

THE BENEFITS OF CAMP

The Benefits Of Camp:
Necessity of the Outdoors and Community in the Digital Age

by

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THE BENEFITS OF CAMP

Abstract

In today's culture, one of the biggest challenges is people spending less time outside, and less time with people face-to-face (SHAPE America, 2016; Monke, 2015; Coon, 2011). In this age where technology is of growing importance, places where children can spend time outdoors, such as summer camp, are even more vital to their growth and well-being (Louv, 2005). Existing camp research and trends, coupled with the outdoor setting, have been shown to have positive impacts on youth development (Chawla, 2015). This study explores the need for research to help improve the camp experience from the child's perspective. The purpose of this study is to examine how camp's natural setting and community impacts the youth experience. The research questions are: 1) How spending time in the outdoors is valuable, and 2) what is the summer camp experience impact on children's developmental skills. The methods include a pre- and post-survey administered to campers during the summer of 2017. The surveys measured campers' self reported progress during the camp session based on four measures of youth development from the ACA Youth Outcomes Battery: teamwork, community, affinity for nature, and responsibility. Results showed improvements in boys' affinity for nature, but no significant changes for female campers. However, this may be a reflection of the short length of camp sessions and reflection time, revealing the need for more research from the youth perspective to maximize developmental benefits.

THE BENEFITS OF CAMP

Introduction

My sister positioned herself at the top of the trail and adjusted her helmet. She is tall for her age, but even so, her bike seems too big in contrast with her small nine year old frame. She looked down the trail at the stairs with fierce determination, and I briefly wonder if this mountain bike lesson would end in a crash. She was just one example of the hundreds of campers that came to that particular corner of western North Carolina that summer for camp. I had been working as assistant program director and head of mountain biking at a residential girls camp, so I was able to create close relationships with the campers and see firsthand the effects of camp. In my mountain bike lessons, very few campers were overly confident, and in fact some were fearful of biking in general. However, as we worked our way up in the lessons and gradually learned how to safely ride more difficult terrain, I saw the confidence and pride grow in the campers as they learned skills and tackled fears.

My sister had been excited about practicing mountain biking back when she signed up for the camp session, and after days of riding the trails, she had come to me determined to learn how to ride stairs. We got out her bike, walked to the edge of the stairs, and I demonstrated how to ride down them. All of her hesitation dissipated and she eagerly told me she was ready. I look back at my sister at the top of the trail, reminded her to cover her brakes and keep her weight back, and then told her to try the stairs whenever she's ready. She pushes off, concentrating hard on her body position and speed, and glides down the stairs with ease. She comes to a stop at the bottom and jumps off her bike, beaming. The pride and elation in her face reminded me of similar experiences I had in the camp setting when growing up, and how my own experiences shaped my current hobbies and attitude about

THE BENEFITS OF CAMP

myself. My sister glows with excitement and rushes off to write a letter home about her accomplishments. This was just one instance at camp where I witnessed my sister gaining a physical skill, and at the same time gaining emotional skills like confidence and pride that are necessary to try new things and be her best self.

It was a unique experience being able to share these moments with my sister in a residential camp setting, but her experiences were not unique as a camper. Campers get the opportunity to try new things and learn skills they did not think possible at camp (Monke, 2015; Garst et al. 2011; Sekine, 1994), especially if their setting at home is too urban to spend time outdoors (Allen et al. 2006). Camp provides a location and experience unlike school and home where campers are able to test themselves, participate in a community, gain independence, and spend every day in the outdoors (ACA, 2005). Residential camp has also been shown to improve community action, problem solving, empowerment, independence, and affinity for nature (Browne, Garst, and Bialeschki 2011). Research tells us that time in natural spaces encourages imaginative play, promotes concentration, motivation, and relieves stress (Chawla, 2015; James et al. 2010; Bialeschki et al. 2007)

Despite this, current trends show that people do not spend enough time outside (Coon et al. 2011; Louv, 2005; Wells & Lekies, 2006, SHAPE America, 2016; Ginsburg, 2006), which is especially important for the child, both for ensuring developmental benefits as well as fostering an appreciation of the outdoor world for future environmentalism (Schusler & Krasny, 2010; Chawla, 2007; Wells & Lekies, 2006; Bixler, 1997). There has been much recent talk on the excessive amount of pollution and deforestation facing our planet (Coon et al. 2011; Measham, 2006; Orr, 2004). It is hard to believe that this is not linked to the decline

THE BENEFITS OF CAMP

in time spent outdoors, because how can people be expected to protect what they do not love? With the majority of children spending their free time playing inside on a TV screen or monitor, the next generation is not fostering that affinity for nature necessary for protecting the outdoors, not to mention they are missing out on all the benefits of time spent outside. When campers spend time in nature as children, it improves their affinity for nature and frequency of environmental action as they grow up (Schusler & Krasny, 2010). There is a problem with youth spending too much time playing indoors (Hofferth & Sandberg, 2001) and not enough time in exploratory outdoor play and challenge (James, Bixler, & Vadala, 2010). Camp not only fills this need, but also provides a community setting for face to face peer interaction without the distraction of technology and social media that children are often surrounded by at home.

The most fulfilling part of my job at summer camp was being able to see the growth of campers during the length of a session, socially, physically, and emotionally. I was able to be a part of something that I believed in, and share an experience that had been crucial to my own development at their age. Environments at school and home have tried to replicate the benefits of spending time in the outdoors (Monke, 2015; Uhls, 2014; Maas et al. 2009; Wells & Lekies, 2006; Louv, 2005; Orr, 2004; Montessori, 1967), most notably with the No Child Left Inside Act that encourages funding and includes environmental education in the public-school curriculum (S.1306, 2013). However, the Act has been criticized for having too much of a political agenda, and though helpful, these measures have not been enough to encourage the community and outdoor experiences that match those found at camp. I believe that due to the immersive community and outdoor setting, camp is one of the best places for

THE BENEFITS OF CAMP

youth to gain key social, emotional, and physical developments while gaining the independence and resiliency they crave away from home.

Camp allows children to confront the sometimes challenging process of growing up, but does so in a supportive community where they can explore the world around them and learn about themselves. Not only does the outdoor setting and close community of people in camp offer the emotional benefits previously mentioned, the outdoor setting also promotes physical health. Separation from nature has shown to negatively affect rates of obesity, ADD diagnoses, depression, and other health problems (Rigolon, 2017; Ginsburg, 2006; Louv, 2005). In contrast, time spent outside has not only alleviated those issues in affected children, but has also shown reduced rates of respiratory diseases and asthma, allergies, and emotional problems (Chawla 2015; Monke, 2015). If camp is the an ideal place for youth development in such a digital age however, why is society not prioritizing this outdoor experience?

Camp is undervalued and under-researched, with the majority of camp research being from the parent and staff point of view rather than the campers'. For example, the American Camp Association conducted national research on the benefits of the camp experience, using self-reported data from over 5000 families in 2005 (Directions, 2005). However, over the nearly 15 years since that research, much has changed among both camps and youth and they have not published an updated national report of the same scale since. The American Camping Association (ACA) has been prioritizing camp research as a way to provide measurable evidence of the long term benefits for campers. Recently, ACA kicked off a five year research project, Research 360, of which the exploratory phase has just been completed. However, research is both time consuming and expensive, which has slowed the

THE BENEFITS OF CAMP

accumulation of results, especially in an industry without much historical focus on research. More camps need to participate in research individually as well as through the national level with ACA, in order to gather more data that will allow for continual improvement and growth measurement. In this study, I will make a case for the need for more research to help improve the camp experience and provide evidence for its benefits, analyze the existing camp research and outdoor trends, and describe a study conducted on youth development by the author. I do this by first reviewing the literature on youth development gained through nature and camp and a background of previous studies; explain my data collection process and analysis, and finally conclude with policy and research suggestions for the future. The purpose is to demonstrate the benefits of camp and the need for greater prioritization of camp research by analyzing themes of youth development, the importance of the outdoors, and the value of the camp setting.

Literature Review

Benefits of nature in the digital age

As previously stated, in today's culture people spend less time outside, and less time with people face-to-face (SHAPE America, 2016; Monke, 2015; Coon, 2011; Louv, 2005; Orr, 2004). These are two important aspects to humanity, and we should focus not only on retaining people-skills but also fostering love for nature daily. Without knowledge of nature or communication skills, we would be missing core parts of what make us who we are as natural beings (Driver, B.L., Dustin, D., Baltic, T., Elsner, G., Peterson, G., 1996). Even so,

THE BENEFITS OF CAMP

policy-makers have not supported outdoor play or time spent in nature as part of youth development. The Center on Education Policy at George Washington University found that 62% of schools had increased the amount of time spent on English and math, while 44% had reduced time in other subjects, including recess (McMurrer, 2007). Though the American Academy of Pediatrics released a policy statement in 2013 stating that “recess is a necessary break in the day for optimizing a child’s social, emotional, physical, and cognitive development,” schools are still reducing or removing recess and the opportunity for outdoor play from the curriculum. Only 16% of states require recess for elementary schoolers (SHAPE America, 2016).

With such an emphasis on technology and screen time in society, there is concern that youth are losing social skills and the ability to communicate face to face (Gentile, Berch, Choo, Khoo, & Walsh, 2017; Louv, 2005). A study on the risk factors for children with TV and media access in their bedroom found that the increased screen time availability caused children to neglect key hours spent sleeping and reading, lowered school performance, and increased risk of obesity (Gentile et al. 2017). One shocking measurement found that the average 8-18 year old American will spend upwards of 50 hours a week watching screens and “media multi-tasking” (Rideout, Foehr, & Roberts, 2010). Most of this time is spent watching TV (31 hours and 20 minutes a week) or spending another 8 hours and 30 minutes playing the video game consoles that over half of children 8 years and older have in their bedrooms (Rideout, Foehr, & Roberts, 2010). All of this time spent consuming media takes away from hobbies, sports, school work, and social interaction that is formative for children.

THE BENEFITS OF CAMP

In *Last Child in the Woods*, Richard Louv coined the term “nature deficit disorder” to describe the detachment from the natural world and the resulting negative effects of the so-called digital age (2005). The digital age began in the 1970s with technology advancements, but grew rapidly with the invention of the World Wide Web in 1990 (History.com, 2010). The internet evolved through many stages, first inspired by the need to communicate without wires during the Cold War. In 1969 ARPAnet sent the first short message from computer to computer via packet-switching. In the 1970s, Vinton Cerf created “Transmission Control Protocol” and later “Internet Protocol” (TCP/IP) to allow networks to communicate globally. This created a network for communicating files, but it wasn’t until 1991 that Tim Berners-Lee transformed this into the “web” that can be used by anyone (History.com, 2010).

As the World Wide Web began to be seen as a platform for commercial purposes, it continued evolving and growing. Social networking sites began to be created as an informal method of communication and networking between friends. Today, the internet is a normal part of our lives and we can hardly picture life without our smartphones and computers. The internet is entertaining, useful, convenient, and connecting. Though these advances in technology can be beneficial, an excess of anything can be bad. Surfing the web or instant messaging friends are too often the favorite pastimes of children today, affecting their play and communication.

Criticisms against the latest generation claim that children who grew up in the “net generation” are overly sheltered and indulged by parents who protect them from any physical or outdoor risk. Handheld devices are said to be an occasional crutch for navigating the

THE BENEFITS OF CAMP

sometimes uncomfortable social, physical, and educational factors in the real world (Walter 2013). This creates a social development problem when children are used to communicating through screens more than they are face-to-face. This neglects the advantages of communicating in person, such as learning body language, social cues, engagement, gaining trust, and preventing misunderstandings. It also reveals a current imbalance in digital use as social beings.

Protecting children from the perceived physical dangers of the outdoor world also harms them in deeper ways by “protecting” the body but ignoring the soul (Schultz et al. 2007; Driver, et al. 1996). Separation from nature is separating us from a crucial part of the human experience – humans are a part of nature and should not be kept separate from the sum of its parts. Medically, separation from nature has also shown to negatively affect rates of obesity, ADD diagnoses, depression, and other health problems (Rigolon, 2017; Ginsburg, 2006; Louv 2005).

A study done on the accessibility and benefits of parks for youth found that the health of children varied based on their proximity and use of park spaces (Rigolon, 2017). Even access to parks contributed to healthier weights and higher physical activity trends in children. However, just as accessibility to camp is limited for low-income families due to its’ cost, access to green spaces is also unequal based on socioeconomic status (Wen, M., Zhang, X., Harris, C. D., Holt, J. B., & Croft, J. B. 2013). A study on the spatial disparities between green spaces and areas with low socioeconomic status in the U.S. found that poverty had a negative relationship with distance to parks in urban areas, especially in minority communities (Wen, M. et al. 2013). Additionally, lower income urban areas have a

THE BENEFITS OF CAMP

disproportionately higher proximity to industrial plants and highways, exposing youth to more asthma and cancer risks from emissions (Strife, S., & Downey, L. 2009). Poverty had a positive relationship with distance to green spaces in rural areas, however, access to parks was problematic with limited transportation options in the countryside (Wen, M. et al. 2013). This suggests how society thinks of green spaces and areas for outdoor play as privileges, not needs.

Though class difference may decrease the screen-time for youth who can't afford personal televisions and cell phones, time spent outside may still be affected by perceived safety in an area. There is a higher risk of violence and crime for youth in urban areas, prompting parents to keep kids indoors instead of letting them outside alone (Strife, S., & Downey, L. 2009). This gives even more reason for camp to exist as an opportunity to give urban youth a chance to play and explore in an outdoor setting, while giving structure and community to rural youth that may have green space access but live in an isolated setting. Rather than being seen as a privilege, there should have more accessible camp options available to supplement youth development in a time where children's access to green spaces is already limited.

Camp Background

Summer camp has always been marketed as an alternative experience for youth to escape their everyday routines and learn new skills. The first American camps were started in the late 1800s to "save youth" from an increasingly industrialized world that they feared would keep youth from building character or spending time outdoors. These early camps

THE BENEFITS OF CAMP

were focused more on survival skills and civic character building. In 1900, there were hardly 100 camps in America, but less than 20 years later that number grew to over 1000 (Gershon, 2016). Camp was a safe haven during the World Wars, and in post-war times, camp is still seen as an idealized setting for youth to have a safe place to grow and learn outside of school and the home. Today, over 14,000 camps are in operation across the country, 8,400 of which are residential (2017, ACA Sites, Facilities, Programs Report). Over 14 million campers attend these camps (2013 ACA Camp Compensation and Benefits Report), making this industry hugely influential. Yet, despite the enormous impact summer camp has on our youngest generations, there is still research lacking in this field.

In 2005, the American Camp Association (ACA) organized the largest national research study ever conducted on camper outcomes. Over 5000 families and 80 camps took part, made possible by a grant from Lilly Endowment Inc. This study was groundbreaking not only in size, but also because the study went to campers directly, not just their parents and counselors, to understand their perspective on the camp experience. Their results were published as *Directions*, which showed that camp was significantly beneficial to the education and developmental growth of campers, especially among positive identity, social skills, physical and thinking skills, and positive values & spirituality (Burkhardt et al. 2005).

Though the study was published in 2005, the data was collected over the summers of 2002 and 2003, making this study almost 15 years old. In such a great amount of time, much can change and further testing is overdue. *Directions* was unique in the fact that it contained some data that was self-reported from campers. Very few research is done from the campers' perspective, which should be changed so we are not ignoring a huge respondent base and

THE BENEFITS OF CAMP

wealth of information. Despite the *Directions* study showing such impressive growth in their results, camp has not been pushed to the forefront as an educational and developmental experience.

A more recent study was conducted by the ACA in 2015 that measured direct responses from the campers, but it only looked at the growth of social skills and happiness, not all four of the previous developmental aspects that ACA measured in 2005 (Monke 2015). A comprehensive study using the YOB was also performed in 2013 by Sibthorp, Morgan, & Browne, analyzing 3,750 camper responses across 37 camps. However, the main purpose of this research was “to further assess the evidence of validity and reliability of the YOB,” not necessarily to measure development in youth. There is a lack of research in this field that calls for more attention and prioritization. By increasing the amount of research for youth development in camps, intentional programming can be tailored and added to the camp experience to improve youth benefits.

Youth Developments at Camp

In this age where technology is of growing importance, places where children can spend time outdoors, such as summer camp, are even more vital to their growth and well-being (Chawla, 2015; Monke, 2015; James et al. 2010; Bialeschki and Henderson, 2007). Studies have found even five days at a nature camp without technology resulted in post-test improvements in teens’ recognition of facial emotion during face-to-face communication (Uhls, Y. T., Michikyan, M., Morris, J., Garcia, D., Small, G. W., Zgourou, E., & Greenfield, P. M. 2014). Camps serve over 14 million children a year (2013 ACA

THE BENEFITS OF CAMP

Camp Compensation and Benefits Report), which is a great opportunity for impact on the outdoor experience of the next generation. Those who attend camp live in close quarters and are able to form bonds with their cabin mates, especially during the extended sessions that range from 1 to 8 weeks (Garst, Browne, & Bialeschki, 2011). The natural and often rustic setting of camp allows campers to be immersed in the natural world, unplugged from the normal amounts of technology usage. This is key for social development and allows youth to grow and challenge themselves without pressure or comparison through social media (Garst, Browne, & Bialeschki, 2011). Camp creates a unique setting for youth with an emphasis on both community and nature that is not replicated in many other youth development experiences.

Attending summer camp is a life investment, with benefits lasting long after campers have stopped attending. Alumni continue to report skill development gained from camp experiences, especially in critical thinking (Garst, Gagnon & Whittington 2016). Camp also helps to develop more community minded citizens for the future through its' setting and programming (Browne, Garst, and Bialeschki 2011). Experiencing nature in a socially supportive and natural environment is formatively important (Chawla, 2007), even though informal interactions like play and recreation seem mundane.

Summer camps include intentional programming to benefit positive youth development (Henderson, K. A., Thurber, C. A., Whitaker, L. S., Bialeschki, M. D., & Scanlin, M. M. 2006). The framework of experiential learning teaches life skills necessary for success in the future. The National Collaboration for Youth Members defines youth development as “a process which prepares young people to meet the challenges of

THE BENEFITS OF CAMP

adolescence and adulthood through a coordinated, progressive series of activities and experiences that help them to become socially, morally, emotionally, physically, and cognitively competent” (Witt; 54, 2002). The setting of residential camp and the design of programs help to achieve this growth in development from children.

Camp has specifically shown measured benefits in self-constructs, social relationships, skill building (both physical and cognitive), and spirituality (Bialeschki and Henderson 2007). Even short periods of time spent at camp yield long term positive benefits for youth (Uhls et al. 2014). Campers who participated in a week long camp session during one study showed an increase in locus of control and general self efficacy when compared to youth who were not given the opportunity of camp (Sekine, 1994). Camp has also been shown to lower anxiety in children (Rawson and Barnett 1993) and improve resiliency (Allen, Cox, and Cooper 2006). It also improves community action, problem solving, empowerment, independence, and affinity for nature (Browne, Garst, and Bialeschki 2011).

More ways to make camp more appealing and beneficial to more children could be revealed through camp research that identifies areas of improvement. There is currently very little research less than 15 years old that looks at responses directly from campers. Instead, what research that exists on camp responses is mainly from the parents’ perspective. This could be due to the challenge of researching youth, since they have a vulnerable status as a minor population. Limitations include the need for both consent and assent forms for parents and minors, simplified language for easier understanding, and more concise surveys for youth’s shorter attention spans. Though parents often have detailed observations of their children before and after camp and despite the challenges of researching youth, it is

THE BENEFITS OF CAMP

important to interview the campers directly to understand their self-reported benefits and opinions on programming. The significance of camp cannot be fully realized until more research is done to show the effects on youth, as well as find out how to make camp better from the perspective of the participants.

The plethora of benefits from summer camps reveal its importance in the path of youth development. If experiences at camp help youth achieve such crucial growth, then why is it seen as a privilege for those who can afford it, rather than pushed to the forefront with research and funding for scholarships? Residential camp is an expensive opportunity, with many options costing around \$1000 per week. Though there are numerous developmental benefits from participating in the camp experience, it is a valid point that not every child may have the desire to go to camp. However, those that want the opportunity of residential camp or even day camp should not be denied these benefits because of affordability issues.

All children should be able to have the option of attending camp at least once without being hindered by monetary limitations, similar to the accessibility of public school. The value of nature and community found at camp should be recognized more by society. Many parents value the experience and choose to send their children because of their own personal exposure to the positive aspects of camp. Increasing accessibility will continue to increase societal value as more people see the benefits. Changes to camp scholarships and policies should be made to make this experience more accessible and more beneficial to campers, regardless of means. Once again, this study intends to research how the outdoor setting of camp is meaningful, and why it might be the best environment to learn key developmental skills and values. The purpose is to demonstrate the benefits of camp and the need for greater

THE BENEFITS OF CAMP

prioritization of camp research by analyzing themes of youth development, the importance of the outdoors, and the value of the camp setting through the eyes of the camper.

Methods

Data Collection Process

The data collection for this study was a survey that measured campers' self reported growth in youth development across four measures. The main research questions of the study are: 1) How spending time in the outdoors is valuable, and 2) what is the summer camp experience impact on children's developmental skills. The American Camp Association (ACA) created a Youth Outcomes Battery (YOB) that has been compiled and tested by professionals in the field (ACA, 2011; Wilson-Ahlstrom, Yohalem, Dubois, & Ji, 2014). Matrix questions from four of the battery's Basic Youth Outcomes Scales were used in this research. This tool was used because it is statistically tested, had multiple subscales to choose from when deciding what youth development outcomes to measure, and gives data that could be compared to other camps and programs that used the same battery. The basic scales were also shorter and simpler than the detailed outcomes scales, and were chosen in the interest of time and ease of understanding. The YOB was most appealing for use in this study because data would be self-reported from the campers themselves. The YOB has been used in a handful of studies on campers (Sibthorp, Morgan, & Browne, 2013; Sibthorp, Browne, & Bialeschki, 2010; Schmillen, Jacobs, & Roark, 2011). However most of these studies were either validating and norming the battery responses, or used only a few of the battery's scales per study on a smaller scale than 2005 *Directions*.

THE BENEFITS OF CAMP

The research method involved pen and paper surveys, administered once to campers at the beginning of the session and once at the end. The pre- and post-session surveys measured campers' self-reported progress during camp based on 4 measures of youth development from the ACA Youth Outcomes Battery. At present, the YOB has 11 separate measures: Friendship Skills (FS), Family Citizenship Behavior (FCB), Responsibility (RESP), Independence (IND), Teamwork Skills (TW), Perceived Competence (COMP), Affinity for Exploration (AE), Affinity for Nature (AN), Problem Solving Confidence (PSC), Camp Connectedness (CC), and Spiritual Wellbeing (SWB; ACA, 2011). The measures looked at in this study were teamwork (TW), community (CC), affinity for nature (AN), and responsibility (RESP). The matrix responses are on a five-point scale with 5 being the most increased.

Specifically, this study compared campers of different genders, attending varying lengths of sessions, and across two different single-gender residential camps in Western North Carolina. One is a boys camp for 1st-10th graders, and the other is a girls camp for rising 1st-11th graders. Both camps offer 1 week, 2 week, 3 week, and 4 week sessions, as well as similar programs with both traditional camp activities and outdoor adventure trips. However, at the boys camp results were only able to be gathered from the 4 week session, while at the girls camp the campers were surveyed at all four session lengths. Though the surveys were administered to every camper in attendance, only survey responses from campers ages 10 and older were used to ensure their ability to read and comprehend the survey questions on their own.

THE BENEFITS OF CAMP

Responses were also only used from campers who signed their consent (see minor's assent form in Appendix III). Consent forms from parents were provided through camp paperwork giving camp permission to conduct self-evaluation through surveys (often given to campers to measure their satisfaction during the session to find out if there is anything to change). The survey fit into the normal function of camp life and received IRB approval. The author distributed and collected the surveys at the girls' camp where she worked, ensuring anonymity of answers by coding surveys and not collecting respondents names. The program director of the boys camp administered and collected the same surveys at the beginning and end of the sessions, following the instructions from the predetermined study protocol.

There were 578 total survey responses. Including both pre- and post-surveys, there were 179 from the girl's camp and 399 from the much larger boy's camp. This was from a sample of 462 total campers. There were 100 pre-camp surveys and 79 post surveys from the 163 youth at the girl's camp. During the 3-week session at the girls camp there were, 38 campers, during the 4-week session there were 105, and during the 2-week session there were 20. However, only the responses from campers aged 10 or older were used. There were 197 pre surveys and 202 post surveys from the 299 youth at the boy's camp, which had 299 campers during one four-week session. Regardless of camp, the youngest camper who took the survey was 10, and the oldest was 17. These numbers are illustrated in Table 1, but one thing to note is that though the sample size of the campers tells us how many surveys were administered, it is not reflective of the actual number of campers eligible to respond to the survey. If I were to recreate this test, I would be sure to count the number of campers over 10

THE BENEFITS OF CAMP

years old and who had signed the assent form, since that number would better reflect the actual sample size needed to calculate a response rate.

Table 1

	number of 2- week campers /surveys administered	number of 3-week campers/ surveys administered	total number of 4-week campers/ surveys administered	total campers for the summer/ total surveys administered	total pre camp surveys collected (does not include campers under age 10 or without assent forms)	total post camp surveys collected (does not include campers under age 10 or without assent forms)	total pre and post responses collected (does not include campers under age 10 or without assent forms)
Boys Camp	N/A	N/A	299	299	197	202	399
Girls Camp	20	38	105	163	100	79	179

Data Analysis

Once the surveys were collected, SPSS was used to statistically analyze the responses. First, the data was entered into the application and recoded into variables. Variables like “summer camp” or “pre/post camp” were given values in order to sort responses by categories such as gender and time. For example, a value of “1” in the pre/post camp value indicated a pre-camp response, while a “2” indicated post. Each survey was given an individual number so responses could be sorted by categories within SPSS anonymously. A full description of these recoded variables can be found in Appendix IV.

THE BENEFITS OF CAMP

Means were compared for every variable in each of the 4 measures of youth development, analyzing differences between pre and post camp responses by using an independent t-test. The independent t-test was chosen because though the sample of youth remained the same, anonymous data collection did not allow for comparison between individual camper's pre and post responses. Scores that could be given for each question response ranged from 1-5, with 5 being the most increased and 1 being decreased. It was also necessary to take into account whether each of the pre and post differences were statistically significant (where $p > 0.05$). Themes in the data showed very minimal changes from pre to post, and surprisingly more often showed higher averages in the pre than the post, especially for the girls camp.

Results

In the boys' camp results, only two post-camp factors statistically increased at a higher rate than the pre-camp results. Both were part of the Affinity for Nature measure: "desire to spend time outdoors" (3.69 to 3.99 with $p=0.001$) and "liking nature" (3.31 to 3.63 with $p=0.001$). Seventeen of the other factors also increased from pre to post camp responses, though these were not statistically significant. Three post-camp factors statistically decreased at a higher rate than the pre-camp results. Two were from the Camp Connectedness measure: "I like the other kids" (3.92 to 3.68 with $p=0.039$) and "I am treated fairly by the staff" (3.83 to 3.61 with $p=0.017$). The third was from the Independence measure: "taking care of myself" (4.27 to 4.05 with $p=0.025$). See Table 2 below for data on significant variables.

THE BENEFITS OF CAMP

In the girls' camp, the rate increased much slower than the boys and there were no statistically significant rates higher in the post survey than the pre survey. "helping others succeed," "liking nature," "attachment to the location of camp," and "I feel safe to express myself" all increased more in the post camp survey, but were not statistically significant (where $p > 0.05$). Four post-camp factors statistically decreased at a higher rate than the pre-camp results. Two were from the Camp Connectedness measure: "I am treated fairly by the staff" (3.96 to 3.19 with $p = 0.002$), and "The staff listen to me" (3.67 to 3.07 with $p = 0.011$). The other two were from the Independence measure: "Taking care of myself" (4.38 to 3.98 with $p = 0.021$), and the Affinity for Nature measure: "Feeling more responsible for taking care of nature" (4.00 to 3.60 with $p = 0.041$). See Table 2 below for data on significant variables. Data tables of complete independent t-test results can be found in Appendix II.

table 2

THE BENEFITS OF CAMP

Scales were computed for the four youth development measures. All cronbach's alpha levels of reliability were above 0.6, indicating high reliability in each scale as a whole. The possible mean scores range from lowest to highest possible as follows: Nature (7-35), Independence (6-30), Camp Connectedness (11-55), Teamwork (8-40). None of the scales showed significant change from pre to post results for either the girls camp or all camps as a whole. However, the boys' camp showed a significant improvement from pre to post for the Nature scale (25.55 to 26.76 with $p=0.035$).

Table 3

A two way between-groups analysis of variance was also conducted to explore the impact of gender on the development scales, as measured by pre and post tests. The relationship between gender and pre/post camp responses were not significant for any of the

THE BENEFITS OF CAMP

scale values, except for the nature scale for the boy's camp. This had a significant effect in the direction documented in the t-tests. This finding from the 2-way ANOVA had a significant interaction effect of 0.028 and an effect size of 0.01.

Discussion

The study results may suggest that boys benefit from camp more than girls in independence and affinity for nature, while girls gain more community appreciation and place attachment. However, one potential reason for the boys camp having statistically significant results but not the girls camp, is that the boys camp data was from only the 4 week session, while the girls camp was a combination of 2, 3, and 4 week responses. This longer time for growth and reflection in the boys camp may have influenced the significance of camper responses, however previous research (ACA Directions, 2005) has not always found this to be the case. Responses also may have changed if more time was given between the pre and post survey for reflection. In the future, more studies should be done based on gender to see if these trends are true, or if it is just a matter of needing time to reflect on the camp experience. Full statistics grouped by gender and developmental measure can be found in Appendix II a-b.

Because the last 3 responses in the survey matrix were all different levels of "increased," my data seemed to have decreased when in fact it only increased at a slower rate. This was misleading because the results did show that campers were reporting increases in all four factors, but not at an increased rate from the pre- camp survey, making it look like reported youth development stopped. The survey questions were not phrased well for pre and

THE BENEFITS OF CAMP

post testing since they were not initially meant to be used as comparisons, but as a single post survey. Though it was convenient to use the ACA Battery, in the future it may be less confusing to create new questions and wording for future surveys. This thesis research revealed the challenges of measuring the camp experience, and the complications when using a survey instrument with youth. Though my survey was at the micro level, it does not take away from the support for camp I have found at the more macro level, nor does it take away from the growth in communication, friendship, community living, and activity skills that I observed in my own campers over the summer.

Little research has been done from the camper's perspective. Much of the research is from either observation or parental and staff reports. The purpose of this thesis was to document the camp experience and its potential benefits through the eyes of the camper. The intention of this thesis is to research how the outdoor setting of camp is meaningful, and why it might be the best environment to learn key developmental skills and values. Existing literature has established that spending time in nature is meaningful, and has shown that spending time at camp offers a further extension of these benefits. Summer camp is still not widely recognized as a developmental opportunity for youth, and it needs to be pushed to the forefront in research. Efforts should be made to use such research to better shape the programming for a more beneficial impact, since previous studies have shown that purposeful programming is more beneficial to youth development (Garst, Browne, & Bialeschki 2011; Henderson et al. 2006). Finally, camp is seen as a privilege and can be a very expensive experience that is not always affordable for every child. Policies and social trends should be looked into to change this fact, pushing camps to offer more scholarships,

THE BENEFITS OF CAMP

creating more grants to send children to camp, and even creating public camps that are funded like public schools and open to any child.

Based on the social trends surrounding attitudes towards summer camp and the lack of recent major research from the campers perspectives, there needs to be a shift towards prioritizing this field of study more. Camp is an experience that already impacts a huge number of youth, but it's developmental benefits suggest that all children should have the opportunity to attend camp as part of their adolescent growth experience. Just as school is seen as mandatory for educational purposes, camp should also be seen as an educational experience that teaches social skills and leadership qualities that are not able to be taught in an everyday school setting. More research from the campers' perspective is necessary if we are to learn how to best shape the programming for maximum developmental benefits.

Limitations

Taking into account the weaknesses of the survey, the sections that follow will go into more detail about the findings, address the impact of the camp experience, and offer policy suggestions for making the camp experience available for all children interested. One of the advantages of the Youth Outcomes Battery was to have the study results be compared to other studies. However, some challenges to administering the survey could include having the campers participating among friends. In such an exciting setting this could have posed a distraction to young respondents. Additionally, the wording of the battery questions was confusing to youth, affecting their responses and revealing the weakness of the YOB as a way to test camp effectiveness.

THE BENEFITS OF CAMP

There were a few limitations to the research that would be adjusted for future studies. Firstly, since this study was working with a sensitive population, the IRB would not allow the responses of campers to be used unless the data was collected anonymously or every camper had their parents sign a consent form. This posed a challenge for the camps obtaining parental consent as they did not want to add to the amount of paperwork for parents, nor did they want to be intrusive to the parent's perspective of their child's camp experience. The large number of campers that attended camp made this impractical and would have been disruptive to the progression of the typical day. Because of this, the research had to be gathered anonymously and analyzed as a group rather than looking at specific individual growth.

It is hypothesized that taking the test at camp among friends and in such an exciting setting could have posed a distraction to young respondents. Though the 2013 American Camp Association survey battery was chosen to be used so that data could be compared to other studies using the same scale in the future, the positively skewed responses raise questions about replicating the study with the same battery in the future. Respondents reported gaining developmental benefits among all factors in both pre and post surveys, but most responses decreased from pre to post results. Similar to the 2005 ACA study *Directions*, this study could be strengthened in the future by allowing time for a second post test several months after youth have returned home from the camp session.

The matrix questionnaire itself also was positively skewed, because the responses started with "decreased" and "did not increase or decrease," but then offered three positive responses: "Increased a little bit maybe," "Increased some I am sure," and "Increased a lot I

THE BENEFITS OF CAMP

am sure.” When the American Camping Association was contacted about this, the senior researcher explained that the battery offered three positive responses because often youth enjoy camp and their responses ceiling out the positive side. The researcher explained that “the scale is purposefully skewed to accommodate this positive angle and be more discerning when dealing with positive responses.”

Finally, the study was constrained by time and not disrupting the normal flow of life at camp. However, in the future, mixed methods would be recommended, incorporating observation and interviews with more qualitative methods to gather camper responses, rather than relying solely on a quantitative survey. Supplementing survey data would allow the responses from campers to be more detailed, and interviews have a better response rate than surveys. Observations and interviews could take place throughout the camp session, and follow up interviews could be scheduled with willing campers for after they return home.

Research Recommendations

If this survey were to be repeated in the future, it would be recommended to allow time to have an additional follow up survey for campers to complete at home, similar to the methods in the 2005 *Directions* study. Whether the follow up survey was given 6 months after camp or years down the road as an adult reflection, this would offer less distraction than the camp environment and more time to have reflected on the experience and potential development. In a collaborative research effort with the American Camping Association, an online survey was sent out to camp alumni to determine their perceptions of personal skill development from camp as a child (Garst, B. A., Gagnon, R. J., & Whittington, A. 2016).

THE BENEFITS OF CAMP

Similarly, following up with the youth from this pre/post study would also be beneficial in the future, allowing campers time to reflect on potential life skills gained from their camp impact. In future research, it would also be recommended to add questions about technology and social media, investigating whether campers noticed a difference in their mood and communication once they were separated from their electronic devices and able to interact face to face at camp.

Another recommendation would be to take the time to look at the results from individual campers rather than comparing pre and post results from the entire population of campers as a whole. This would require more time to get approval with the IRB, and cooperation with camps to have consent forms signed by every parent. It may also be helpful to have a budget for monetary incentives or prizes for respondents. Future research may also benefit from gathering observational data in addition to survey responses, and interviewing a sample of campers for more detailed responses.

Conclusion

In conclusion, the purpose of this thesis was to discover the camp experience and its potential benefits through the eyes of the camper. This research was done to find out how spending time in the outdoors is valuable, and what the camp experience impact is on children's development skills. With the prevalence and reliance on technology and digital entertainment in today's society, there has been a decrease in the amount of time children are spending playing outside. As previously mentioned, separation from nature has shown to negatively affect rates of obesity, ADD diagnoses, depression, and other health problems

THE BENEFITS OF CAMP

(Louv 2005). The emphasis on indoor play is not fostering a love for the outdoors in the youngest generations, which is crucial if we have any hope of slowing the pollution and deforestation rates. If camp is one of the best place for youth development and ecological awareness in such a digital age, society needs to prioritize this outdoor experience and make it valuable as well as accessible to all children.

With the proposed “nature-deficit-disorder” among youth today, making camp more accessible is the best solution for ensuring that this resource is available to benefit youth development. This paper demonstrated the benefits of camp not easily found in everyday life, where social media and the internet are major distractions from face-to-face communication and outdoor play. The need for camp’s greater prioritization is shown by analyzing themes of youth development, the importance of the outdoors, and the value of the camp setting.

As explained previously, camp is undervalued and under-researched, with the majority of camp research being from the parent and staff point of view rather than the campers’. Focusing on the importance of camp is necessary not only for youth development and enabling more children to attend, but also to encourage more research in the camp industry. My individual study was important because it adds to the research in the field, and it is made of self reported responses from the campers. To reiterate, the pre- and post-session surveys used a five-point scale to measure teamwork, community, affinity for nature, and responsibility. The study used the Youth Outcomes Battery created by the American Camp Association, which is important to be able to compare responses to other studies who have used the same tested matrix.

THE BENEFITS OF CAMP

Though my personal research does not display the significant increases at the rates anticipated, the multitude of existing camp research detailed earlier in the paper shows that the camp experience is beneficial for youth development and is difficult to replicate outside of the camp setting (Louv, 2005; Orr, 2004; Montessori, 1967). While the data showed that youth developments at camp increased at a rate no faster than reported at home, my position at the camp and relationship with the campers allowed me to see the individual growth of the campers first hand. The most rewarding part of the job was being able to see the growth of campers during the length of a session, socially, physically, and emotionally, even if the campers did not realize the extent of their improvements. I could see this growth in activity lessons when campers gained skills, which was measured by their upward movement in the activity level progression systems. It was also seen in their increases in confidence, communication with one another, and independence as the camp session went on and campers learned they could grow without their parents present. I was able to be a part of something that I believed in, and share an experience that had been crucial to my own development.

The lack of significant results from my study further show that more camp research measuring youth development from camper's perspective should continue to be pursued. With the majority of children spending their free time playing inside on a screen, the next generation is not fostering that affinity for nature necessary for protecting the outdoors, not to mention they are missing out on all the benefits of time spent outside. More research on camp could reveal how to shape programming to provide the best developmental experience to the most youth possible. Additionally, it can provide evidence that demonstrates the

THE BENEFITS OF CAMP

benefits of the camp to the larger public, garnering more support and funding for camp to be able to affect more youth.

The future of camp requires not only more interest in research, but also more focus on its accessibility for all. By publicizing the benefits of the camp experience, society can potentially realize that the lessons learned in the outdoor setting within a unique community are just as important as those learned in the indoor school setting. If time spent in the outdoors is prioritized, youth will gain key social, emotional, and physical developments. If camp is made more accessible, then it can provide an ideal setting for this growth. Though some youth have no interest in camp or are afraid of homesickness, making day camp an accessible option is another alternative. While not advocating for forcing a child to go to camp, there are benefits from being homesick for the child's development. In my own experience, I have personally benefited from missing home and then discovering the independence and resiliency in myself after fitting into a new camp community.

The American Academy of Pediatrics has published a testimony on the need for children to spend more time outdoors in order to be healthy (Ginsburg, 2006). However, there is not a policy to ensure that outdoor play and nature spaces are accessible. If we take a global perspective, we can see that other countries around the world are already prioritizing outdoor play and an affinity for nature. In Western Australia outdoor education is necessary, and a 248 page policy document exists that outline the proper procedures for a wide range of outdoor activities that teachers are expected to lead their students in (Department of Education, 2008). The Australian educators believe that a comprehensive learning environment includes outdoor experiences to develop independence and nature skills, and

THE BENEFITS OF CAMP

holds Outdoor Education as an entire study subject in schools

(outdooreducationaustralia.org.au). The curriculum implements a way of thinking that shapes the mindset of youth and their outdoor experiences. This forms a new emphasis on personal growth, mental growth, and well being. Australia's policy makes a compelling international case about priorities with the outdoors and health. The success of outdoor education in school curriculum suggests that the addition of camp in a child's life will also positively affect their growth.

Another international example can be found in Russia. To combat the huge decline in population of children in Russia from 1994-2003 after the Soviet Union, new programs were created to protect children's health and rights. Regardless of the child's monetary background, Russia thought that every child was required a summer vacation and would subsidize summer camp tuitions (Hays, 2016; Roudik, 2007). Russia prioritized these experiences like school and understood the benefits, so they adjusted their policies to allow for accessibility among all social classes. In our economy this would have to be federally funded and may cause pushback on how taxes are used, but with more research supporting the benefits and necessity of outdoor play and camp as the best environment, maybe more of the public would get behind the endeavor.

I think back to that mountain bike lesson with my sister during her camp experience, and how confident and excited she was. At the end of the session, a tradition specific to this camp is giving tie pins to campers which commemorate certain milestones, accomplishments, or memories made. I gave all the campers in my mountain bike classes pins made from a bike chain, which my sister pinned enthusiastically at the top of her tie. She

THE BENEFITS OF CAMP

wore her tie with its new pins all day the next day when parents arrived to pick up their children, proudly explaining to mom and dad what the pins signified. The skills that my sister gained in mountain biking and her other activities that summer were important, but the value in that pride, confidence, and sense of self-worth from her experiences is priceless. Every child should be able to have the same opportunity for growth, wonder, and self esteem.

I propose a new federal funding system to provide grants and scholarships to potential campers who would not otherwise have such an outdoor experience. A policy that includes the not only the importance of time in the outdoors, but also the improvement of accessibility to the outdoors and camp is needed. More research would provide the reasoning behind this need for funding, and allow more youth to gain the benefits that come from experiencing a close community and skill-building in a nature setting. The more youth given the ability to spend time in the outdoors and foster their appreciation for nature, the more society would be filled with well-rounded adults who will care for our environment in an increasingly digital age. Improving the accessibility and involvement of the outdoor world is crucial for the future of mankind, and spreading the camp experience is the best way to instill this love for nature, cultivate community skills in a technology centered age, and gain key youth developments.

THE BENEFITS OF CAMP

Resources

Allen, L. R., Cox, J., & Cooper, N. L. (2006). The impact of a summer day camp on the resiliency of disadvantaged youths: outcome-based programming in a recreation setting can help to build the resiliency skills of disadvantaged youths. *JOPERD--The Journal Of Physical Education, Recreation & Dance*, (1), 17.

American Camp Association (2005). "Directions" *Youth Development Outcomes of the Camp Experience*. Retrieved October 22, 2017 from https://www.acacamps.org/sites/default/files/resource_library/report-directions-youth-development-outcomes.pdf

Bialeschki, M. D., Henderson, K. A., & James, P. A. (2007). Camp experiences and developmental outcomes for youth. *Child And Adolescent Psychiatric Clinics Of North America*, 16(4), 769.

Bixler, R. D., Floyd, M. F. (1997) Nature is scary, disgusting, and uncomfortable. *Environment and Behavior*, 29 (4), 443-467.

Browne, L. P., Garst, B. A., & Bialeschki, M. D. (2011). Engaging Youth in Environmental Sustainability: Impact of the Camp 2 Grow Program. *Journal Of Park & Recreation Administration*, 29(3), 70-85.

Chawla, L. (2015). Benefits of Nature Contact for Children. *Journal of Planning Literature*, 30 (4), 433-452.

Chawla, L. (2007). Childhood Experiences Associated with Care for the Natural World: A

THE BENEFITS OF CAMP

- Theoretical Framework for Empirical Results. *Children, Youth and Environments* 17(4): 144-170.
- Coon, J. T., Boddy, K., Stein, K., Whear, R., Barton, J., & Depledge, M. H. (2011). Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review. *Environmental Sciences and Technology*, 45(5), 1761-1772. doi: 10.1021/es102947t
- Department of Education: The Government of Western Australia. (2008). *Outdoor Education and Recreation Activities*. 9402-6445.
- Driver, B.L., Dustin, D., Baltic, T., Elsner, G., Peterson, G. (1996). *Nature and the Human Spirit: Toward an Expanded Land Management Ethic*. State College, PA: Venture Publishing, Inc.
- Garst, B. A., Browne, L. P., & Bialeschki, M. D. (2011). Youth development and the camp experience. *New Directions For Youth Development*, 2011(130), 73-87.
- Garst, B. A., Gagnon, R. J., & Whittington, A. (2016). A Closer Look at the Camp Experience: Examining Relationships Between Life Skills, Elements of Positive Youth Development, and Antecedents of Change Among Camp Alumni. *Journal Of Outdoor Recreation, Education & Leadership*, 8(2), 180-199.
- Gershon, L. (2016). "Summer Camp, History Of." *JSTOR Daily*, April 26, 2016.
- Gentile, D. A., Berch, O. N., Choo, H., Khoo, A., & Walsh, D. A. (2017). Bedroom media: One risk factor for development. *Developmental Psychology*, 53(12), 2340-2355.
- Ginsburg, K (2006). "No Child Left Inside: Reconnecting Kids with the Outdoors" *American*

THE BENEFITS OF CAMP

Academy of Pediatrics, 2-7.

Hays, J. (2016). *Welfare, Pensions, and Social Benefits in Russia*. Facts and Details.

Retrieved November 19, 2017 from

http://factsanddetails.com/russia/Government_Military_Crime/sub9_5a/entry-5197.html

Henderson, K. A., Thurber, C. A., Whitaker, L. S., Bialeschki, M. D., & Scanlin, M. M.

(2006). Development and Application of a Camper Growth Index for Youth. *Journal Of Experiential Education*, 29(1), 1-17.

History.com Staff (2010). *The Invention of the Internet*. A+E Networks. Retrieved November

19, 2017 from <http://www.history.com/topics/inventions/invention-of-the-internet>

Hofferth, S. L., & Sandberg, J. F. (2001). Changes in American children's time, 1981-1997.

Advances in Life Course Research, 6, 193-229. doi: 10.1016/S1040-2608(01)80011-3

James, J. J., Bixler, R. D., & Vadala, C. (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. Retrieved

February 12, 2018 from <http://www.colorado.edu/journals/cye>.

Klein, L. R., Pomer, M. (2001). *The New Russia: Transition Gone Awry*. Stanford, CA:

Stanford University Press.

Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*.

Chapel Hill, NC: Algonquin Books of Chapel Hill.

Maas, J., Verheij, R. A., de Vries, S., Spreeuwenberg, P., Schellevis, F. G., & Groenewegen,

THE BENEFITS OF CAMP

- P. P. (2009). Morbidity is related to a green living environment. *Journal of Epidemiology and Community Health*, 63(12), 967-973. doi: 10.1136/jech.2008.079038
- McMurrer, J. (2007). "Choices, Changes, and Challenges: Curriculum and Instruction in the NCLB Era" *Center on Education Policy*. NCLB Year 5.
- Measham, T. G. (2006). "Learning about Environments: The Significance of Primal Landscapes." *Environmental Management* 38(3): 426-434.
- Monke, A. (2015). "The Impact of Camp Experiences on Social Skills and Happiness" *American Camp Association*. Retrieved October 22, 2017 from <https://www.acacamps.org/resource-library/camping-magazine/impact-camp-experiences-social-skills-happiness>
- Montessori, M. (1967). *The discovery of the child*. New York: Ballantine Books.
- National ParkRx Initiative. (2016). The National ParkRx Initiative. Retrieved June 15, 2016, from <http://www.parkrx.org/>
- No Child Left Inside Act of 2013, S.1306, 113th Cong. (2013).
- Orr, D. W. (2004). *Earth in mind: On education, environment, and the human prospect*. Washington, DC: Island Press.
- Rawson, H., & Barnett, T. (1993). Changes in children's manifest anxiety in a therapeutic short-term camping experience: an exploratory study. *Therapeutic Recreation Journal*, 27(1), 22-32.
- Rideout, V. J., Foehr, U. G., & Roberts, D. F. (2010). *Generation M2. [electronic resource] : media in the lives of 8- to 18-year-olds*. Menlo Park, Calif. : Henry J. Kaiser Family

THE BENEFITS OF CAMP

- Foundation, 2010.
- Rigolon, A. (2017). Research Paper: Parks and young people: An environmental justice study of park proximity, acreage, and quality in Denver, Colorado. *Landscape And Urban Planning, 165*73-83
- Roudik, P. (2007). Children's Rights: Russian Federation. *The Law Library of Congress*.
2007-04112
- Schusler, T. M., & Krasny, M. E. (2010). Environmental Action as Context for Youth Development. *Journal Of Environmental Education, 41*(4), 208-223.
- Schmillen, J., Jacobs, J., & Roark, M. F. (2011). Campers' Affinity for Nature in Environmental Education Programs. *Camping Magazine, 84*(4), 8-11.
- Schultz, W., Tabanico, J. (2007). "Self, Identity, and the Natural Environment: Exploring Implicit Connections to Nature." *Journal of Applied Social Psychology 37*(6): 1219-1247.
- Sekine, A. (1994). The effect of camp experience upon the locus of control and general self-efficacy of school children. *Bulletin Of Institute Of Health & Sport Sciences, University Of Tsukuba, 17*, 177-183.
- SHAPE America (2016). Shape of the Nation: Status of Physical Education in the USA. *Shape America – Society of Health and Physical Educators*. Retrieved December 3, 2017 from shapeamerica.org.
- Sibthorp, J., Browne, L., & Bialeschki, M.D. (2011). Measuring positive youth development at summer camp: Problem solving and camp connectedness. *Journal for Research on Outdoor Education, 10*, 1-12.

THE BENEFITS OF CAMP

- Sibthorp, J., 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), 514-536.
- Strife, S., & Downey, L. (2009). Childhood Development and Access to Nature: A New Direction for Environmental Inequality Research. *Organization & Environment*, 22(1), 99–122. <http://doi.org/10.1177/1086026609333340>
- Uhls, Y. T., Michikyan, M., Morris, J., Garcia, D., Small, G. W., Zgourou, E., & Greenfield, P. M. (2014). Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues. *Computers In Human Behavior*, 39387-392.
- Walter, P. (2013). Greening the net generation: outdoor adult learning in the digital age. *Adult Learning*, (4), 151.
- Wells, N. M. & Lekies, K. M. (2006). “Nature and the Life Course: Pathways from Childhood Nature Experiences to Adult Environmentalism.” *Children, Youth and Environments* 16(1): 1-24.
<http://www.jstor.org/stable/10.7721/chilyoutenvi.16.1.0001>
- Wen, M., Zhang, X., Harris, C. D., Holt, J. B., & Croft, J. B. (2013). Spatial Disparities in the Distribution of Parks and Green Spaces in the USA. *Annals of Behavioral Medicine : A Publication of the Society of Behavioral Medicine*, 45 (Suppl 1), 18–27.
<http://doi.org/10.1007/s12160-012-9426-x>
- Wilson-Ahlstrom, A., Yohalem, N., DuBois, D., Ji, P., Hillaker, B., Weikart, D. P., & Forum

THE BENEFITS OF CAMP

for Youth, I. (2014). *From Soft Skills to Hard Data: Measuring Youth Program Outcomes*. Second Edition.

Witt, P. A. (2002). Youth development: going to the next level; services for youth need to help reduce problem behaviors, and increase pro-social attitudes and skills. (Social Issues). *Parks & Recreation*, (3). 52.

THE BENEFITS OF CAMP

APPENDIX I
Survey Example

THE BENEFITS OF CAMP

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THE BENEFITS OF CAMP

THE BENEFITS OF CAMP

APPENDIX II
Tables 4-7: Full t-test results

table 4

THE BENEFITS OF CAMP

table 5

THE BENEFITS OF CAMP

table 6

table 7

THE BENEFITS OF CAMP

APPENDIX III.

Consent Form

The Benefits of Camp: Necessity of the Outdoors and the Community in the Digital Age

Principal Investigator: Annie Pharr

Contact Information: pharma@appstate.edu

Faculty Advisor: Dr. Joy James, jamesjj@appstate.edu

Joining a Research Study

What is research?

Research is a way to test new ideas and helps us learn new things. We are asking you to join a research study.

Being part of a research study is your choice. You can say Yes or No. Whatever you decide is OK.

Why are we doing this research?

All camps want to know how they impact campers. For this research study, we want to see how summer camp is beneficial to you. We want to see if being at camp improves life skills like communication, independence, and confidence. Also, we want to find out if the camp community and experiences might help you feel more connected to nature.

What will happen in the research?

I am asking your permission to use your answers to Camp [NAME]'s questions in the survey at the beginning of camp.

What are the good things that can happen from this research?

What we learn in this research will help the camp in making decisions on how to improve your experience as a camper. When we finish the research, it will inform us how camp benefits children, how it can be improved, and why it is important.

THE BENEFITS OF CAMP

What are the bad things that can happen from this research?

Nothing bad will happen if you choose to or not to participate. At any time, if you decide you do not like answering the questions, you can pass and not answer. It is ok if you choose to do this.

What else should you know about the research?

Joining a research study is your choice. You can say Yes or No. Either way is OK.

If you say Yes now and change your mind later that is OK. You can stop being in the research at any time. If you want to stop, please tell me or a counselor.

Take the time you need to make your choice. Ask us any questions you have. You can ask questions any time.

The researcher has told me about the research study. I had a chance to ask questions. I know I can ask questions or stop at any time. I want to be in the research study.

YES _____ NO _____

Print your name

Sign your name

Today's Date

Copies to: Research Participant and Parent/Legal Guardian

THE BENEFITS OF CAMP

APPENDIX IV.
Recode Details

The responses were re-coded with the variable "CAMP," where a "1" indicated the girl's camp while a "2" indicated the boys' camp. Surveys #1-100 were girls' pre camp surveys, while #1001-1072 and #1276-1283 were girls' post camp. Surveys #101-297 were boys' pre camp, while #1073-1275 were boys' post camp.