated and new experiences. Camp also provides ample time for relationships to develop with peers, adults, and camp staff to help reinforce positive attitudes and lasting behavioural skills.

### **Summer camp for youth-at-risk**

Research in the area of camps for youth-at-risk has shown a correlation between youth participation in structured activities and outcomes in relation to positive behavior and social change. For example, a study by Reddick and Schaller (2005) found youth-at-risk

scored significantly higher on dimensions of self-concept after participating in a 12-day camp. Merryman et al. (2012) also found that engagement in structured activities increased self-esteem and Allen et al. (2006) found regular attendance, stable staff, and organized programming that encourages high levels of interaction between staff and campers, contributes to an increase in resilience levels of the youth-at-risk attending the camp. This is because camp experiences offer youth opportunities in outdoor settings that provide supportive relationships, a sense of belonging, leadership and skill building through a variety of unfamiliar and new activities which many youth-at-risk do have the chance to experience during their normal lives (Glover et al. 2011; Larson, Hansen, and Walker, 2005). It was pointed out that many youth at risk thrive from having the opportunity to have control and make healthy decisions in a safe environment with support from their peers and staff and as such develop a sense of belonging and new levels of confidence and self-esteem they did not previously have (Hansen, Larson, & Dworkin, 2003). One example of how this works is Outward Bound's 'challenge by choice' model, where youth are encouraged to push themselves and try new experiences in unusual environments outside of their comfort levels but always have a choice in the degree of challenge they want to take on. This model provides youth with the opportunity that challenges them to work with other individuals on conflict resolution and cooperative approaches to problems. It also asks participants to put all their problems behind them and develop leadership and self-belief. Evaluations of the program found that youth-at-risk came away with increased resilience and positive development that they could take away and apply to their daily lives (Outward Bound, 2014).

Summer camps are unique social environments in that youth and staff are brought together as strangers in often rustic and natural settings for periods of a week or more. Such camps have been found to foster inclusivity among people who may not have necessarily been acquaintances outside of this type of environment (Smith, Steel, & Gidlow, 2010). For youth-at-risk attending camp it is a chance for them to leave their home environment and come to a place away from the troubles and issues they may be facing. Camp allows youth-at-risk to just be a young people again, reinventing themselves and starting with a fresh slate with people they may or may not know (Huebner, Walker, & McFarland, 2003). Camp is an equalizing context for youth because everyone eats the same food, participates in the same activities and sleeps in the same places. This means that the differences are immediately taken away so everyone is on an equal playing field and do not have to put up a strong front or image of themselves to be validated by others or to hide behind (Bernat, 2009).

Further, many youth-at-risk lack access to supportive adults outside of school because of family problems, neighbourhood conditions and time demands from family members (Spencer, Jordan, & Sazama, 2004); therefore, supportive relationships at camp with peers and staff combined with sustained and structured experiences, foster the development of deep friendship with peers and adults often looked for by the youth. As Bernat (2009) explained, the youth develop a sense of belonging and connectedness at camp that is often missing from their home environment.

### **Youth development assessment**

As the previous sections indicate there is general understanding that residential outdoor camp experiences provide a context in which youth have opportunities to learn life

skills and other positive attributes that could help them away from the camp experience. The acquisition of such beneficial outcomes is commonly termed Positive Youth Development (PYD) (Moore & Lippman, 2006). Roth, Brooks, Gunn, Murray and Foster (1998) defined PYD as “the engagement in pro-social behaviours and avoidance of health compromising behaviour and future jeopardizing behaviours” (p. 426). According to authors such as Kremer, Maynard, Polanin, Vaughn, & Sarteschi, (2014); and Kegler, Young, Marshall, Bui, & Rodine (2005); Lerner & Lerner (2014) the term positive PYD has its origins in the field of prevention and was developed to promote positive factors that could influence a young person’s ability to overcome adversity by engaging them within their communities, schools, peer groups, and families in a way that is productive and enhances their strengths.

One of the most prominent conceptualizations of PYD is Lerner et al. (2005) ‘5Cs’ model. The Cs represented competence, confidence, connection, character, and caring/compassion. Competence is understood as a positive view of one’s actions in specific areas. Confidence is the overall sense of positive self-worth, and self-efficacy. Connection refers to positive bonds with people and community. Character reflects an individual’s respect for societal and cultural rule. A person’s sense of sympathy and empathy for others is the essence of caring and compassion.

Lerner et al. (2005) first sought to establish empirical evidence to support the existence of the 5Cs model through the study of 1700 grade five students in the United States. They also tested whether youth development programs such as 4H Clubs, Boys and Girls Clubs, Scouts and the YMCA were associated with the 5Cs using 19 specific indicators. The indicators included measures of elements such as positive identity and self-

worth to represent confidence, academic and social accomplishments for competence, personal value as social conscience to represent character, sympathy for disadvantaged and those in pain for caring/compassion and relationships with family and community to represent connection. The results of their work showed empirical validity of the 5Cs for PYD, although their analysis indicated that there was substantial overlap among the factors indicating the need for further research.

Subsequent to the work of Lerner et al. (2005) the 5Cs model has formed the foundation for a number of other studies. For example, Phelps, Zimmerman, Warren, Jeličić, Von Eye, & Lerner (2009) have used the basic 5C model to study larger samples of school children. It has also been used to study PYD in relation to sports (Jones, Dunn, Holt, Sullivan & Bloom, 2011; Harwood, Johnson, & Minniti, 2013) and in relation to wilderness intervention programs for youth (Skiar, Anderson & Autry, 2007). Despite the use of the model in a variety of contexts, Jones et al. (2011) suggest scholars should continue to study diverse samples of youth, as well as how the 5Cs operated in a wider variety of situations, as this will assist with strengthening the validity of the 5Cs and further the understanding of PYD.

Others involved with outcome research pertaining to youth development programs such as the American Camping Association (ACA) (2005); Ellis and Sibthorp (2006); Henderson, Bialeschki, & James (2007); Sibthorp, Browne, & Bialeschki (2010); Glover et al. (2011) and Sibthorp et al. (2013) have made efforts to develop alternative models. For example, the ACA identified and measured six different domains relevant to summer camps. These included independence, self-esteem, confidence, social skills and spirituality. In addition, Sibthorp et al. (2013) built on the work done by the ACA as well as Ellis &

Sibthorp (2006) and Sibthorp et al. (2010) and created and tested the Youth Outcome Battery (YOB). The YOB is comprised of 11 subscales including friendship skills, family/citizenship behaviour, responsibility, independence, teamwork skills, perceived competence, affinity for exploration, affinity for nature, problem solving confidence, camp connectedness and spiritual wellbeing. The results of the Sibthorp, Bialeschki, Morgan, & Browne (2013) largely support the validity of the subscales, but it was not clear that the youth could see some of the outcomes as distinct. The subscales of perceived competence, responsibility, independence, teamwork skills, and problem-solving competence were the ones most problematic for the youth. Sibthorp et al. (2013) make the point that the model is appropriate for use by a number of youth serving agencies; but further modification is needed if a self-reported data collection method is used, as was the case with their study. They also suggest that further modification of the subscale could be done for clarity.

In affiliation with the Canadian Camping Association, Glover and colleagues. (2011) conducted a study of the impact of the camp experience on general child development. For this study 65 camp directors were interviewed in order to identify desired outcomes of the summer camp experience. The resulting outcome areas included social interaction and citizenship, environmental awareness, self-confidence, personal development, emotional intelligence, and attitudes toward physical activity. A survey instrument was subsequently developed to measure the degree of change in campers during camp sessions. The survey instrument was designed to determine if changes were occurring in each of the outcome areas over the course of the camp experience. In this study, staff member observed their campers at the beginning of camp and at the end of the camp

session noting how campers behaved regarding the abilities, attitudes and values in each of the five outcome areas based on a seven point scale.

Results of their study indicated that positive development in all five areas occurred over the course of a camp session, although there were differences related to factors such as camper gender, age and previous camp participation. Glover et al. (2011) suggested that further research that explores differences among camper's experiences and with different groups of campers is needed to offer more insight into an overall understanding of the impact of the camp experience.

### **Summary**

A review of the literature relating to summer camp experiences has shown that summer camps have the potential to provide a safe enriching environment to foster cognitive, behavioural, physical, and spiritual growth by offering novel, challenging, and engaging experiences for young people where they can test and apply new knowledge and skills which can then be transferred to school and future life. Research specific to the outcomes of the camp experience for at-risk youth also suggests the potential for positive changes for this group of youth. Efforts to study outcomes of the camp experience have focused on various indicators of positive youth development and there is increasing evidence of the value of such experiences. The literature does, however, suggest that further research pertaining to both the outcome indicators and the camp experience for different groups of campers is needed.

## **Chapter 3 Methodology**

As demonstrated in the literature review, there is an increasing understanding of the impact of residential camps on the development of youth in general, but little is known about the impact of the camp experience on youth-at-risk, especially in Canada. As such, the aim of this research was to gain an understanding of the camp experience on the development of youth-at-risk at a summer camp in New Brunswick, and to compare the findings from the youth-at-risk study to a study conducted with general focus camps in Canada. This chapter describes the research approach of the study, explains the sample selection, describes the procedure used in designing the instrument and collecting the data, and provides an explanation of the statistical procedures used to analyse the data.

### **Research approach**

This was an exploratory study of one camp situation that used a quantitative approach to describe how youth-at-risk are impacted by an outdoor residential camp experience in five main outcome areas, which are: social connections and integration, environmental awareness, self-confidence and personal development, emotional intelligence, and physical activity attitudes. As Hermans (2014) points out, quantitative research is appropriate in describing a situation as it exists at the time of a study and to explore particular phenomena in terms of 'what is'. Observation was the main data-collection tool used for the study. Observation is gathering first-hand information by watching people, events, or geographic areas, and it is most successful when there is tangible behaviour, physical evidence, outcomes or a product that can be seen or heard (Riddick & Russell, 2008). It also allows the researcher to view the participants in their

natural setting and to record what happens without impacting the subject's natural inclinations to behave and engage in activities (Durpos & Wiebe, 2010).

### **Study participants**

This study used a purposive sample of youth who attended Camp Tippy Canoe. This is a camp operated by Partners for Youth, which is a non-profit organization working with youth-at-risk in the province of New Brunswick, Canada. Youth who are perceived to have risk factors ranging from high (e.g. trouble with the justice system) to low ( e.g. behavioral issues) in their lives as well as youth with positive factors to help balance and create a supportive group are chosen by their school and Partners For Youth to participate in the programs. This camp was selected because attracts campers from across the province and the organization was willing to participate in the study. The organization was selected because the researcher has worked for Partners For Youth for the past four years as a summer staff member and for the last 2 years Summer Camp Director and Project Coordinator and has extensive background experience in summer camps and youth programming.

Camp Tippy Canoe is a co-ed summer camp that runs five, one-week camps every summer. Each week between 20 and 25 new youth campers attend. In the summer of 2014 when data for this study was collected the camps consisted of three weeks of middle school age youths, one week of elementary school age youths, and one week of high school age youths. The middle school youth had previous of coming to camp all been involved in a Partners For Youth program during the school year and a portion of them knew one another. In total, 102 young people were observed during the study. The observations were made by eight camp staff who worked for Partners for Youth. Each week the camp staff

were assigned specific youth attending camp and they followed a pre-structured observational survey, which was completed twice during each of the five weeks of camp for the campers they were assigned.

### **Instrumentation**

The observational survey was adapted from the Canadian Summer Camp's observational survey (Glover et al., 2011). The full survey for this study is provided in Appendix 1 and little changed for this study from the CSCP's survey (Glover et al., 2011). The main alterations involved taking out question seven from the original survey about the camper's cultural background and rewording the first two questions to protect privacy. These changes were made at the request of the Research Ethics Board. Ethical approval for this study was approved by the University of New Research Ethics Board reference number REB #2014-062.

The purpose of the observational survey was to measure camper's behaviours, attitudes and values at the beginning, and end of their time at camp pertaining to five key themes. Section A, "Social Connections and Integration", addressed the camper's friendships and their other social connections during the reporting period. Observations included such aspects as how many friendships the camper developed, the nature of these friendships and how much support they received from others at camp. Section B, "Environmental Awareness", examined camper's awareness of environmental issues and their impact on the environment. Section C, "Self-Confidence and Personal Development", addressed the degree of personal growth and self-confidence the camper showed during the reporting period. Section D, "Emotional Intelligence", examined the extent to which the camper displayed an understanding of their own emotions as well as those of others around

them. Section E, “Attitudes Toward Physical Activity”, addressed the extent to which the camper enjoyed participating in physical activities both in general and relating to specific activities. Basic demographic information was also collected about each camper from the camp registration form before each camp started. This included such information as age, gender, first language and how many times the camper had been to camp previously.

The survey was designed to allow for a statistical measurement of the degree of change observed in each of the outcome areas over the course of the camp experience. Each statement was scored on a ranking order where a higher number indicated a stronger agreement with the statements when undertaking the observations of the camper (1= very strongly disagree, 7= very strongly agree).

### **Data collection**

Data collection started the first week of camp on July 14<sup>th</sup> and was completed the last week of camp on August 18<sup>th</sup>. During staff training camp counselors were introduced to the study and trained on how to use the observational survey by the researcher. Training consisted of the researcher discussing the purpose of the survey with each staff member and then each camp staff practicing to complete the survey on another staff member during the staff training week. On the first day of each week, camp surveys were handed to the camp staff. Each camp staff was assigned 1-4 campers for the week to observe for the survey (Appendix 1), and attached to the front of every survey was an information and agreement to participate sheet (Appendix 2). Data was collected at two intervals each week, after the first 48 hours and at the end of camp. In order to help with the reliability of the observations made, the camp staff were asked to complete the surveys by themselves and to

not discuss any of their observations during data collection points or whilst at camp. The researcher was not involved in the observation process.

### **Method of analysis**

Statistical package for the social sciences (SPSS) was used to analyse the data. Paired t-Tests were conducted to examine the change in camp counselors' ratings of campers' interpersonal and personal development from the first 48 hours to the end of camp. A paired t-Test was used because it allows two samples (first 48 hours scores and the end of camp scores) to be compared to each other while removing the correlation that exists between the two groups because they are comprised of the same people (102 campers observed in the study).

One way analysis of variance (ANOVAs) was used to find the associations between gender, returning camper status, and age frequencies on interpersonal and personal development. One way analysis of variance (ANOVAs) were used because the procedure examines what the variation or difference is within the groups e.g. the difference in scores between genders, returning camper status, or age frequencies from the first 48 hours and the end of camp. The test further examines the differences between the groups taking into account how many campers are in each group and if the observed differences are greater than what is likely to occur by chance. If not by chance, there is statistical significance.

### **Study comparisons**

Following the analysis of the data from the study of Camp Tippy Canoe the results were compared with the results of the Canadian Summer Camp Research Project conducted by Glover et al. (2011) in order to determine if there were similarities or differences between the general focus camp experiences and the youth-at-risk camp experiences. The

comparison included the five central outcome areas as well as characteristics such as gender, age and previous camp experience. It should be noted that the age categories used in the two studies differed and while this allowed for a general comparison it was not possible to directly related the findings by age.

## **Chapter 4 Results**

In this chapter the results of the data analysis are presented. The analysis was conducted to examine the change in camp staffs' rating of campers' interpersonal and personal development after the first 48 hours (T1) and at the end of camp (T2). The relations of gender, age group, and returning camper status with the ratings of campers' interpersonal and personal development were also examined.

### **Camp context**

Camp Tippy Canoe is located on a 65-acre, old provincial campsite on North Lake, NB. Camp Tippy Canoe is a wilderness, adventure based social development and empowerment camp where youth can find safe, secure, accepting, and rewarding environments in which to improve their lives. Camp emphasizes peer education, and empowering youth to act as leaders, and role models. The camp follows a general camp experience and does not include program elements directed at risk behaviors. On site, Camp Tippy Canoe has a number of wilderness and team building activities for campers. For example, there is a low ropes course and an orienteering course designed to challenge campers in a variety of ways. Camp Tippy Canoe has eight full time staff divided into two teams of four with two males and two females on each team. All staff have first aid training and are well equipped to work in the natural environment as they have extensive outdoor experience and skills. Camp Tippy Canoe has two lifeguards on staff with one on each team. The camp runs four middle school camps, one elementary school camp and one leadership (high school) camp on average accommodating between 120-150 young people each summer. Each week campers are split into two groups of 10 with each staff team. The duration of camp differs depending on the youth's age. The elementary camp lasted for

three days and is based on site with a day canoe trip; the middle school camps run for five days and the majority of this time is spent away from camp on a three-day canoe trip around the surrounding lakes; the leadership (high school) camp is between six to seven days and like the middle school camp the majority of the time, four or five days, is spent on trip.

### **Response rate**

A total of 102 campers were observed for this study, 58 males and 44 females. The age frequencies were as follows: 10-11= 22, 12-14 = 68, 15-17= 12. The mean age was 13.12 (2.50 SD) and 62% of all campers were returning.

\*T1 stands for the first observation time at the start of camp

\*\*T2 stands for the second observation time at the end of camp

### **Change in interpersonal and personal development**

Paired t-Tests were conducted to compare changes in interpersonal and personal development for each camper. The results showed significant increases in the mean scores from T1 to T2 for the 5 outcomes (social connections and integration, T1 M= 4.67, T2 M= 4.97, environmental awareness, T1 M= 4.76, T2 M= 4.96, self-confidence and personal development, T1 M= 4.55, T2 M= 4.82, emotional intelligence, T1 M= 4.61, T2 M= 4.91, and physical activity attitudes, T1 M= 4.61, T2 M= 4.74) as shown in the Table 1.

### **Difference by gender**

No significant difference was found in the T1 and T2 scores between males and females in all five areas: social connections and integration (Males, M =3.77, Females, M= 3.86), environmental awareness (Male, M=1.06, Females, M=.90), self-confidence and personal development (Males, M= 1.06, Females, M= 2.02), emotional intelligence (Males,

M= 3.05, Females, M= 3.02), and physical activity attitudes (Males, M= 0.89, Females, M=.90) as shown in the Table 2.

**Table 1 Paired t -Test: Comparison interpersonal and personal development from T1 to T2**

| Paired Samples Test |  |                    |                |                 |   |          |         |     |                 |
|---------------------|--|--------------------|----------------|-----------------|---|----------|---------|-----|-----------------|
|                     |  | Paired Differences |                |                 |   |          | t       | df  | Sig. (2-tailed) |
|                     |  | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |          |         |     |                 |
|                     |  |                    |                |                 | Lower                                     | Upper    |         |     |                 |
| Pair 1              | Social connections and integration T1<br>Social connections and integration T2             | -3.81373           | 3.31731        | .32846          | -4.46531                                  | -3.16214 | -11.611 | 101 | .000            |
| Pair 1              | Environmental awareness T1<br>Environmental awareness T2                                   | -1.00000           | 1.16890        | .11574          | -1.22959                                  | -.77041  | -8.640  | 101 | .000            |
| Pair 1              | Self-confidence and personal development T1<br>Self-confidence and personal development T2 | -2.09804           | 1.96257        | .19432          | -2.48352                                  | -1.71255 | -10.797 | 101 | .000            |
| Pair 1              | Emotional intelligence T1<br>Emotional intelligence T2                                     | -3.03922           | 2.66225        | .26360          | -3.56213                                  | -2.51630 | -11.530 | 101 | .000            |
| Pair 1              | Physical activity attitudes T1<br>Physical activity attitudes T2                           | -.90196            | 1.00010        | .09902          | -1.09840                                  | -.70552  | -9.108  | 101 | .000            |

**Table 2 Oneway ANOVA: Gender effect comparisons between T1 and T2 measurements**

| ANOVA   |                |                |     |             |      |      |
|---|----------------|----------------|-----|-------------|------|------|
|   |                | Sum of Squares | df  | Mean Square | F    | Sig. |
| Difference in total score from social connections and integration T1 and T2       | Between Groups | .193           | 1   | .193        | .017 | .895 |
|   | Within Groups  | 1111.268       | 100 | 11.113      |      |      |
|   | Total          | 1111.461       | 101 |             |      |      |
| Difference in total score from environmental awareness T1 and T2                  | Between Groups | .639           | 1   | .639        | .466 | .497 |
|   | Within Groups  | 137.361        | 100 | 1.374       |      |      |
|   | Total          | 138.000        | 101 |             |      |      |
| Difference in total score from self-confidence and personal development T1 and T2 | Between Groups | .439           | 1   | .439        | .113 | .738 |
|   | Within Groups  | 388.581        | 100 | 3.886       |      |      |
|   | Total          | 389.020        | 101 |             |      |      |
| Difference in total score from emotional intelligence T1 and T2                   | Between Groups | .021           | 1   | .021        | .003 | .957 |
|   | Within Groups  | 715.822        | 100 | 7.158       |      |      |
|   | Total          | 715.843        | 101 |             |      |      |
| Difference in total score from physical activity attitudes T1 and T2              | Between Groups | .004           | 1   | .004        | .004 | .950 |
|   | Within Groups  | 101.016        | 100 | 1.010       |      |      |
|   | Total          | 101.020        | 101 |             |      |      |

See Appendix 3 for gender mean scores in all 5 areas.

**Difference by returning camper status**

There was a significant difference found in social connections and integration scores between T1 and T2 for returning campers (M= 3.26) and new campers (M= 4.7). No significant difference was found between T1 and T2 scores for environmental awareness (Returning campers, M=1.06, New camper, M= .89), self-confidence and personal

development (Returning campers, M= 1.92, New campers, M = 2.39), emotional intelligence (Returning camper, M= 3.06, New camper, M= 3.0), and physical activity attitudes (Returning camper, M= .93, New camper, M= .84) as shown in Table 3. Table 4 shows the scores for each of the five areas for T1 and T2 for returning campers and new campers.

**Table 3 Oneway ANOVA: Returning camper status effect comparisons between T1 and T2**

**Measurements**

| ANOVA   |                |                |     |             |       |      |
|---|----------------|----------------|-----|-------------|-------|------|
|   |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| Difference in total score from social connections and integration T1 and T2       | Between Groups | 51.608         | 1   | 51.608      | 4.869 | .030 |
|   | Within Groups  | 1059.853       | 100 | 10.599      |       |      |
|   | Total          | 1111.461       | 101 |             |       |      |
| Difference in total score from environmental awareness T1 and T2                  | Between Groups | .671           | 1   | .671        | .489  | .486 |
|   | Within Groups  | 137.329        | 100 | 1.373       |       |      |
|   | Total          | 138.000        | 101 |             |       |      |
| Difference in total score from self-confidence and personal development T1 and T2 | Between Groups | 5.331          | 1   | 5.331       | 1.389 | .241 |
|   | Within Groups  | 383.688        | 100 | 3.837       |       |      |
|   | Total          | 389.020        | 101 |             |       |      |
| Difference in total score from emotional intelligence T1 and T2                   | Between Groups | .093           | 1   | .093        | .013  | .909 |
|   | Within Groups  | 715.750        | 100 | 7.158       |       |      |
|   | Total          | 715.843        | 101 |             |       |      |
| Difference in total score from physical activity attitudes T1 and T2              | Between Groups | .217           | 1   | .217        | .215  | .644 |
|   | Within Groups  | 100.803        | 100 | 1.008       |       |      |
|   | Total          | 101.020        | 101 |             |       |      |

See Appendix 3 for returning camper status mean scores in all 5 areas.

**Table 4 Returning camper status difference in scores between T1 and T2**

|  | Returning campers T1 scores | Returning campers T2 scores | New campers T1 scores | New campers T2 scores |
|--|-----------------------------|-----------------------------|-----------------------|-----------------------|
| Social connections and integration       | 4.64                        | 4.93                        | 4.70                  | 5.04                  |
| Environmental Awareness                  | 4.74                        | 4.90                        | 4.80                  | 5.06                  |
| Self-confidence and personal development | 4.56                        | 4.84                        | 4.55                  | 4.79                  |
| Emotional Intelligence                   | 4.59                        | 4.93                        | 4.64                  | 4.88                  |
| Physical activity attitudes              | 4.52                        | 4.66                        | 4.75                  | 4.87                  |

### **Difference by age**

There was a significant difference between T1 and T2 between age frequencies for environmental awareness (10-11, M= .78, 12-14, M= .93, 15-17, M= 1.72) and emotional intelligence (10-11, M= 3.07, 12-14, M= 2.74, 15-17, M= 5.09) No significant difference was found between T1 and T2 for social connections and integration scores (10-11, M= 4.07, 12-14, M= 3.57, 15-17, M= 5.18), self-confidence and personal development (10-11, M= 1.92, 12-14, M= 2.02, 15-17, M= 2.81), and physical activity attitudes (10-11, M= .9286, 12-14, M= 2.02, 15-17, M= 2.81) scores between age frequencies in T1 and T2 as shown in Table 5.

A significance difference was found between all frequencies for environmental scores for T1 and T2 (10-11, M= .78, 12-14, M= .93, 15-17, M= 1.72). However, 10-11. The 15-17 age group showed the largest significant difference as shown in Table 6.

A significance differences was between the frequencies 10-11 and 15-17 (10-11, M= 3.07, 12-14, M= 2.74, 15-17, M= 5.09) for emotional intelligence scores in T1 and T2 as shown in Table 7.

See Appendix 3 for age difference mean scores in all 5 areas.

**Table 5 Oneway ANOVA: Age frequencies comparisons between T1 and T2**

| ANOVA   |                |                |     |             |       |      |
|---|----------------|----------------|-----|-------------|-------|------|
|   |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| Difference in total score from social connections and integration T1 and T2       | Between Groups | 26.039         | 2   | 13.019      | 1.187 | .309 |
|   | Within Groups  | 1085.422       | 99  | 10.964      |       |      |
|   | Total          | 1111.461       | 101 |             |       |      |
| Difference in total score from environmental awareness T1 and T2                  | Between Groups | 6.786          | 2   | 3.393       | 2.560 | .082 |
|   | Within Groups  | 131.214        | 99  | 1.325       |       |      |
|   | Total          | 138.000        | 101 |             |       |      |
| Difference in total score from self-confidence and personal development T1 and T2 | Between Groups | 6.507          | 2   | 3.253       | .842  | .434 |
|   | Within Groups  | 382.513        | 99  | 3.864       |       |      |
|   | Total          | 389.020        | 101 |             |       |      |
| Difference in total score from emotional intelligence T1 and T2                   | Between Groups | 53.200         | 2   | 26.600      | 3.974 | .022 |
|   | Within Groups  | 662.643        | 99  | 6.693       |       |      |
|   | Total          | 715.843        | 101 |             |       |      |
| Difference in total score from physical activity attitudes T1 and T2              | Between Groups | 1.026          | 2   | .513        | .508  | .603 |
|   | Within Groups  | 99.994         | 99  | 1.010       |       |      |
|   | Total          | 101.020        | 101 |             |       |      |

**Table 6 Significant differences between age frequencies for environmental scores**

|  |                 | F     | Sig. |
|--|-----------------|-------|------|
| Difference in total score from environmental T1 and T2 between | 10-11 and 12-14 | 2.863 | .094 |
|  | 10-11 and 15-17 | 5.990 | .022 |
|  | 12-14 and 15-17 | 3.728 | .057 |

**Table 7 Significant differences between age frequencies for emotional intelligence scores**

|   |                 | F     | Sig. |
|---|-----------------|-------|------|
| Difference in total score from emotional intelligence T1 and T2 between | 10-11 and 12-14 | 1.512 | .222 |
|   | 10-11 and 15-17 | 4.830 | .038 |
|   | 12-14 and 15-17 | 2.267 | .136 |

See Appendix 3 for age difference mean scores in all 5 areas.

### **Summary**

In summary, a significant difference ( $p=0.000$ ) was found in T1 and T2 scores for all five areas (social connections and integration, environmental awareness, self-confidence and personal development, emotional intelligence, and physical activity attitudes). Further analysis showed there was no difference in scores between genders. However, a significant difference was found between scores for returning campers and new campers (.030) in social connections and integration with new campers showing the highest scores between T1 and T2. Finally a significant difference in scores was found in age frequencies for environmental awareness (.082) and emotional intelligence (.022) and when broken down the largest significant difference was found to be between age groups of 10-11 and 15-17 for both environmental awareness (0.22) and emotional intelligence (0.38).

## **Chapter 5 Discussion**

The results from this study suggest that summer camp experiences are beneficial for youth-at-risk. In terms of positive growth, young people who attended Camp Tippy Canoe showed significantly greater positive growth from T1 to T2. These findings support previous evidence that suggests organized summer camp foster experiences for positive development in areas such as cognitive, behavioural, physical and social growth by offering unique, challenging, and engaging experiences for youth (e.g., Henderson, et al., 2007; Glover et al., 2011). Since many youth-at-risk may not have social or financial resources to engage in a variety of recreation activities (Larson et al., 2005), summer camps like Camp Tippy Canoe may provide a supportive environment that encourages and increase resilience levels in youth. This discussion chapter is divided into the following sections: 1) Social connections and Integration, 2) Environmental Awareness, 3) Self-Confidence and Personal Development, 4) Emotional Intelligence, 5) Physical Activity Attitudes, and 6) Comparison to the Canadian Summer Camp.

### **Social connections and integration**

Youth-at-risk who attended Camp Tippy Canoe showed significant growth in social connections and integration due to the engagement in unique and enriching activities such as hiking, canoeing, games, swimming, and camping. This supports research by Green, Kleiber, & Tarrent (2002) and Flynn et al. (2014) who proposed that youth benefit when they spend time engaged in structured activities that offer opportunities for positive interactions with adults and peers. These structural activities encourage youth to contribute and take initiative by challenging and engaging them in tasks that help them develop and apply new skills and personal talents, gaining a sense of identity and making new social

connections. The findings on social connections and integration for this study reinforce findings from previous studies that suggest summer camps are environments where social interaction is unavoidable. Summer camps provide an equal and safe space for youth to develop friendships and relationships with peers, adults, and staff that they often do not have the opportunity to in their home environments (Huebner et al., 2003). These observations showed that supportive social relationships at camp fostered new friendships and a sense of belonging and connectedness, because camp is an equalizing context where many of the status symbols for youth are less prevalent and everyone of equal status. Youth do not have to feel the need to put up a strong front or image of themselves to be validated by others or to hide behind (Fine et al., 2011).

The analyses revealed there was a difference in the degree of developmental change in certain groups of campers compared to others in terms of social connections and integration. There was a significant difference found in the increase of social connections and integration scores between returning campers and new campers. First time campers showed greater positive change between T1 and T2. This agrees with the literature on social integration that suggests making friends and developing a sense of belonging is something completely new for first time attendees so they have much more opportunity for growth in this area. Summer camp experiences also offer youth opportunities in settings that provide supportive relationships, a sense of belonging, leadership and skill building through a variety of new activities that many youth do not have the chance to participate in, during their normal lives (Glover et al., 2013).

## **Environmental awareness**

Youth-at-risk who attended Camp Tippy Canoe showed significant growth in environmental awareness from participating and experiencing living in an outdoor environment during their time at camp. This supports previous evidence that summer camps can be classed as one of the main outdoor experiences to help enhance positive environmental behaviour, because the youth are ‘living and breathing’ the environment. So their behaviours directly impact the environment they are in and it teaches them how to live a more environmentally conscious life (James et al., 2010). At Camp Tippy Canoe environmental awareness is a central part of their philosophy and they follow a leave no trace policy that all campers have to abide by during their time at camp (Partners For Youth 2015). Further, analysis of the findings showed significant difference between the oldest and youngest age group in terms of development of environmental awareness. According to (Collado et al., 2013), older youth demonstrate the most positive actions because they have had time to develop and adopt these behaviours through their years of experiences compared to the younger campers who for many, at camp or experiencing outdoor programs for the first time.

## **Self-confidence and personal development**

Youth-at-risk who attended Camp Tippy Canoe showed significant growth in self-confidence and personal development as a result of the new opportunities and responsibilities that might not have been available in their daily lives or education. The results for this study match the results from a study by Glover et al. (2013), which indicated that campers experienced growth in a wide variety of areas, including, self-esteem, self-efficacy, peer relationships, independence, adventure and exploration, leadership,

environmental awareness, friendship skills, values and decisions, social integration, and spirituality. This finding is also consistent with work done by Henderson et al. (2007) who explain that camp offers support and opportunities to youth to seek new information and test their existing knowledge in a safe and challenging environment so as to nurture natural growth. In the same vein, Hanson et al., (2003) found that many youth-at-risk attending summer camps thrive from having the opportunity to have control, to push themselves, and to make healthy decisions in the camp environment. They develop a sense of belonging and new levels of confidence and self-esteem (Hansen et al., 2003) with help from camp staff.

### **Emotional intelligence**

Youth-at-risk who attended Camp Tippy Canoe demonstrated significant growth in emotional intelligence. This is consistent with research by Fine et al. (2011) whose study found that campers were able to increase their emotional intelligence throughout their camp experience because they were able to bond with others, increase their independence, and build relationships. Similarly, Henderson et al. (2007) found that campers experienced positive changes in the areas of making friends, social comfort, and peer relationships. Many youth-at-risk lack access to supportive social groups outside school because of family problems, neighbourhoods and the time demands of family. They are unable to develop positive relationships or understanding of how to express appropriate emotions in social situations (Spencer et al., 2004). Summer camps, like Camp Tippy Canoe, provide supportive relationships with peers and staff that can lead to the development of deep friendships with peers and adults. Youth learn how to express themselves positively and confidently in relation to others. Further analysis of the findings showed significant differences between the oldest and youngest age group in terms of development of

emotional intelligence. Like environmental awareness, emotional intelligence is learned at a young age and is a skill that is developed as young people grow up through continuous interactions and experiences (Henderson et al., 2007). In other words, a result like this might be expected because the older youth have had more time to develop friendships, develop social norms, and learn how to express themselves appropriately whereas the younger age groups are still only learning and developing new skills (Glover et al., 2011).

### **Physical activity attitudes**

In general all Youth-at-risk who attended Camp Tippy Canoe showed significant growth in physical activity attitudes during their time at camp. The high intensity rate, duration, and program of Camp Tippy Canoe agrees with the limited research on the physical activity benefits of summer camp experiences. Previous studies have found that campers' attitudes towards physical activity improved towards the end of their camp sessions because they are immersed in a physically active environment where physical activity is well disguised in the form of fun and games, allowing youth to adopt a healthy lifestyle, often without even realizing it (Glover et al., 2011). Previous studies that have followed up with parents after their child has returned from camp found that since attending the camp, the campers were more physically active, played more sports, and were more interested in activities and games that are more active (Garst et al., 2007).

### **Comparison to the Canadian Summer Camp Research Project**

The findings from this study match the results reported in the Canadian Summer Camp Research Project, in which the study reported significant personal development and interpersonal growth in all five areas (social connections and integration, environmental awareness, emotional intelligence, and attitudes towards physical activity). Table 8 shows

how closely the results from this study compare with the results of the Canadian Summer Camp Research Project (Glover et al., 2011). However, when comparing the two studies in relation to gender, returning camper status, and age, some differences were found.

**Table 8 Comparison of the average scores for Canadian Summer Camp Research Project and the average results for this study**

|  | Canadian Summer Camp Research Project Average score T1 | Canadian Summer Camp Research Project Average score T2 | Camp-Tippy Canoe Average score T1 | Camp-Tippy Canoe Average score T2 |
|--|--|--|-----------------------------------|-----------------------------------|
| Social Connections and Integration       | 4.5  | 5.0  | 4.6                               | 4.9                               |
| Environmental Awareness                  | 4.4  | 4.6  | 4.7                               | 4.9                               |
| Personal Development and Self-Confidence | 4.9  | 5.2  | 4.5                               | 4.8                               |
| Emotional Intelligence                   | 4.5  | 4.8  | 4.6                               | 4.9                               |
| Physical Activity Attitudes              | 4.9  | 5.1  | 4.6                               | 4.7                               |

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

denotes the second recording time at the end of camp

## **Gender**

A difference in gender results was found between this study and the Canadian Summer Camp Project's results. In this study no significant difference in gender was found in any of the five areas whereas, the Canadian Summer Camp Project reported significant differences in all five areas with females showing significant differences in all areas (social

connections and integration, environmental awareness, and emotional intelligence) except attitudes towards physical activity where the males scored higher. This difference may be due to the fact that the youth-at-risk study has a smaller population of female participants (44). The difference of gender needs to be studied further in future studies.

### **Returning camper status**

A difference in returning camper status was found between this study and the Canadian Summer Camp Project's results. In this study a significant difference in returning camper status was found in social connections and integrations with new campers showing the higher scores. No significant differences were found in any of the other four areas (environmental awareness, emotional intelligence, and attitudes towards physical activity) between the two groups. By contrast, the results from the Canadian Summer Camp Project found significant differences in four of the five areas with returning campers scoring higher in all except attitudes towards physical activity where no significant difference was found. The difference maybe because youth-at-risk attending summer camp for the first time have the opportunity to engage in an outdoor setting that provides supportive relationships, a sense of belonging, leadership and skill building through a variety of activities in which many youth-at-risk do not normally have the chance to participate during their normal lives than the youth from the CSCP study who may have more opportunities outside of the summer camp setting.

### **Age**

A difference in age results was found between this study and the Canadian Summer Camp Project's results. The age groups were slightly different between the two studies and

so a direct comparisons cannot between the two studies however a general relation can be made. This study's youngest camper was ten compared to the Canadian Summer Camp Project's youngest campers who were four years old so this resulted in the age groups being different in the analysis as shown in the Table 9 below:

**Table 9 Age frequencies**

| This study | Canadian Summer Camp Project |
|------------|------------------------------|
| 10-11      | 4-6                          |
| 12-14      | 7-9                          |
| 15-17      | 10-12                        |
|            | 13-18                        |

The age groups were changed for this study because Camp Tippy Canoe already had pre-established age groups (elementary, middle school, and high school). Results for this study showed that the oldest group of campers (15-17) showed a higher score in all five areas and further analysis showed a significant difference in the environmental awareness and emotional awareness. When broken down, a significant difference was found between the 10-11 group and the 15-17 group. The results for the Canadian Summer Camp Project reported differences in the age between all five groups. The older campers (13-18) scoring the highest in four of the five areas except for physical activity were the youngest campers (4-6) showed the highest scores.

## Chapter 6 Conclusions and Recommendations

This research study contributes to the limited research on the benefits of summer camp for youth-at-risk. Research has shown a correlation between youth who participate in positive organized camp experiences and outcomes in positive behaviour and social change (Reddick & Schaller, 2005). This study suggests that the youth-at-risk who attended Camp Tippy Canoe developed a positive identity, social skills, physical skills, environmental awareness and positive values through a structured outdoor camp experience designed to challenge and engage them in their environment. The results showed a significant increase ( $p=.000$ ) in the five key areas (social integration, environmental awareness, emotional intelligence, attitudes towards physical activity) from T1 (after 48 hours) and T2 (end of camp).

The study looked to answer three questions:

1. To understand what areas youth-at-risk attending camp experience positive outcomes based on their camp experiences?

The results of this study showed that campers experienced significant positive growth in all five areas, social integration, environmental awareness, emotional intelligence, and attitudes towards physical activity, while attending Camp Tippy Canoe by displaying changes in their behaviour, attitudes and values between the two testing periods.

2. What is the degree of developmental change in these areas experienced by the youth-at-risk over the course their camp experience?

The analyses revealed that there was a difference in the degree of developmental change in certain groups of campers compared to others. There was no difference found

between the two genders in any of the five key areas. In terms of returning camper status, a difference was only found in social connections and integrations with new campers showing the highest score. Finally, the findings found two significant differences between the age groups for environmental awareness and emotional intelligence with the oldest group scoring the highest.

3. How do the results of this study compare with the Canadian Summer Camp Research Project's findings?

The findings from this study match the results reported in the Canadian Summer Camp Project, in which the study reported significant personal development and interpersonal growth in all five areas (social connections and integration, environmental awareness, emotional intelligence, and attitudes towards physical activity). However, when comparing the studies in relation to gender, returning camper status, and age some differences were found.

### **Limitations**

A limitation of this study was the use of staff as camper evaluators. The observations of staff were subjective, which may have resulted in some inconsistencies across staff observations. Their subjective opinions may be illustrated in terms of what they were looking for campers to demonstrate for each aspect of the seven point rating scale. The variability among different staff ratings of developmentally appropriate levels may differ.

Another limitation to this study was that only one summer camp was used (Camp Tippy Canoe) so the results are only specific to this camp and cannot be generalized for the whole population of youth-at-risk in who have summer camp experiences. In addition the

length of camp varied between the elementary camp (3 days) and high school (between 6-7 days) and this may have influenced the degree of change observed in the campers by staff.

The final limitation to this study is there were no follow ups done with the youth so from the study is it unclear if the youth who developed a positive identity, social skills, physical and thinking skills and positive values through a structured outdoor camp experience, are using these skills in their daily lives or if these were temporary and the developments wore off after they returned home from camp.

### **Future studies**

This study is specific to the youth-at-risk who attended Camp Tippy Canoe in New Brunswick. Further research is needed to support and challenge these findings for this population in Canada. Future research should consider the camper's perspective, conduct additional post camp surveys at timed periods, use different types and duration of camps, and consider different moderating variables. Future studies should also be conducted to examine if different genders benefit differently from their camp experiences.

### **Recommendations**

Summer camps need to understand the importance of their role in fostering positive youth development in particular with youth-at-risk and aim to target more of this population. Investment in outdoor summer camp programs that are specifically designed for youth-at-risk will allow those who may be disempowered by their environmental circumstances a chance to benefit from summer programs that promote skill development and resilience through engagement in opportunities within safe and enriched environments. Follow up processes should be incorporated into these outdoor summer camp programs to

track the youths' development beyond summer when they are back in their home and school environments.

## Bibliography

Allen, L., Cox, J., & Cooper, N. (2006). The impact of a summer day camp on the resiliency of disadvantaged youths. *Journal of Physical Education, Recreation & Dance*, 77(1), 17-23.

American Camp Association. (2005). *Directions: The youth development outcomes of the camp experience*. Retrieved 13<sup>th</sup> February, 2015, from [www.ACAcamps.org/research/enhance/directions](http://www.ACAcamps.org/research/enhance/directions).

American Camp Association (2006). *Inspiration: developmental supports and opportunities of youths' experiences at camp*. Retrieved 13<sup>th</sup> February, 2015, from [www.ACAcamps.org/research/enhance/inspirations](http://www.ACAcamps.org/research/enhance/inspirations).

Bennett, L. W., Cardone, S., & Jarczyk, J. (1998). Effects of a therapeutic camping program on addiction recovery: The Algonquin Haymarket relapse prevention program. *Journal of Substance Abuse Treatment*, 15(5), 469-474.

Bernat, F. (2009). Youth resilience: can schools enhance youth factors for hope, optimism, and success? *Women & Criminal Justice*, 19(3), 251-266.

Branscum, P., & Sharma, M. (2012). After-school based obesity prevention interventions: a comprehensive review of the literature. *IJERPH International Journal of Environmental Research and Public Health*, 9(12), 1438-1457.

Collado, S., Staats, H., & Corraliza, J. A. (2013). Experiencing nature in children's summer camps: affective, cognitive and behavioural consequences. *Journal of Environmental Psychology*, 33(5), 37-44.

Ellis, G., & Sibthorp, J. (2006) *Development and validation of a battery of age appropriate measures for campers outcomes*. Report to the American Camp Association. University of Utah.

Ferrari, T. M., & McNeely, N. N. (2007). Positive youth development: what's camp counseling got to do with it? Findings from a study of Ohio 4-H camp counselors. *Journal of extension, 45*(2), 1-10.

Fine, S., Bialeschki, M., Browne, L., & Powell, G. (2011). *Summer camp and the advancement of global citizenship: An international study*. International Camping Fellowship and American Camp Association. Retrieved 15<sup>th</sup> January 2015, from [www.campingfellowship.org/ICF-Web/DesktopDefault.aspx?tabid=74](http://www.campingfellowship.org/ICF-Web/DesktopDefault.aspx?tabid=74).

Flynn, R. M., Richert, R. A., Staiano, A. E., Wartella, E., & Calvert, S. L. (2014). Effects of exergame play on EF in children and adolescents at a summer camp for low income youth. *Journal of educational and developmental psychology, 4*(1), 209.

Fran, N. K., Garst, B. A., Baughman, S., Smith, C., & Peters, B. (2009). Catalyzing transformation: conditions in extension educational environments that promote change. *Journal of Extension, 47*(4). <http://www.joe.org/joe/2009august/rb1.php>

Garst, B., Browne L., & Bialeschki M. (2011). Youth development and the camp experience. *New Directions for Youth Development, 2011*(130), 73-87.

Glover, T., Chapeskie, A., Mock, S., Mannel, R., & Feldberg, H. (2011). Canadian summer camp research project, phase 1 & 2. Retrieved 25<sup>th</sup> April, 2014, from <http://ccamping.org/resources/research-papers/>.

Glover, T., Chapeskie, A., Mock, S., Mannel, R., & Feldberg, H. (2013). Canadian summer camp research project, phase 3, parent's perceptions of changes in children since

returning home from camp. Retrieved 25<sup>th</sup> April 2014

from <http://ccamping.org/resources/research-papers/>.

Green, G., Kleiber, D., & Tarrant, M. (2000). The effect of an adventure-based recreation program on development of resiliency in low income minority youth. *Journal of Park & Recreation Administration*, 18(3), 76.

Hanna, N. A., & Berndt, T. J. (1995). Relations between friendship, group acceptance, and evaluations of summer camp. *Journal of Early Adolescence*, 15(4), 456-476.

Hansen, D. M., Larson, R. W., & Dworkin, J. B. (2003). What adolescents learn in organized youth activities: a survey of self-reported developmental experiences. *Journal of Research on Adolescence*, 13(1), 25-55.

Hartig, T., Kaiser, F., & Bowler, P. (2001). Psychological restoration in nature as a positive motivation for ecological behavior. *Journal of Planning Literature*, 16(2), 236-319.

Harwood, CG, Johnston, J, Minniti, A. (2013) Positive youth development in swimming: Clarification and consensus of key psychosocial assets, *Journal of Applied Sport Psychology*, 25(1), 392-411.

Henderson, K. A., & Bialeschki, M. D. (2009). People and nature-based recreation. *Leisure Sciences*, 32(1), 1-2.

Henderson, K. A., Bialeschki, M. D., & James, P. A. (2007). Overview of camp research. *Child and adolescent psychiatric clinics of North America*, 16(4), 755-767.

Henderson, K., Whitaker Scheuler, L., Bialeschki, D., Scanlin, M., & Thurber, C. (2007). Summer camp experiences: parental perceptions of youth development outcomes. *Journal of Family Issues*, 28(8), 987-1007.

Hermans, T. (Ed.). (2014). *The manipulation of literature: Studies in literary translation*. Routledge.

Hrenko, K. (2005). Remembering camp dreamcatcher: Art therapy with children whose lives have been touched by HIV/AIDS. *Journal of the American Art Therapy Association*, 22(1), 39-43.

Huebner, A. J., Walker, J. A., & McFarland, M. (2003). Staff development for the youth development professional: A critical framework for understanding the work. *Youth & Society*, 35(2), 204-225.

Hunter, H.L., Rosnov, D.L., Koontz, D., & Roberts, M. (2006). Camping programs for children with chronic illness as a modality for recreation, treatment, and evaluation: an example of a mission-based program evaluation of a diabetes camp. *Journal of Clinical Psychology in Medical Settings*, 13(1), 64-77.

Hutchison, P., Mecke, T., & Sharpe, E. (2008). Partners in inclusion at a residential summer camp: a case study. *Therapeutic Recreation Journal*, 42 (3), 181.

James, J. J., Bixler, R. D., & Vadala, C. E. (2010). From play in nature, to recreation then vocation: a developmental model for natural history-oriented environmental professionals. *Children Youth and Environments*, 20(1), 231-256.

Jones, S. M., Brown, J. L., & Lawrence Aber, J. (2011). Two-year impacts of a universal school-based social-emotional and literacy intervention: an experiment in translational developmental research. *Child Development*, 82(2), 533-554.

- Jones, M. I., Dunn, J. G. H., Holt, N. L., Sullivan, P. J., & Bloom, G. A. (2011). Exploring the '5Cs' of positive youth development in sport. *Journal of Sport Behavior, 34*(3), 250-267.
- Joselit, J. W. (1993). *A worthy use of summer: Jewish summer camping in America*. National Museum of American Jewish History.
- Kals, E., & Ittner, H. (2003). *Children's environmental identity, indicators and behavioral impacts*. The MIT Press, Cambridge, Massachusetts.
- Kegler, M. Young, K., Marshall, L., Bui, D., & Rodine, S. (2005). Positive youth development linked with prevention in a Vietnamese American community: successes, challenges, and lessons learned. *JAH Journal of Adolescent Health: Supplement, 37*(3), S69-S79.
- Kelly, K. P., & Kirschenbaum, D. S. (2011). Immersion treatment of childhood and adolescent obesity: the first review of a promising intervention. *Obesity Reviews, 12*(1), 37-49.
- Kremer, K. P., Maynard, B. R., Polanin, J. R., Vaughn, M. G., & Sarteschi, C. M. (2014). Effects of after-school programs with at-risk youth on attendance and externalizing behaviors: a systematic review and meta-analysis. *Journal of youth and adolescence, 44*(3), 616-636.
- Larson, R., Hansen, D., & Walker, K. (2005). Everybody's gotta give: development of initiative and teamwork within a youth program. In Mahoney, J., Larson, R., & Eccles, J., *Organized activities as contexts of development: Extracurricular activities, after-school and community programs*, (159-183) New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Lerner, R. M., Lerner, J. V., Almerigi, J., Theokas, C., Phelps, E., Gestdottir, S., Naudeau, S., & Von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H study of positive youth development. *Journal of Early Adolescence, 25*(1), 17-71.

Lerner, J., & Lerner, R. (2014). Creation of short and very short measures of the five Cs of positive youth development. *JORA Journal of Research on Adolescence, 24*(1), 163-176.

Mahoney, J. L., Larson, R. W., Eccles, J. S., & Lord, H. (2005). In Mahoney, J., Larson, R., & Eccles, J., *Organized activities as contexts of development: Extracurricular activities, after-school and community programs, (3-22)* New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Maynard, W. B. (1999). "An ideal life in the woods for boys": architecture and culture in the earliest summer camps. *Winterthur portfolio, 5*(3), 3-29.

Merryman, B., Mezei, B. S., Bush, J., & Weinstein M. (2012). Engagement, environment, and skill development: An exploration of the summer activity experiences of at-risk middle school youth. *The Open Journal of Occupational Therapy, 1*(1) [http://commons.pacificu.edu/sso\\_conf/2012/12abstracts/20/](http://commons.pacificu.edu/sso_conf/2012/12abstracts/20/).

Moore, V. A. (2001). "Doing" Racialized and gendered age to organize peer relations: observing kids in summer camp. *Gender & Society, 15*(6), 835-858.

Moore, K. A., & Lippman, L. H. (2006). What do children need to flourish?: Conceptualizing and measuring indicators of positive development. Springer Science & Business Media, 3(1).

Outward bound. (2014). Our Research. Retrieved 12 February 2015, from <http://www.outwardbound.ca/getText.asp?type=Pages&ID=101>.

Partners For Youth. (2015). Programs. Retrieved 15<sup>th</sup> April 2015, from <http://www.partnersforyouth.ca/en/programs/>.

Phelps, E., Zimmerman, S., Warren, A. E. A., Jeličić, H., von Eye, A., & Lerner, R. M. (2009). The structure and developmental course of positive youth development (PYD) in early adolescence: Implications for theory and practice. *Journal of Applied Developmental Psychology, 30*(5), 571-584.

Public Safety Canada. (2012) Youth at risk development. Retrieved 15<sup>th</sup> December 2015, from <http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/yth-rsk-dvlpmnt/yth-rsk-dvlpmnt-eng.pdf>.

Riddick, C. A., & Schaller, G. R. (2005). Summer camp and self-esteem of school-age inner city children. *Perceptual and motor skills, 101*(1), 121-130.

Riddick, C & Russell, R. (2008) *Research in recreation, parks and tourism* (2ed.). Champaign, IL: Sagamore Publishing.

Roth, J., Brooks-Gunn, J., Murray, L., & Foster, W. (1998). Promoting healthy adolescents: Synthesis of youth development program evaluations. *Journal of Research on Adolescence, 8*(4), 423-459.

Sibthorp, J., Bialeschki, M. D., Morgan, C., & Browne, L. (2013). Validating, norming, and utility of a youth outcomes battery for recreation programs and camps. *Journal of Leisure Research, 45*(4), 514.

Sibthorp, J., Browne, L., & Bialeschki, M. D. (2010). Problem solving and camp connectedness: two new measures for the ACA youth outcomes battery. *Research on Education in the Outdoors, 10*(1), 1-12.

Skiar, S.L., Andreson, S.C., & Autry, C.E. (2007). Positive youth development: a wilderness intervention. *Therapeutic Recreation Journal, 41, 3*, 223-243.

Smith, E., Steel, G., & Gidlow, B. (2010). The temporary community: student experiences of school-based outdoor education programmes. *Journal of Experiential Education, 33*(2), 136-150.

Spencer, R., Jordan, J. V., & Sazama, J. (2004). Growth-promoting relationships between youth and adults: a focus group study. *Families in Society: The Journal of Contemporary Social Services, 85*(3), 354-362.

Stallard, P. (2006). Psychological interventions for post-traumatic reactions in children and young people: a review of randomized controlled trials. *Clinical Psychology Review, 26*(7), 895-911.

Stallard, P., Simpson, N., Anderson, S., Carter, T., Osborn, C., & Bush, S. (2005). An evaluation of the FRIENDS programme: a cognitive behaviour therapy intervention to promote emotional resilience. *Archives of Disease in Childhood, 90*(10), 1016-1019.

Thurber, C. A., Scanlin, M. M., Scheuler, L., & Henderson, K. A. (2007). Youth development outcomes of the camp experience: evidence for multidimensional growth. *Journal of Youth and Adolescence, 36*(3), 241-254.

Van Slyck, A. A. (2002). *Kitchen technologies and mealtime rituals: interpreting the food axis at American summer camps, 1890-1950*. Minnesota: University of Minnesota Press.

Ventura, A. K., & Garst, B. A. (2013). Residential summer camp: a new venue for nutrition education and physical activity promotion. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(1), 1-9.

Vincke, J., & van Heeringen, K. (2004). Summer holiday camps for gay and lesbian young adults: An evaluation of their impact on social support and mental well-being. *Journal of Homosexuality*, *47*(2), 33-46.

Yuen, F. C., Pedlar, A., & Mannell, R. C. (2005). Building community and social capital through children's leisure in the context of an international camp. *Journal of Leisure Research*, *37*(4), 494-518.

## Appendix 1- Observational Survey



### Observation Survey

Please fill out the following information about the camper this survey is describing. If you are unsure of specific answers, please indicate “unknown” or ask the researcher for information that may help you answer the question more accurately. Use only information and impressions derived from your observations of the youth at camp.

1. How old does this camper appear to be? \_\_\_\_\_
  
2. What sex is this camper? (Please circle your response)  
a. Male b. Female
  
3. To your knowledge, has this camper attended this camp before? (Please circle your response)  
a. Yes b. No
  
4. What is this camper’s first language? (Please circle your response)  
a. French      b. English      Other: \_\_\_\_\_

5. Does this camper have any special needs? (Please circle your response)

a. No    b. Yes

If "yes", please explain: \_\_\_\_\_

**Section A: Social connections at camp**

In this section of the survey we are asking you about the camper’s friendships and his or her other social connections during the reporting period. We are interested in how many friendships the camper has developed, the nature of these friendships and how much support he or she receives from others at camp. Do your best to answer the questions. If it is not possible to answer a question, however, please leave it blank.

1. How many friends does the camper have in his/or her counsellor group?

a) First 48 hours: \_\_\_\_\_

b) End of camp: \_\_\_\_\_

(number)

(number)

| <b>2. Please indicate the extent to which you agree with the following statements:</b>    | <b>Very Strongly Disagree</b> | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Strongly Agree</b> | <b>Very Strongly Agree</b> |
|---|-------------------------------|--------------------------|-----------------|----------------|--------------|-----------------------|----------------------------|
| A. The camper has a group of close friends at camp from which he or she can draw support. |                               |                          |                 |                |              |                       |                            |
| B. The camper has friends at camp besides   |                               |                          |                 |                |              |                       |                            |

|   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| those in his/her Counselor group.   |  |  |  |  |  |  |  |
| C. The camper befriends other campers different from him/herself.                       |  |  |  |  |  |  |  |
| D. The camper befriends other campers similar to him/herself.                           |  |  |  |  |  |  |  |
| E. When needed, the camper receives emotional support from his/her fellow campers.      |  |  |  |  |  |  |  |
| F. When needed, the camper receives other kinds of support from his/her fellow campers. |  |  |  |  |  |  |  |
| G. This camper gives to other   |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| campers as much as he/or she receives from them.   |  |  |  |  |  |  |  |
| H. This camper exhibits a sense of pride about being a member of his/her counsellor group. |  |  |  |  |  |  |  |
| I. This camper exhibits a sense of pride about being a member of his/her camp.             |  |  |  |  |  |  |  |
| J. This camper resolves personal conflicts in a positive manner.                           |  |  |  |  |  |  |  |
| K. This camper gets along with other campers.  |  |  |  |  |  |  |  |
| L. This camper gets along with camp staff.   |  |  |  |  |  |  |  |

**Section B: Environmental Awareness**

In this section, we are assessing the camper’s awareness of environmental issues and his/her impact on the environment.

| <b>3. Please indicate the extent to which you agree with the following statements:</b> | Very Strongly Disagree | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Very Strongly Agree |
|--|------------------------|-------------------|----------|---------|-------|----------------|---------------------|
| A. This camper shows an awareness of his/her impact on the environment.                |                        |                   |          |         |       |                |                     |
| B. This camper demonstrates behaviours that are environmentally friendly.              |                        |                   |          |         |       |                |                     |
| C. This camper demonstrates that he/she cares about the environment.                   |                        |                   |          |         |       |                |                     |
| D. This camper thinks we should all take care of the planet.                           |                        |                   |          |         |       |                |                     |
| E. This camper   |                        |                   |          |         |       |                |                     |

|                               |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|
| enjoys being in the outdoors. |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|

**Section C: Self Confidence and Personal Development**

In this section, we are interested in the degree of personal growth and self-confidence the camper is showing.

| <b>4. Please indicate the extent to which you agree with the following statements:</b> | <b>Very Strongly Disagree</b> | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Strongly Agree</b> | <b>Very Strongly Agree</b> |
|--|-------------------------------|--------------------------|-----------------|----------------|--------------|-----------------------|----------------------------|
| A. This camper appears to be confident in him/herself.                                 |                               |                          |                 |                |              |                       |                            |
| B. This camper needs help with most things he/she does.                                |                               |                          |                 |                |              |                       |                            |
| C. This camper appears to do fine without his/her parents.                             |                               |                          |                 |                |              |                       |                            |
| D. This camper is good at doing things on his/her own.                                 |                               |                          |                 |                |              |                       |                            |
| E. This camper makes good decisions.   |                               |                          |                 |                |              |                       |                            |

|   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| F. This camper likes to try new things                                    |  |  |  |  |  |  |  |
| G. This camper has an accurate understanding of his/her personal limits . |  |  |  |  |  |  |  |
| H. This camper appears to feel good about him/herself                     |  |  |  |  |  |  |  |

**Section D: Emotional Intelligence**

In this section, we are interested in the extent to which the camper displays an understanding of his/her own emotions as well as those of others around him/her. *Please reflect upon the camper’s age and what would be considered an age appropriate level of development in this area prior to completing this section.*

| <b>5. Please indicate the extent to which you agree with the following statements:</b> | <b>Very Strongly Disagree</b> | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Strongly Agree</b> | <b>Very Strongly Agree</b> |
|--|-------------------------------|--------------------------|-----------------|----------------|--------------|-----------------------|----------------------------|
| A. This camper displays an awareness of his/her emotions as he/she                     |                               |                          |                 |                |              |                       |                            |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| experiences them.  |  |  |  |  |  |  |  |
| B. This camper likes to share his/her emotions with others him/herself.              |  |  |  |  |  |  |  |
| C. This camper seeks out activities that make them happy.                            |  |  |  |  |  |  |  |
| D. This camper is aware of the non-verbal messages he/she sends to others.           |  |  |  |  |  |  |  |
| E. This camper presents him/herself in a way that makes a good impression on others. |  |  |  |  |  |  |  |
| F. This camper has control over his/her emotions.                                    |  |  |  |  |  |  |  |
| G. This camper is sensitive to the feelings and emotions                             |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| of others.   |  |  |  |  |  |  |  |
| H. This camper compliments others when they have done something well.                    |  |  |  |  |  |  |  |
| I. This camper helps others feel better when they are down.                              |  |  |  |  |  |  |  |
| J. This camper uses good moods to help him/herself keep trying in the face of obstacles. |  |  |  |  |  |  |  |

**Section E: Physical Activity**

In this final section, we are interested in the extent to which the camper enjoyed participating in physical activities both in general and relating to specific activities. If an activity listed is not offered at your camp, please indicate N/A (not applicable).

| 6. Please indicate the extent to which you agree with the following statements: | Very Strongly Disagree | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Very Strongly Agree |
|---|------------------------|-------------------|----------|---------|-------|----------------|---------------------|
| A. When given a choice this camper always chooses physical activities.          |                        |                   |          |         |       |                |                     |
| B. This camper has a positive attitude toward physical activity.                |                        |                   |          |         |       |                |                     |
| C. This camper has a positive attitude toward sports.                           |                        |                   |          |         |       |                |                     |
| D. This camper has a positive attitude toward active games.                     |                        |                   |          |         |       |                |                     |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| E. This camper has a positive attitude toward walking.   |  |  |  |  |  |  |  |
| F. This camper has a positive attitude toward active play with other children (if age appropriate) |  |  |  |  |  |  |  |
| G. This camper is physically active.   |  |  |  |  |  |  |  |

**Unusual Circumstances**

Please describe any reasons why your answers noted on this survey might be out of the ordinary for this camper during either of the reporting periods (e.g., camp-wide activities such as “capture the flag”, inclement weather, illness, out-trip or field trip).

| Reporting period affected (1 <sup>st</sup> or 2 <sup>nd</sup> ) | Circumstances (i.e. canoe trip) | Impact on results (i.e. did not participate in usual activities) |
|---|---------------------------------|--|
|   |                                 |  |

**Thank you for your time!**

## Appendix 2- Camp Staff Form



Dear Camp Staff,

You are invited to assist with a study which seeks to observe campers while they are at camp with the intention of measuring the impacts of their participation in the program. The study will help document the benefits of summer camp to youth at risk. Because you are a counsellor at Camp Tippy Canoe, I welcome your participation in helping with this study. The study is part of the requirements for my Master's degree.

Participation in the study is completely voluntary. Should you agree to participate, it would involve you completing two short observation reports documenting each child's general behaviour patterns and attitudes with regard to topics such as environmental awareness and physical activity. This is an observational study alone. You are not required (or permitted) to base your responses on confidential information derived from a camper's file or your knowledge of his or her personal background, and you are requested not to ask direct questions or stage interventions for the purpose of collecting data for the study. The study will not include any identifying information that would link you to the observations. Any decision you make regarding participation – whether to participate, not participate, or withdraw from the project at any point – will have no impact on your standing as a camp counsellor with Partners for Youth. **If you agree to participate in this study by assisting with data collection AND if you agree to hold confidential any information that you collect for this study, please sign below.** NOTE: This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2014-62. If you have any questions or concerns resulting from your participation in this study, you may contact DR. Steven Turner, Chair of the REB at (506) 453-5189 or [ETHICS@unb.ca](mailto:ETHICS@unb.ca). You may also contact Dr. Cynthia Stacey, the Faculty Supervisor of this study (506) 453-5062 or [cstacey@unb.ca](mailto:cstacey@unb.ca).

I agree to assist with the data collection for this study:

Participant Name: \_\_\_\_\_

Signature : \_\_\_\_\_

Date: \_\_\_\_\_

Thank you for your assistance with this project.

Tom Carney

Graduate Student, Faculty of Kinesiology

[tcarney@partnersforyouth.ca](mailto:tcarney@partnersforyouth.ca)

### Appendix 3- Mean score tables for results

The following tables (1, 2, 3, 4, 5) show the means scores for gender in each of the 5 areas:

Table 1 Mean scores for the difference in total scores for social connections and integration T1 and T2 between males and females:

|         | N   | Mean   | Std. Deviation |
|---------|-----|--------|----------------|
| Males   | 58  | 3.7759 | 3.14025        |
| Females | 44  | 3.8636 | 3.57375        |
| Total   | 102 | 3.8137 | 3.31731        |

Table 2 Mean scores for the difference in total scores for environment awareness T1 and T2 between males and females:

|        | N   | Mean   | Std. Deviation |
|--------|-----|--------|----------------|
| Male   | 58  | 1.0690 | 1.18265        |
| Female | 44  | .9091  | 1.15775        |
| Total  | 102 | 1.0000 | 1.16890        |

Table 3 Mean scores for the difference in total scores for self-confidence and personal development T1 and T2 between males and females:

|        | N   | Mean   | Std. Deviation |
|--------|-----|--------|----------------|
| Male   | 58  | 2.1552 | 1.85247        |
| Female | 44  | 2.0227 | 2.11845        |
| Total  | 102 | 2.0980 | 1.96257        |

Table 4 Mean scores for the difference in total scores for emotional intelligence T1 and T2 between males and females:

|        | N   | Mean   | Std. Deviation |
|--------|-----|--------|----------------|
| Male   | 58  | 3.0517 | 2.50209        |
| Female | 44  | 3.0227 | 2.88934        |
| Total  | 102 | 3.0392 | 2.66225        |

Table 5 Mean scores for the difference in total scores for physical activity attitudes T1 and T2 between males and females:

|        | N   | Mean  | Std. Deviation |
|--------|-----|-------|----------------|
| Males  | 58  | .8966 | .96772         |
| Female | 44  | .9091 | 1.05253        |
| Total  | 102 | .9020 | 1.00010        |

The following tables (6, 7, 8, 9, 10) show the means scores for returning campers and new campers in each of the 5 areas:

Table 6 Means scores for the difference in total scores for social connections and integration T1 and T2 between returning campers and new campers:

|                  | N   | Mean   | Std. Deviation |
|------------------|-----|--------|----------------|
| Returning Camper | 64  | 3.2656 | 3.06150        |
| New Camper       | 38  | 4.7368 | 3.56169        |
| Total            | 102 | 3.8137 | 3.31731        |

Table 7 Mean scores for the difference in total scores for environmental awareness T1 and T2 between returning campers and new campers:

|                  | N   | Mean   | Std. Deviation |
|------------------|-----|--------|----------------|
| Returning Camper | 64  | 1.0625 | 1.21988        |
| New Camper       | 38  | .8947  | 1.08527        |
| Total            | 102 | 1.0000 | 1.16890        |

Table 8 Mean scores for the difference in total scores for self-confidence and personal development T1 and T2 between returning campers and new campers:

|                  | N   | Mean   | Std. Deviation |
|------------------|-----|--------|----------------|
| Returning Camper | 64  | 1.9219 | 2.08779        |
| New Camper       | 38  | 2.3947 | 1.71700        |
| Total            | 102 | 2.0980 | 1.96257        |

Table 9 Mean scores for the difference in total scores for emotional intelligence T1 and T2 between returning campers and new campers:

|                  | N   | Mean   | Std. Deviation |
|------------------|-----|--------|----------------|
| Returning Camper | 64  | 3.0625 | 2.37630        |
| New Camper       | 38  | 3.0000 | 3.11925        |
| Total            | 102 | 3.0392 | 2.66225        |

Table 10 Mean scores for the difference in total scores for physical activity attitudes T1 and T2 between returning campers and new campers:

|                  | N   | Mean  | Std. Deviation |
|------------------|-----|-------|----------------|
| Returning Camper | 64  | .9375 | 1.00593        |
| New Camper       | 38  | .8421 | 1.00071        |
| Total            | 102 | .9020 | 1.00010        |

The following tables (11, 12, 13, 14, 15) show the means scores for age frequencies in all five areas:

Table 11 Mean scores for the difference in total scores for social connections and integration scores T1 and T2 between age frequencies:

|  | Age   | N  | Mean   | Std. Deviation |
|--|-------|----|--------|----------------|
| Difference in total score from integration and citizenship T1 and T2 | 10-11 | 14 | 4.0714 | 4.02806        |
|  | 12-14 | 77 | 3.5714 | 3.21358        |
|  | 15-17 | 11 | 5.1818 | 2.99393        |

Table 12 Mean scores for the difference in total scores for environmental awareness scores T1 and T2 between age frequencies:

|  | Age   | N  | Mean   | Std. Deviation |
|--|-------|----|--------|----------------|
| Difference in total score from environmental T1 and T2 | 10-11 | 14 | .7857  | .80178         |
|  | 12-14 | 77 | .9351  | 1.11612        |
|  | 15-17 | 11 | 1.7273 | 1.67874        |

Table 13 Mean scores for the difference in total scores for self-confidence and personal development scores T1 and T2 between age frequencies:

|   | Age   | N  | Mean   | Std. Deviation |
|---|-------|----|--------|----------------|
| Difference in total score from self-confidence and personal development T1 and T2 | 10-11 | 14 | 1.9286 | 2.26900        |
|   | 12-14 | 77 | 2.0260 | 1.95323        |
|   | 15-17 | 11 | 2.8182 | 1.60114        |

Table 14 Mean scores for the difference in total scores for emotional intelligence scores T1 and T2 between age frequencies:

|  | Age   | N  | Mean   | Std. Deviation |
|--|-------|----|--------|----------------|
| Difference in total score from emotional T1 and T2 | 10-11 | 14 | 3.0714 | 3.24545        |
|  | 12-14 | 77 | 2.7403 | 2.56701        |
|  | 15-17 | 11 | 5.0909 | 1.57826        |

Table 15 Mean scores for the difference in total scores for physical activity attitudes scores T1 and T2 between age frequencies:

|  | Age   | N  | Mean   | Std. Deviation |
|--|-------|----|--------|----------------|
| Difference in total score from physical activity attitudes T1 and T2 | 10-11 | 14 | .9286  | .91687         |
|  | 12-14 | 77 | .8571  | 1.02231        |
|  | 15-17 | 11 | 1.1818 | .98165         |

## **Curriculum Vitae**

**Candidate:** Thomas Carney

**Masters of Arts, Sports and Recreational Studies (2015)**  
University of New Brunswick Fredericton, New  
Brunswick

**Bachelor of Arts with Honors, Sport Development and Physical Education (2010)**  
Liverpool John Moores University  
Liverpool, UK

### **Conference Presentation:**

“Investigating Parental Influences on First Nation Children’s Participation in Sport and Organized Physical Recreation in New Brunswick.” Presented at the *University of New Brunswick Graduate Student Association’s 2011 Graduate Research Conference*, Fredericton, New Brunswick