Raising an Indoor Generation: Outdoor Environmental Education
Impact on Adolescent Development

Daisy Elizabeth Bewley

Follow this and additional works at: https://fordham.bepress.com/environ_2015

Part of the Community-Based Learning Commons, Development Studies Commons, Early Childhood Education Commons, Educational Methods Commons, Outdoor Education Commons, and the Place and Environment Commons
Raising an Indoor Generation: Outdoor Environmental Education Impact on Adolescent Development

Daisy Bewley
Abstract

In an increasingly digital world, children are growing up with less involvement and interaction with the environment. Hands-on and experiential learning is less popular in schools and a more test-oriented and numerical evaluation is increasingly popular. This thesis explores the decrease in outdoor environmental education and the impact that has on adolescent development and developmental milestones in children. This impact extends past just mental development and impacts the physical health development of children. Obesity, attention deficit disorders, and other behavioral issues are just a few of the signs of the problems that have arisen due to a decrease in environmental education.

Chapter 1 I present Richard Louv’s term “Nature Deficit Disorder” as the idea that children are spending less time outside and are suffering because of this. In Chapter 2 I explore the history behind outdoor education, not only in former policy but also as a society how education was more focused on the environment in which children learn. Chapter 4 goes into detail on how outdoor environmental education can affect the psychology of young children and what the effect can be if children are not exposed to environmental education. Chapter 6 extends from chapter 1 but explores the range in policies that exist all over the world that involve children and how varying policies can improve or hurt children's development, success, and health. Chapters 3 and 5 will give case studies into two popular forms of getting children outside and participating in activities organically. This thesis explores the history of outdoor environmental education and it’s removal from daily life and school setting’s impact on children's development.

Keywords: Environmental Education, childhood development, developmental milestones, policy, history, psychology, sociology, nature deficit disorder.
Table of Contents


Chapter 1. Nature Deficit Disorder and Its Impact on Youth

Chapter 2. The Evolution of Children’s Play in the Outdoors

Chapter 3. Case Study 1 - American Summer Camps

Chapter 4. The Psychological Development Domains and Outdoor Activities Impact

Chapter 5. Case Study 2 - Playgrounds and Unstructured Play

Chapter 6. Testing Our Kids; Politics and the Power of the World

Chapter 7. Fixing the Broken and Getting Kids Playing Again

Bibliography
Acknowledgments

Without the guidance and support from my mother, Jane, and my brother, Jon, I would not have recognized my passion for this area of study and felt supported to pursue as a degree. Thank you for forcing me to go on hikes and walks all those times I did not want to leave the house, but you both knew I needed it.

To my educators at Proctor Academy, thank you for nurturing me as a student with a prominent environmental mindset and for recognizing this interest and giving me the opportunity, space, and ability to grow and adapt my skills and love for this discipline.

John Tilley and the Year-Round Staff at Camp Coniston, being a last-minute addition camper in 2007, working four amazing summers, and being program area director in two areas of outdoor activities that give me so much joy and changed the trajectory of my young life and I owe you all greatly.

When I think of the vivid memories of my childhood, I am reminded of the tough hikes my family pushed me to complete, the days on the lake exploring the water and what was living under the surface. The sun rays penetrating through the trees to wake up after another night sleeping in the White Mountains. These settings became places I learned in. I learned about practical skills but I also learned valuable lessons about interpersonal relationships, how to interact with others, and how to grow as an individual. I grew up outdoors and was allowed to explore both by myself and with my peers. There are endless lessons that have been imprinted on my mind: I let confidence flourish and become stronger when I shared my skills of backcountry first aid, I reinforced classroom knowledge by doing species studies at my high school's pond, I wrote poetry sitting in a still, quiet field, and I created and nurtured friendships in settings that were not the status quo.

I recognize it was a unique privilege to experience and learn in the outdoors when I was younger. Through growing up I have also realized both the inaccessibility to this type of learning environment and the importance of children having access to this type of environment. I recognized that these unique experiences I had growing up should no longer be unique and privileged, as children must get exposure and experience in the outdoors during the most influential to development time in their young lives. Since coming to the Bronx and meeting friends who did not experience the outdoors the same way I did, in addition to seeing the lack of outdoor education opportunities in the Bronx and other urban locations, I recognized the unique importance of this experience on a young child's life. In addition to that, I see that there is an
opportunity for policy changes and the adoption of programs to implement outdoor programs
into neighborhoods and towns where this type of education is lacking.

This thesis will explore the complex relationship and history children in the United States
have had with outdoor environmental education. This type of learning in outdoor settings has a
deep-seated history in the culture of the United States. When we think of outdoor education there
is a vast number of programs and systems that come to mind. It ranges from simple things like
recess, playing on playgrounds and outdoor school field trips, to major programs like NOLS, the
Boy and Girl Scouts of America. The existence of these programs has aided childhood
development throughout the years. However, in recent years these programs have been
diminishing in the United States both in importance and in funding. These programs have fallen
to the wayside to more standardized testing and more numerical evaluations. By decreasing
access to these programs, children have now been subjected to "Nature Deficit Disorder". This
term, coined by Richard Louv, explains the phenomenon that occurs when children spend less
time outdoors and have more behavioral issues. These issues extend much further than just
children relying more on technology and having less face to face social interaction, but rather the
lack of outdoor exposure and opportunity to learn skills and behavior outdoors is detrimental to
development. However, the issues that arise from lack of outdoor education do not only affect
behavioral issues but can have an impact on childhood development as a whole, physical health
issues, and mental health. Different and effective settings will also be presented, with a case
studies done on American summer camps and their history and development and on the
playground and unstructured play anchoring the thesis, with specific playground designs
presented as a simple architectural ways to bring back some of the historical and beneficial types
of settings for play for children. By looking at these practical and normal settings, it is obvious that outdoor play and education is something that has existed and been beneficial in the past, but has unfortunately gone by the wayside to focus on numerical data on childhood development and education, rather than the focus being on the individual child, or the education that can occur outside of the classroom.

Chapter 1 lays out the quantitative data relating to Nature Deficit Disorder. Some of this data relates to the correlation between an increase in childhood health and behavioral issues and the decrease in outdoor education programs at schools and the implementation of more standardization in schools. Chapter 2 will explore the history of outdoor environmental education ranging from the early days of scouting and informal outdoor education to more modern private programs like National Outdoor Leadership School (more commonly known as NOLS) and Project Adventure and the historical movement away from these programs. Chapter 3 will give a case study into the history and development of summer camps in the United States. Chapter 4 will dive deeper into the various development domains that lay the groundwork for healthy, successful children. Once that groundwork is laid, this chapter will look at the psychological effects and stunted development that can occur when children are given access to the outdoors versus when they are not. Chapter 5 will be a case study on playgrounds and unstructured play, with definitions and examples of exemplary playgrounds and unstructured play settings that could be implemented in schools and public recreational parks for families and children to go to for access to developmentally friendly spaces for children. Chapter 6 will explore the unique regulation that has been passed in regards to exposing children to outdoor education and how that regulation is still changing today with the information from studies about children and
outdoor education. In Chapter 7 I will present information and propose ideas for implementing outdoor education into communities that would benefit from exposing children to this learning environment. These proposals show and reflect the direct positive impact that increased outdoor environment has on adolescent development in the United States.

Chapter 1. Nature Deficit Disorder and Its Impact on Youth

This chapter will explore the quantitative and statistical data about children's health and well-being both prior to the adoption of a more rigorous, traditional schooling with a focus on empirical grades and test scores and a decrease in outdoor education and exposure. Additionally, studies done on the correlations with children's development and behavior in relation to the outdoors will be summarized and related to quantitative data. Nature Deficit Disorder is an overarching term for various behavioral issues that arise when children have little to no outdoor exposure and have an increase in screen time. Nature Deficit Disorder, according to Louv, is a more robust and concise way of stating that the way children used to interact with nature is not how they interact with it now, and various aspects of a young child's life are being deeply impacted by this lack of outdoor exposure.1 Additionally, Nature Deficit Disorder draws parallels to the attention deficit disorders that are seen widely among youth today. Consequently, by getting more outdoor exposure, many of the symptoms of these common attention disorders will be relieved. This chapter will explore studies that have been conducted that find a correlation between the outdoors and these common attention disorders. Some of the symptoms of this disorder include neurological issues like attention disorders but also pose physical health risks. It

---

should be noted early on that Nature Deficit Disorder is not considered a medical term, but many of Louv’s points connect this phenomenon with health risks and problems. Many describe Nature deficit disorder as “a metaphor—to describe what many of us believe are the human costs of alienation from nature.” However, there are some flaws with using Nature Deficit Disorder to overgeneralize the issues that arise when children spend less time outside. However, in this context, we are looking at Nature Deficit Disorder as a phenomenon that has occurred mostly due to the decrease in children having access to the outdoors and these problems extend from physical health, mental health, and behavioral and emotional health.

Nature Deficit Disorder has no exact starting point. Last Child in the Woods, Louv's book that coined the term was originally released in 2005. The term stems from the idea that this disorder is a reflection and symptom of the lifestyle that exists when children spend less time outside. Also, at the very start of the book, Louv compares his childhood to the childhood of his children. In this instance, he is almost creating a major generational difference between the ways that his generation interacted with the outdoors, versus the millennial and gen z generations. Additionally in 2001 was when No Child Left Behind was implemented into school systems. This program put a higher focus on standardized testing and numerical evaluations. Due to what was considered successful in this program. Many schools were forced to change their curriculum and remove any outdoor education programs or even outdoor recreational time that was deemed inefficient in terms of being successful in No Child Left Behind. When these

____________________________________

2 Jill Suttie, “How to Protect Kids from Nature-Deficit Disorder,” Greater Good (Greater Good Science Center at UC Berkeley, September 15, 2016), https://greatergood.berkeley.edu/article/item/how_to_protect_kids_from_nature_deficit_disorder)

3 Louv, Last Child in the Woods
programs were removed, it was noted that several issues in school children began to come up to the forefront.

The first issue of focus is physical health. After all, physical health is the more obvious part of the human being that is affected by outdoor activity and physical activity. For young children's physical health can have an extreme impact on growth and development at a young age. If children do not participate in consistent physical activity growing up, various health issues can develop, along with problems involving fine and gross motor skills. When schools moved from outdoor education or even just more experimental education to more standardized, classrooms and schools began to look different. Physical activity became a secondary part of school whereas getting information digested at a fast pace was brought to the forefront and widely adopted. Recess, physical ed and gym classes, field trips, and other outdoor activities were given less funding and were cut from schools. Children began getting less physical activity. For some children, these physical, outdoor activities they got at school was the only physical activity they received during the day. Numerous health issues arise when children are not given the opportunity to receive physical activity. As a human being, consistent physical activity is imperative to overall health and is a major indicator of overall quality health. Childhood obesity rose 3.2% over two years immediately following the creation of No Child Left Behind. The rate dropped over the few years following this immediate rise due to surges of programs that encourage children to play more outside. However, the 2015-2016 data shows that childhood obesity is still up and even higher at a staggering 18.5%. Childhood obesity is

---

somewhat of a gateway health issue for more health problems in your children. In an article posted by the U.S Department of Health and Human Services it was found that "each year between 2002 and 2012, the rate of new cases of type 1 diabetes in youths under 20 rose by about 2%...type 2 diabetes in youths ages 10 to 19 increased by about 5%. Unlike type 1 diabetes, type 2 is seldom diagnosed in children younger than 10."\(^5\)

Childhood obesity, diabetes, and other gateway issues that arise with a lack of physical activity in the outdoors are not the only physical problems that occur with a limit to outdoor exposure. Getting fresh air and sun exposure is important for internal, physical health. Responsible sun exposure is often linked to vitamin D. The thought is that when the skin is exposed to sunlight, vitamin D is made from cholesterol. These physical health issues can also impact the mental and emotional health of children, while the lack of outdoor education can impact these aspects as well.

Mental health in children shows differently than in adults. More often a child will show behavior that signifies issues with mental health. The Mental Health of America lists several signs of mental health issues in children, including things like lack of focus in school performance, poor grades, hyperactivity and more. The Anxiety and Depression associated with Americans released that "2.8 million adolescents (ages 12 to 17) in the United States had at least one major depressive episode in 2014."\(^6\) Childhood depression can be difficult to diagnose and to


\(^6\) “Children's Mental Health: Mental Health America,” MHA, 2019, https://www.mhanational.org/issues/childrens-mental-health)
link to certain causes. Therefore, the statistical and quantitative data involving childhood depression is difficult to find and researchers are hesitant to define it. However, physical health and mental health are actually more closely connected than some might initially think. Finally, behavioral issues that can impact a child's success in their education. Although behavioral issues can be linked very closely to mental health issues, behavioral issues have a greater impact on classroom environment and success in school. Some of the more current and popular behavioral issues include hyperactivity and attention disorders. ADHD or attention deficit hyperactivity disorder, is a common behavioral medical condition, that more and more children are being diagnosed with annually. In the Journal of the American Medical Association where they closely followed children for 20 years, it was found that the "prevalence of diagnosed attention-deficit/hyperactivity disorder in U.S. children and adolescents has increased from 6.1 percent in 1997 to 10.2 percent in 2016." Although similarly with Mental Health issues, lack of outdoor education is not the only cause of these disorders. However, the Mayo Clinic lists a way to prevent these disorders as limiting screen time for young children in the first few years of life when development is happening at a staggering rate. Psychology Today published an article in 2004 that found that 7% of children who suffered from ADHD found relief when exposed to the outdoors.

Generally, the treatment for ADHD or other attention deficit disorders is medicating through the use of stimulants. Some non-stimulant treatments can be used, but these still include medicating, either through the form of non-stimulants that take longer to start working or

---

through the use of antidepressants. However, after a large surge of children being medicated for this very issue, some families and researchers wanted to try and find a different method of helping children cope with ADHD. Two researchers in a 2004 study wanted to see the impacts of “greener” or natural settings on children with these attention deficit disorders. Their method for tracking was through monitoring and rating the aftereffects of various afterschool and weekend activities on children with ADHD. Their conclusions were “Green outdoor settings appear to reduce ADHD symptoms in children across a wide range of individual, residential, and case characteristics.” They found that the symptoms were generally decreased by a green setting, even when the activity remained the same across various indoor and outdoor settings. By keeping the constant variable the activity, and the variable the setting, they were able to conclude that having the activities outside was generally what made the behavior shift and move to a less affected by symptoms child.

In another study done in 2009, researchers had 17 children diagnosed with ADHD take 3 different walks, one being a walk in a city park, and the two other being urban street settings. Before taking the walk, the children were given an "attention fatigue-inducing" puzzle. That is, that this puzzle would cause some of the symptoms of ADHD to come to the forefront. After the various walks, the subjects were given a "Digit Span Backward test", which when a child is asked to repeat the numbers given to them by an examiner in the reverse order that they were

---

8 “Attention-Deficit/Hyperactivity Disorder (ADHD): The Basics,” National Institute of Mental Health (U.S. Department of Health and Human Services)

presented. The results were that the children performed significantly better in the park setting.\textsuperscript{10} Additionally, an unforeseen result also showed in some cases the extremely large effect size was similar to Ritalin, a stimulant drug often prescribed for ADHD.

These issues that have arisen due to lack of outdoor play and outdoor education have increased over time. Nature Deficit Disorder is a complex phenomenon that has no exact cure, but rather requires a change in society's view on what is important and necessary for healthy childhood development. Additionally, Nature Deficit Disorder may even be too much of a trendy way to put this extreme issue. We should be calling out these exact examples above as major problems for the youth of today to be faced with a decreased experience and exposure to the outdoors. Nature Deficit disorder does not truly even cover the vast problems that can occur to a child's development over time where there is a lack of exposure to the outdoors. To look at this issue with a more complete lense, we must look at how our society shifted from understanding and appreciating the value of outdoor education to a society that puts less emphasis on the impact of these environments on childhood development. Additionally, there should be a notice of the specific developmental issues that can and do arise with children when this exposure does not happen.

Chapter 2. The Evolution of Children’s Play in the Outdoors

This chapter will explore the unique history of education in the United States. Looking at the history of children and the outdoors is an interesting small piece of our United States history. It's interesting because, for the most part, it is not an overall interesting or surprising historical accounts. This is because the outdoors were so ingrained in everyday life that it's not highly

\textsuperscript{10} Faber Taylor, Andrea, and Frances E. Kuo. “Children With Attention Deficits Concentrate Better After Walk in the Park.” \textit{Journal of Attention Disorders} 12, no. 5 (March 2009)
Going outside and interesting with nature was just life, it was the way people did things. Nothing is surprising about it. People had to spend more time outside because that was where the work was, it was primarily the way people got from point A to point B, and it was frankly the more fun place to be. The outdoors and education of young people have deep roots in this country. Schools often acted as a major way that children would get access to the outdoors. First, schoolhouses in rural areas were generally located in the town center and children would have to find ways to make the trip into town. Horse-drawn transportation, riding via horse, walking into town, or in later years riding a bicycle were common ways children who lived too far would commute to school. However, the commute was not the only exposure to the outdoors children had. Often children would learn about the world or area around them. In the 1800s and early 1900s, it was less common for children to leave the area they grew up in. People tended to stick around in their home town for most of their lives. Therefore, learning about the world around them was important, as many people relied on working on the land as a living and spending a great deal of time outdoors for their livelihood.

Since then, education has changed greatly in the United States. Education now has changed to make children more “citizens of the world” and therefore able to learn about the world at large. There is less emphasis on the immediate area and rather it is important to learn about the world as a whole. Over time there have been evolutions and changes to engaging children in the outdoors. Some would say that as time has progressed, children spend less and less time outside. It’s important to consider the different parts of a child’s life, like school and home life, and how it has evolved throughout time to support exploratory behavior outside and how this has changed or even diminished overtime.
The term "Kindergarten", the foundation and the often first introduction of a child's education in the United States have environmental meaning behind it. The term was brought to the United States in the 1850s. Friedrich Froebel, a German scholar coined the term when he noted the importance of playful learning and a connection to the environment at a young, impressionable age. Frobel understood the importance of nature or 'the garden' in a child's development. The garden was a space for learning and exposure to the real, outdoor, natural world. The first kindergarten was brought and opened in the United States in the mid-1850s, and researchers and scholars saw the lasting effects of outdoor play. After this trial run of this type of education, Kindergarten spread across the United States by the mid to late 1800s. Once it was recognized that this exposure to the outdoors was influential at a young age, it was deemed an important aspect of schooling that should not be forgotten about. As this was happening, the industrialization of cities was occurring at the same time. Quickly, outdoor spaces were being built over and developed to make the major U.S cities that we still have today. In response to that, educators and families started to preserve and create spaces in urban environments that would still provide the important outdoor exposure that these young children needed. Originally called "Sandgardens”, or more modernly known as Sandboxes were created. However, overtime these spaces adapted and would be more modernly recognized as playgrounds.

More and more structures were built, and the era for playgrounds was born in the late 1800s. Many of the roots of modern education have a basis in that natural world and environment. Even traditional education focused more on physical skills that would aid children

in their more physical jobs as they got older. Since then, education has pivoted to a more theoretical approach, with less of the job market being focused on physical, outdoor work. However, the era of playgrounds gave children a space to play and interact that was centered in an outdoor setting, outside of the classroom and the home.

Notes of recess in schools have been noted back to the 1880s. In the American Journal of Play, Anthony Pellegrini cites Herman Ebbinghaus and William James' research in 1885 and 1901 stating "that children learn better and more quickly when their efforts toward a task are distributed rather than concentrated or when they are given breaks during tasks."12 Recess was seen as a necessity for a child's school and was often held twice a day for children to take a break from their studies. G Stanley Hall, an early psychologist did work in the late 1800s that stressed the importance of free time in a child's schedule.

Recess is not the only way that outdoor education made its way into our early American education systems. Outdoor education programs that we know today like Outward Bound and National Outdoor Leadership School began their programs in the 1960s. Part of NOLS's early mission when it began in 1965 was to "promote concentrating on refining outdoor leadership skills"13 The early program set out to teach wilderness skills and responsibility but also realized that these skills could apply to other parts of life. Outward Bound has a similar history, beginning a bit earlier in the 1940s abroad in the United Kingdom, but in later years moved to do work in the United States. Since Outward Bounds beginning their mission focuses on environmental


13 NOLS, NOLS History.
issues and learning while also focusing on individual growth and development of character.

During this time in the 1960s in the United States, Recess and getting outdoor exposure was still a major part of the school day schedule for young children. In a public school in Seattle, school children were given 95 minutes for lunch and recess. Recess and outdoor recreational time was a staple in the American public school system until the implication and importance of standardized testing and school rating became more prevalent in the 1990s.

Cutting of free time and free play in public schools began to get seriously cut in the 1990s. In addition to recess being cut, more technology began creeping into classrooms. Technology here is used as a broad term. Projectors and whiteboards began getting placed in classrooms and the way classrooms operated began to change. Hands-on learning and learning via practice and doing shifted to learning in a lecture type format in early education. Standardized testing began to take the forefront of classrooms. Prep for these standardized testing began earlier and earlier, finally taking home in some elementary education programs. No Child Left Behind Act that was originally passed in 2001 changed how public schools operated and what testing points and academic achievement they focused on. The act began standardized testing in reading and math beginning in 3rd grade when pupils are roughly 8 years old. When testing began to increase in importance, as expected schools began to take away "nonessential" times during the day. This was around the time that the arts, music, physical education, and recess were cut to allow more time for standardized test prep and core curriculum classes. Chapter 5 will continue to explore more into the depth of No Child Left Behind and how it changed the academic lense in the United States and caused a pivot in our education.

---

14 Dornfeld, Ann. "Seattle Kids Used To Get 95 Minutes Of Lunch And Recess." KUOW News and Information.
requirements. No Child Left Behind and other policies that changed children's access to recreational, outdoor time, however, it is important to see the trajectory and sudden change our history took in response to these policy changes.

Chapter 3. Case Study 1 - American Summer Camps

Summer camps are a great example of long-standing traditional programs that have existed and been adapted through the times. As mentioned before, the outdoors is where children learned things for decades and this has only changed recently to pivot to a more technological-based society. Summer camps in more modern times generally have an association with a certain type of programming or specialization. Band camps, drama camps, tech camps, even weight loss specific campers have grown in popularity over the past 20 years. However, traditional summer camps are rooted in the tradition of just outdoor activities, plain and simple. Hiking, canoeing, swimming was and still are considered the most quintessential parts of summer camp.

Summer camps in the United States got their start in the 1870s and 1880s. Summer camps and summer schools were created in a similar vein, to give “natural experience in a natural setting, with overlapping theory for both location and method.”\textsuperscript{15} The American Camp Association, or ACA, recognizes a home school for boys in Connecticut as the first summer camp. In 1861, husband and wife Frederick W. Gunn and Abigail Gunn took the school of boys on a two-week-long hiking, fishing outdoor trip.\textsuperscript{16} This trip became a tradition at the school for

\textsuperscript{15}“Now and Then: Summer and School Camp,” American Camp Association, January 10, 2017, \url{https://www.acacamps.org/resource-library/camping-magazine/now-then-summer-school-camp}

\textsuperscript{16}“Timeline - 100 Year Anniversary of the American Camp Association,” Timeline - 100 Year Anniversary of the American Camp Association (ACA), accessed December 20, 2019, \url{http://www.acacamp.org/anniversary/timeline/}
12 years. Throughout the rest of the 19th century, these camps and outing trips took off with parents and young boys looking for adventure and practical skills. These camps were for young boys looking to experience the rugged outdoors, usually by their parents sending them off to camp. These summer camps were essentially adopted and created to "present themselves as a natural alternative to encroaching industrial society." ¹⁷

*Figure 1. The Gunner Camp testing their equipment before their trip, 1861.*


Summer camps and allowing kids to spend time outdoors was recognized for its importance in 1904 when they received an “intellectual stamp of approval”...psychologist G. Stanley Hall published the book *Adolescence*. Hall argued that child development imitates the historical formation of civilized society. Children, therefore, should spend time in nature, “in this wild undomesticated stage from which modern conditions have kidnapped him.”¹⁹ They should learn to build fires and shelters like the pre-civilized people they were.” These were the types of activities to occur at summer camp. Tent pitching, finding shelter, navigation, these were all popular as they were means of teaching survival skills as well as being a way to “toughen up” the boys. Summer camps eventually take off, in 1900 there were less than 100 summer camps in the United States. 20 years later there were over 1,000.

In the early 1900s, several organizations and associations were developed and created. It was important for administrators and directors of these camps to band together to share ideas and goals for what a summer camp should be. Different Camp Director Associations popped up in various geographical locations in the United States. Also in the 1900s was the addition of girls camps. The Girl Scouts of America was created in 1912 and subsequently starting hosting summer camps for the Girl Scouts Summer Camps in the same year.

As mentioned before, summer camps to change, or at least some of them, have changed greatly from the original summer camp design. Not all summer camps are the same outdoorsy centered programs as they used to be. There are now specialized summer camps in different industries or interests. However, the traditional summer camp is still seen by many Americans as a right of passage and a part of adolescence. The summer camps that are given accolades for

¹⁹ Ibid.
being some of the best summer camps in the country every year are generally camps that have stuck to a more traditional summer camp model. They teach basic outdoors skills, swimming, hiking, among many other activities. Americans still crave and want their children to be exposed to this type of living, even if only for two weeks.

One obvious thing to point out is that summer camp is often a privilege. It would be irresponsible to not point out the fact that summer camps often have a high cost associated with attending. Telling parents to send their children to summer camp will not help or fix anything. However, many modern summer camps recognize this as a problem and have made progress toward providing summer camp and covering the cost through financial aid or full scholarship (known as "camperships") for the entire attendance cost. As is with most things, the cost is always a factor and can be the variable that weighs the most when making a decision to send your child to summer camp or engaging in any type of program.

The ACA has an entire section of their website dedicated to how families can afford summer camp. The section provides different routes families can take if they need financial support to attend summer camp. It is noted that the ACA does not directly support individuals, but rather the organization distributes funds to camps to distribute themselves. The site also notes that many other organizations offer support in local communities. Additionally, the US Government through subsidies that often fall under child care.

Individual camps will have different processes for going about disrupting aid, but often it is a simple application. While this section on the financial aspect of summer camp seems a bit like a tangent, it is important to note that attending summer camp has become a privilege. The ACA, as well as many other organizations involved in summer camps, note that summer camps come in
all ranges and financial costs. Ranging from $100 to over $1000, there should be "A summer camp that fits everyone's needs" but this is not exactly true. Often the children that need financial support to go to summer camp are the children that have the least amount of exposure to the outdoors or natural settings during their school year or time at home. This is why it is important to note that summer camp is beneficial, but only when children can attend. Ability to attend it dependent on payment and financial ability to attend.

Summer Camp is a great example of how through history the exact layout and programming may have changed, but there is still a focus on getting outside and engaging in physical, outdoor activities. These activities are the types of activities that children need to support healthy development, which will be discussed and explored in the next chapter. Summer camp is just one example of a general program that has a history in the United States for providing kids with quality, correctly structured outdoor play.

Chapter 4. The Psychological Development Domains and Outdoor Activities Impact

Childhood is considered the most important time in a human's life for the development of skills, characteristics, and it is a time that builds a foundation for the rest of life. Development in childhood can occur in five domains or streams: Cognitive Development, Physical Development, Social and Emotional Development, Communicative or Language Development and Adaptive Development. If these skills are not met by certain development points in a child's life, serious problems can arise. Many sources state that much of childhood development occurs through play. Some development studies primarily focus on the first 3 years of life, while

others present the developmental milestones from birth up until young adulthood. Each specific area where development occurs is necessary to understand to comprehend the intrinsic value of environmental outdoor education. However, when looking at overall childhood development, it is important to breakdown each individual development domain and what exists within it. Additionally, outdoor activities can have an impact on all categories of development at all different developmental stages.

Cognitive development is one of the more popular development stages when considering how a child is progressing in terms of development and whether or not they are on the right track. Cognitive development involves learning how to think about things, perspective and problem-solving. This stage also involves advancement in memory, an understanding of cause and effect, and simple reasoning. Cognitive development in early adolescents generally is the movement toward more personal expressions and opinions becoming solidified. Many indicators of early cognitive development include expressing personal likes and dislikes, questioning of authority or parental rules. There are actually four stages of cognitive development; sensorimotor stage, which occurs from birth to 2 years, Preoperational stage which is ages 2 to 7, Concrete operational stage during ages 7 to 11 and Formal operational stage, for children ages 12 and up. These stages were created by Jean Piaget because he thought that “intelligence is something that grows and develops through a series of stages. Older children do not just think more quickly than


22 Kendra Cherry, “What Are Piaget's Four Stages of Development?,” Verywell Mind (Verywell Mind, August 12, 2019)
younger children, he suggested. Instead, there are both qualitative and quantitative differences between the thinking of young children versus older children. This means that it's not about learning things quicker, but rather different age groups are exposed to different sensory stimulations that will evoke various reactions at different ages. Cognitive development is about going from sensory recognition, to understanding, to describing and comparing, to more metaphysical ideas. This is movement through knowledge, and much of this development occurs when there is first-hand exposure or physically associated with the learning.

Cognitive development is highly impacted by outdoor play and education. In a traditional classroom setting outdoor play lends a hand for children to get a cognitive break from the classroom setting, getting an opportunity to get a break to allow energy to be burned off and therefore allow a more focused classroom setting post-break. However, cognitive development also occurs through the types of play that occurs in the outdoors. Cognitive development occurs in the three different types of exposure to nature, direct, indirect, and vicarious exposure. Direct exposure is when a child plays in the physical natural environment. This is generally when a child is playing in a strictly outdoor space, that is that there is no man-made structures or materials around them or interacting with them. Consider these activities like going for a walk or hike on back trails, playing in a field, climbing a tree in their yard, etc. This type of play is only specific to the outdoors. Direct exposure is when the activity is limited to the outdoors and nature and could not be performed in another setting. Indirect exposure would be taking part in

23 Kendra Cherry, “What Are Piaget’s…”, 2019

activities that did not necessarily have to occur in the outdoors. Consider things like a barbeque, a picnic, or playing chess in a park. These are all activities that could happen inside by being chosen by the person involved to happen outside. This type of exposure is different because being outside is not the main aspect of the activity, rather it comes as a secondary or indirect circumstance of the activity. This type of exposure is fairly common. It's the type of exposure that happens when many people go outside to get to another location. Most people, even adults, take part in this exposure every day. Going outside to get the newspaper in the morning, or taking the dog for a walk. While these activities couldn't happen inside, going outside is a secondary circumstance to something that the individual already has to do. With this type of exposure, individuals are not going outside just to go outside, but rather to do another activity that just so happens to be in the outdoors. Vicarious exposure to the outdoors does not necessarily even mean that a child is physically exposed to the outdoors or nature. This type of exposure comes from reading books about nature or that take place in nature. Sometimes this exposure can come from talking with parents or friends about nature or the outdoors.

Physical development is generally characteristic by physical changes like weight, growth in height or relation to puberty. These physical changes also apply to motor development and motor skills. Sensory development is also an aspect of physical development, that is the interactions that occur between the mind and body and strengthening those connections. Physical development is highly influenced by a child's physical health, that is if they are getting the proper nutrients, exercise, and they are not getting sick. Physical development ranges from very small, fine motor skills, to a full range of motion, exercise, and children having control over their body.
As for physical development, and the impact of outdoor activities, the impact is fairly obvious. Compared to the other domains of development, outdoor play is a direct link with physical development. The more a child uses their body, the more they develop it and develop an understanding of it. Outdoor play can always be a form of exercise do aide in overall wellbeing and health. Playing outside helps develop muscle groups, improve balance and aid in many other physical skills. Outdoor play can improve health and growth but play can also have an impact on the other aspects of physical development like motor development. Outdoor play generally involves the physical controlled movement of the body which can assist with fine and gross motor development. Outdoor exposure can also aid children to develop healthy routines and hobbies, which can encourage a healthy and active lifestyle from an early age.

Emotional and Social development focuses more on childhood interactions with peers and social groups. In this area, children develop relationships and begin to get an understanding of social roles. This stage also involves establishing and following of group values. In this development stage, some changes can occur that can be indicative of how the child will behave. This development stage focuses more on how children learn and develop with each other, with the group, and with themselves and their thoughts. Additionally, emotional and social development is when a child develops and has a curiosity for their world and their surroundings. They develop a memory of people, places, and things. Much of the social and emotional development is about how children naturally want to behave and what they naturally want.25 Essentially, much of this development is reliant on children getting enough and the right type of social exposure.

In terms of social development, outdoor play and education have vast impacts of this type of development. Many sources are found stating that much of childhood development occurs through play. There are some ways that outdoor play encourages social development, through group games or simple interactions between players, but then there are ways that outdoor play technically encourages social interaction. Navigating social relationships is a major aspect of healthy social development and being outside with peers of their own age, left to their own creativity and choices can foster extremely healthy social relationships and social ability with children. By this, I mean that playgrounds are often designed to encourage one or more users to engage in the equipment. Additionally, outdoor play is generally without adults in close proximately. If you think back to the recess examples in chapter 1, oftentimes recess is lightly watched by adults, but the adults rarely are the ones to engage in play. This means that the primary contributors to play are the other children. This is why unstructured, outdoor play is effective in social and emotional development because most of the contributors and players are children. So children can play and be social with their peers, which fosters sociability, and curiosity that they need for this developmental stage.

Communicative Development, or Language, has to do with a child's ability to understand, comprehend, and produce messages to send in social functions. Communicative development is not just speaking, but ranges in non-verbal cues, language, and more advanced grammar and syntax. This domain, in particular, varies child to child, as children will learn and develop their language skills at different times. An example of this is as simple as a child's first word. One child may say their first words at 18 months, where another may take a bit longer.
Communicative Development is key in a child learning to interact with others, the social world, and express emotions.

Adaptive Development is primarily about recognizing and being able to care for oneself. This is especially important for children to learn so they can begin to do things such as get things for themselves and take care of themselves. When parents let their children cry because “they have to learn to comfort themselves” this is a form of adaptive development. Adaptive development is done best outside because the outdoors are a less sterile environment that what most children are used to. They are generally not in close proximity to adults, so often times children are left to themselves to learn risk and risk management. Children will have to make decisions and deal with the consequences of those decisions. If they get hurt, they must comfort themselves at first and then go to an adult or supervisor.

Although outdoor play and outdoor education are not the singular settings where childhood development can occur, its variety in settings and opportunities for different kinds of play can foster development across a child's overall development. Many spaces foster growth, for different reasons and in different domains. Childhood development is also highly reliant on the interactions between peers and children, rather than interaction with adults. Allowing children to play together in a setting where they are free to make choices; who they play with, what games they play, where they play, and for how long, can be an effective way for children to make their personal choices and decide what they want to do. These choices are what foster development, as it gives children a space to grow and learn from their decisions.
In childhood, there are various milestones that must be met for the child to be developing at a normal, healthy rate. These milestones are rarely the type of milestones that are recognized at the doctor's office, but rather noted when the family of the child notices that they are showing some skills for the first time. Some of these are so common in our culture and are given a high regard and overwhelming excitement when a child does reach them. When a child says their first word, takes their first steps, waves hello or goodbye to someone. These are all major developmental milestones and point toward the child understanding something about our world. However, not all milestones look like this and evoke the same reaction. Developmental milestones can be small and nondescript but indicate that development is occurring at a normal rate.

Chapter 5. Case Study 2- Playgrounds and Unstructured Play

Playgrounds are a unique and somewhat universal setting for childhood development. They are a combination generally, of a manufactured set of obstacles and an organic space with little to no human development of material objects, i.e an open, free space. Playgrounds are unique because they “are outdoor environments where children have more freedom to interact in ways that are largely independent of adult imposed constraints… [playgrounds] allow researchers and practitioners the opportunity to explore child behavior and development as it naturally evolves in the context of minimal adult supervision” 26 Notice that this definition of playgrounds has no rigid definition that involves the characteristics or structures that are necessary for a playground, but rather it describes the context of a playground. A playground

does not need a slide, or monkey bars to be deemed a playground, but rather the structure or set up of the playground must promote unstructured, independent play in an outdoors, connected to nature, setting. Additionally, there are varying models of playgrounds that exist, with positives and negatives attributed to each of them. This chapter will dive into the various types of playgrounds, their benefits, and drawbacks and their relationship to unstructured play.

Dr. Mary Muscari, professor of nursing at the University of Scranton, and author of many books regarding childhood development states the following examples of what children can learn on the playgrounds. Her examples include; “Natural science-experiencing water, dirt, rocks, wind and seasonal changes, Wildlife- Observing birds, squirrels, and chipmunks, Physics-playing on slides, see-saws, swings, and merry-go-rounds, Architecture- Building with sand and blocks, Math- counting and keeping score, and Language development- explaining the rules of a newly created game”

These are just a few of the examples of what skills a child can learn on the playground, but as mentioned before, it should be noted that not every playground is created equal, and some playgrounds put some values above others. There are a few different types of playgrounds, ranging from the following; traditional playgrounds, adventure playgrounds, and natural playgrounds.

Traditional playgrounds are what most people are used to seeing when they think of a playground. Vox Media describes this playground as having three essential parts “There’s usually a slide, a bridge, and a high point with a domed roof” Traditional Playgrounds contain many of the characteristics that we think of when first considering playgrounds. As mentioned before, like

27 Mary E. Muscari, Let Kids Be Kids: Rescuing Childhood (Scranton: University of Scranton Press, 2006), p.157)

slides, bridges, and a high point. However, there are many other characteristics, like see-saws, swings, and climbing walls. There is also a somewhat "sterile" aspect of these traditional playgrounds. They are usually constructed of plastic material, colored in bright, eye-catching colors. Even the surface in which these playgrounds rest upon is manufactured, by either manufacturing wood chips for this sole purpose, or laying down a soft, asphalt alternative.

Traditional playgrounds tend to have a certain "path". It is a predetermined way of navigating the playground or structure. Bars are put up on either side of a walkway to deter individuals playing from jumping over and going off the path. Often this is a safety precaution, as going off the path or jumping from the platform could result in major injury. Even some Aspects of playgrounds have been adapted over time to make risk go down for children when they are playing. For years slides on playgrounds were made using a metal or tin material and have changed over time to be made of heat-resistant plastic. Playgrounds will adapt over time to reduce major risk factors, even if they are parts of playgrounds that have existed for years.
These playgrounds aren't bad by any means, they just try to prevent danger and try to create a safe environment for kids to play in. However, this is not where children learn best. Most children learn best when there is a certain level of danger, fear or uncertainty. These playgrounds have their role, they provide an outdoor space that is safe and allows parents to let their children play without fear that they will get seriously injured. Also, this type of playground

29 “Traditional Playgrounds: PlayCare: Playground Equipment Specialists - Troy Ohio,” PlayCare
is good at fostering children to play together, as there are specific activities designed for several players at once. A see-saw is an example of this, as it needs a child on each side for the activity to function. Swings are also another put next to each other in pairs, which fosters children to talk to each other or be able to "go swing together" despite it being a personal activity.

The problem with these playgrounds at times is that they are too cushioned and there is not enough risk. The playground itself is too manufactured and does not allow a true connection to the environment or nature of the children. The structure is outside, which allows children to get fresh air to break up their day with a break that allows them to get physical exercise and social interaction. However, if you look at the traditional playground in regards to the development domains, it is strong in the physical and social development domains, but lacks a strong cognitive, adaptive and communicative development. Children aren't stretching their minds that far out of what they already know on traditional playgrounds. Many of the objects around them are familiar and they are engaging in the same type of activities, so they are not gaining any new language or descriptions, and they aren't adapting or doing anything in particular for themselves unless they get hurt or need something, which is unlikely on a playground of this style. This playground-style varies greatly from the next playground-style, the Adventure Playground.
Figure 3. An Adventure playground in California, full of tools and unique activities for children to take part in over traditional playground activities.  

Adventure playgrounds are a new and up and coming concept for recreation departments and community groups. These playgrounds are extremely different in comparison to traditional playgrounds because it is a free and open space, with activities that are extremely different in comparison to the traditional playground. An adventure playground is no new idea though. They were originally created in Europe when architect Carl Theodor Sorenson saw that children were

not playing on playgrounds anymore. They were playing just about everywhere else though, junkyards, construction sites, and empty lots. Sorenson then created what he called "Junk playgrounds" Essentially, the play structures- like the slides, bridges and high points in a traditional playground- were designed by the children themselves. They were allowed space and opportunity to be creative and design the area that they wanted to play in. Junk playgrounds were eventually renamed to the more acceptable "Adventure Playground". These playgrounds began to surface in the United States in the mid to late 20th century.

Adventure playgrounds ask parents and children to take a closer look at risk management, controlled risk, and the difference between risks and hazards. In the Vox Media video about adventure playgrounds, Hazards are described as “a rotten branch, is a hazard, the threat is unexpected, but how high you climb is a risk, it’s manageable and requires you to actively make a decision.” Although adventure playgrounds contain objects like barrels, bricks, tools, wood and other construction type objects, they end up being safer than more traditional playgrounds. The reason these adventure playgrounds are safer is that when a child is presented with an object or activity that is serious and can do more harm, they usually approach the action with caution, and ease into the activity with the idea of minimizing risk. However, in overtly safe and structured playgrounds, children will seek out the thrill and risk. This is why you see children often partaking in horseplay on traditional playgrounds. Like hanging from the swings, or jumping of objects that are too high. An adventure playground is now considered "a nightmare for helicopter parents" as they promote and encourage risk-taking. However, these are just the

31 Why safe playgrounds aren't great for kids" YouTube. Vox Media. 2019

32 Ibid.
right kind of skills that our children need to learn and take part in. Allowing children to take part in healthy risk is a major contributor to the development and allows children to learn unique skills that they do not learn in the classroom. These types of playgrounds also increase the number of physical activities that children do when they are in the playground. The landscape of Adventure playgrounds is always changing, so there are always new parts and activities for children to take part in, making them more physically active when they visit these playgrounds. Adventure playgrounds are just a better, more open space that allows children to make their own choices and be better learners and decision-makers.

Natural Playgrounds are a bit different that both adventure and traditional playgrounds. Natural playgrounds are a midway point between the two, Natural playgrounds do not traditionally have the same activities and structures as traditional playgrounds, but there is much less risk involved with natural playgrounds. Many of the structures and aspects of natural playgrounds are just that- made out of natural and environmentally inspired architecture and materials. Large tree stumps, water, grass, and mossy areas are common characteristics of a natural playground. Natural playgrounds are similar to adventure playgrounds and differ from traditional playgrounds in the sense that they do not have a certain path or "right" way to navigate the structure. Rather, it is up to the child how they want to go about climbing on top of the stump or log. If they would rather go around or over an obstacle to get to the next place they want to go to. This is one of the positives of this type of structure. It is free-flowing and allows kids to make a range of low to high risks regarding their playtime.
Natural playgrounds are supposed to emulate a similarity to a truly natural area and setting. In figure 3 above, there is a playground that is mainly created by tree logs placed on rocks. While at first glance this playground looks like it was thrown together with natural resources, it was carefully planned. The logs and rocks are not detached from each other and free-floating. There were proper safety precautions taken just as they are taken in the construction of traditional playgrounds, but this playground is created with wood and rock, unlike brightly colored plastic.

Playgrounds are a great example of infrastructure, space, and concept that is already widely accepted in the United States. However, they are just an example. Playgrounds alone will not alone change the circumstances and opportunities available to children. Rather, playgrounds are a good example of public space that can be used for positive influence in a child's

---

development and life. Building more playgrounds will not solve this problem. Investing in quality playgrounds, and establishing programs that possible go outside the walls of the playground are ways that kids can have more access to the greater world. Convincing schools and parents of completely ditching the traditional school structure to shift to a redesigned school day may be a difficult feat to achieve. But asking people to think more thoroughly about the structures they build for their children, or to try something new when it comes to taking them to the park, may be a small win when it comes to giving children more outdoor access for play.

Chapter 6: Testing Our Kids; Politics and the Power of the World

In our current political and global climate, the education of children is the younger generation has the utmost importance. Countries will compare and contrast how well students are doing in various subjects and comparing the scores globally. For a long time, the quantity of education, which is the mean years of schooling, has been a way to test how good or effective education is in a certain country. However, in more recent years there has been a pivot to look at the quality of education, that is how much of the information is getting ingrained in the student by the teacher. Researchers, educators and policy leaders say that this is the main goal of schooling and should be the way that education is assessed. This pivot began to occur in the late 1990s and early 2000s. Policymakers, academics, saw a need to evaluate how information is retained and known by students. This began a cycle of various worldwide testing including PISA or Programme for International Student Assessment.

PISA was developed and formed in 1997 by the Organisation for Economic Co-operation and Development (OECD). The program "measures 15-year-olds' ability to use their reading,
mathematics and science knowledge and skills to meet real-life challenges”34 The program and worldwide study look at the testing results from 79 different government education departments and the testing is repeated every three years since 200035. The program evaluations testing and cognition but also takes into consideration disadvantaged students vs. advantaged students. OECD has stated that "The goal of PISA is to provide useful information to educators and policymakers concerning the strengths and weaknesses of their country's education system, the progress made over time, and opportunities for improvement."36 However, the United States over the 20 years of their involvement with the study has always fallen somewhere in the middle of the ranking, causing major changes to occur within the United States government to put the country on the right track to maintain a global leader standpoint when it comes to youth education.

The United States Government has had a vested interest in early childhood education and making sure that the younger generations are increasing academic achievement. However, with legislation that positions itself by putting a high value on standardized testing and test scores, there can be some loss in other aspects of a child's development. As mentioned in Chapter 1, the health of adolescents has slowly been slipping in conjunction with the passing of laws that focus on childhood standardized testing.


35 Ibid.

In 1965 President Lyndon Johnson signed into law Elementary and Secondary Education Act (ESEA). The act was a major reform policy that was enacted shortly after Lyndon Johnson's presidential win and was part of his “War on Poverty”. The goal of the act was “to provide additional resources for vulnerable students... offered new grants to districts serving low-income students, federal grants for textbooks and library books, created special education centers, and created scholarships for low-income college students.” For 35 years the act was not changed, but the funding for education increased throughout the years. The update and response to ESEA was No Child Left Behind, introduced in 2001.

No Child Left Behind (NCLB) is a piece of legislation that passed in 2001 under the George W. Bush administration. In 2001 The George W. Bush administration knew that the ESEA had to be updated. The act had not changed since it was signed into law in 1965. No Child Left Behind was a bipartisan bill, and the law had high hopes. This piece of legislation consisted of many aspects that were intended to improve proficiency in schools. So, “Under No Child Left Behind, the federal government required all states to test every student annually in Grades 3 through 8 and once in high school in math and reading and to set annual achievement goals so that 100 percent of the students would be on track to achieve proficiency by 2013/2014.” (Ladd, 2017). The bill was co-authored by Representatives and Senators reaching across the aisle to come to a bipartisan agreement and made it clear that childhood education was important to the United States. No Child Left Behind was co-authored by Representatives John Boehner (R-OH),

Geroge Miller (D-CA), and Senators Ted Kennedy (D-MA) and Judd Gregg (R-NH). The Bill received tremendous support in the United States House of Representatives with a 381-41 vote\textsuperscript{38} and in the Senate an 87-10 vote\textsuperscript{39}. President Bush signed the bill into law on January 8th, 2002.

The upgrade and requirements of NCLB shocked teachers and administrations. The legislation was major in changing the way schools delegated time and funding to certain academic classes, electives, and leisure time for students. One of the primary aspects of this legislation is the focus turning toward standardized testing and ensuring that students were meeting the standard. To receive federal funding, schools and states would have to give assessments to students at different grade levels. This legislation puts emphasis on standardized testing. Additionally, the law put a focus on absolute scores, instead of the progress and growth of students.

Due to this emphasis, “The Center on Education Policy found that in response to NCLB schools shifted large chunks of classroom time to English and math and cut time spent on science, art, social studies and recess/PE”\textsuperscript{40}. In fact, it was found that “approximately 62% of school districts increased the amount of time spent in elementary schools on English language arts and or math, while 44% of districts cut time on science, social studies, art and music,

\textsuperscript{38}(No Child Left Behind [NCLB], 2002).

\textsuperscript{39} Ibid.

\textsuperscript{40} “No Child Left Behind.” Findlaw, 2018, education.findlaw.com/curriculum-standards-school-funding/no-child-left-behind.html.
physical education, lunch or recess.” The subjects and activities that were cut were primarily seen as unneeded or frivolous ways to spend time. Many school subjects were not cut completely, but rather schools focus more time on English and math where science and social studies are taking a back seat to children's education. On the other hand, programs and activities like recess and physical education class and art class simply get funding cuts and therefore the schools have to cut them to allocate more money toward the subjects that their students will get standardized testing on.

As the years progressed, schools and legislators began to realize that there were effects on children's academic success and physical and mental health. The most notable piece of legislation is the legislation that replaced the former No Child Left Behind Act. This piece of legislation is called the Every Student Succeeds Act. This Act was signed into law by President Barack Obama in December 2015. No Child Left Behind was set to be revised and reviewed in 2007, and ESSA was the response to this revision process. Rather than requiring huge standardization and standardized testing, the new act encouraged more equal access to schools for individuals. In conjunction with this act, in 2012 the Obama administration began to grant flexibility to states and school districts in regards to these severe and specific requirements of the NCLB Act.

When NCLB was fully functioning in school systems, there were notable changes with student's and teacher's focus. School systems adapted programs that mainly cute funding and programming for activities that did not directly support students to do better in the general

__________

subjects that they would later be tested on. When NCLB was originally put into action, many individual organizations and programs came to fruition. In addition, there are programs that have been developed in a Post-NCLB world to ensure that there are plenty of programs and opportunities for children to get access to different parts of the world that they are not exposed to in traditional schooling. These independent organizations worked to give students the opportunity to get involved in subjects and programs other than the highly tested subjects, but also encouraged and gave opportunities for kids to get outside.

Some individual states and communities have Safe Routes to School programs. The Safe Routes to School programs are “a federal, state and local effort to enable and encourage children, including those with disabilities, to walk and bicycle to school and to make walking and bicycling to school safe and appealing.” These programs are implemented in different school districts and local communities in the United States. The program operates by getting school administrators, teachers, law enforcement and other active community members work to make the route to school safer for children to take alternative and more active routes to school. This program encourages walking and biking to school for several benefits. The benefits include that walking or biking to school can be a more regular and consistent way to get physical activity. The New York Safe Routes to School webpage even cites that these are studies that show "that physically active kids have improved mood and concentration, a stronger self-image and more self-confidence.” Although this program varies from state to state and some states

---


43 Ibid.
have yet to adopt a program like this, the federal sector of this program offers funding to schools and districts to encourage more outdoor activity. The Complete Streets program is another program that was implemented that does not directly interact with schools and districts, but rather works so streets are more friendly to people and children who want to bike or walk to school. One of the main groups that the program says it wants to benefit is indeed children. By expanding the streets and making them more walkable for children and families, it could help and encourage more active ways of getting to school. While these local programs are supplemental and encourage these types of outdoor activities, state or federal intervention is needed to truly aid in exposing kids to the outdoors.

Specific states have also been champions in intervening at the state-government level to ensure that schools and programs still educate their kids in non-traditional school environments, often in outdoor settings. Minnesota has a "No Child Left Inside" legislation and the grant program was introduced in October 2019. The same day the program was announced at started, the Department of Natural Resources in Minnesota opened up for grant proposals. By 2:30 pm that same day, the department had received 350 proposals and had to close the application.44 Most of the applications were from school groups and nonprofits, and the grants were requested to use to help kids connect to outdoor activities like fishing, hiking, and other common outdoor activities in Minnesota. One Minnesota state senator says that "one priority of the program is to serve children who have limited opportunities to participate in natural resource pursuits."45


45 Ibid.
However, not all states have dedicated as many resources as Minnesota. In 2009, Governor of Michigan Jennifer M Granholm wrote a proclamation about these issues of obesity and limited outdoor time for children. However, the only action in the proclamation was that Granholm “proclaim the week of April 20th, 2009, No Child Left Inside Days in Michigan. I encourage all children as well as adults to take some time and rediscover the wonders of the outdoors”\textsuperscript{46} This type of proclamation is not giving resources or providing programs that actually provide opportunity and access to "the wonders of the outdoors" and rather is a form of greenwashing to show a small dedication to the movement without providing any substantial resources.

Finally, some states have gone as far as to make legislation, not just grant programs and proclamations about giving kids more time in the outdoors. Missouri, Florida, New Jersey, and Rhode Island have mandated a 20-minute minimum recess for elementary students daily and Arizona requires two recess periods without a specific minimum length time. Other states have passed legislation but without specifying recess. Seven states including Iowa, North Carolina, South Carolina, Louisiana, Texas, Connecticut, and Virginia all require anywhere from 20 to 30 minutes of the school day to be delegated to physical activity for elementary students, without any specifics about how that time should be used.\textsuperscript{47}

This unique area and resource of childhood development can be difficult to regulate as it is extremely dependent on geographical location and funding. However, policy and regulations

\textsuperscript{46} “Certificate of Proclamation - No Child Left Inside Days”(PDF). State of Michigan

mustn't inherently hurt this type of programming. Policies that hurt this program are policies that put extreme importance on empirical academic data for the only measurement of quality of education. Legal and federal legislation is needed for schools to be equal access and equal opportunity for children. But it is important to not hyper-focus schools or force districts to place higher importance on standardization of testing and ignore the benefits of outdoor activity for children's development and the ability for outdoor exposure to actually aide with function in schools and academic performance. If policymakers main concern is this empirical data regarding test scores and the United States in comparison to other countries, should look at the following resources; the countries that invest in physical and outdoor exposure for children, policies at a smaller, local level that work in increasing this exposure, and a balance between encouraging and setting a standard for academic performance, while also valuing the child as a whole individual with more than just academic needs.

**Chapter 7. Fixing the Broken and Getting Kids Playing Again**

Outdoor education is imperative to the development of the youth of the world. There is a certain level of organicness to allowing children to play and explore the outdoors. It provides skills that are impossible to learn in the classroom and reinforces lessons that are taught in the classroom. There are various ways to change and reverse the culture we have created, where technology and time indoors have greater importance to outdoor exposure and play. However, navigating this may be difficult in the current climate with a limit in funding and interest in this field. Frankly, outdoor education and exposure are not universally recognized as a foundational and important aspect of a child's development in the United States. Most studies and scholars regarding this rather niche topic are from Europe, primarily Germany and the Nordic regions.
To dissect this problem it is important to first acknowledge that there is a problem and find the source of the issue. As mentioned before, in the late 1990s and early 2000s, there was a rapid pivot in how children played. They stopped. Or at least they stopped doing it in ways that were once "traditional". Playing outside with the neighborhood kids until dark or dinner was read vanished from rural and suburban streets. Instead, kids either turned to technology for play, which does not provide the same mental and physical exertion as outdoor play, or they became too focused on schooling, superficially certain subjects that they would be tested on in school.

My recommendation first and foremost would be for schools and programs to scale back on core curriculum focus and offer a more holistic teaching method. More after school programs-and during school programs that offer the time and space where children can get exposure to the outdoors would be beneficial in all the areas that a school wants to improve. While making recess a state law and creating after-school programs are ways to subsidize this problem, there are more effective and beneficial ways this problem should be addressed.

Experimental education has been mentioned a few times in this report, with little to no further explanation. That is because the studies and focus are not on experimental education. Experiential learning is a philosophy of teaching that has existed for quite some time and is rooted in learning and education being rooted in memorable concrete experience. Experiential education or hands-on learning is when teachers take the subject they are teaching to the real world. As mentioned in the introduction, for a high school science class I did species studies in a pond that was on my high school's campus. That is experiential education. Using local resources and spaces to teach a subject. Integrating outdoor exposure into already existing lesson plans can both strengthen the message of the lesson while also providing important outdoor time. In fact,
linking lessons to real-world concepts and places often strengthens the learning outcomes and makes kids retain the message and lesson better than if they just learned it in a classroom.

While summer camps are great, again, they are not the single answer to this problem. They can help aid and supplement solutions, but just spending every kid to a summer camp will not fix this cultural issue. Every child is different and every child needs a unique solution to this problem if they are unfortunately exposed to this culture of the outdoors not mattering.

Reimplementation of things like recess and outdoor play should be the secondary concern and focus of American public schools, behind implementing experiential education programs and classes. If the school's main concern and the argument are that they need--and have to-- maintain high test scores, they should return to a system of work, leisure, work. Leisure time allows children to digest the information they have been taught and gives them a mental and physical break from the material so they can come back stronger for the next lesson. In fact, a study done in Denmark found that throughout the school day student's performance, scores, and attention would start to dwindle. However, after 10 am and 12 pm test scores would boost back up, notably, this was immediately following the student's break time.48 This should be motivation enough for schools and administrators to implement better outdoor education programs, if kids perform better, wouldn't a school want them to?

Another alternative is the education of parents and family members. Parents often know that outdoor play is important, often they are not aware of the degree can serve and how beneficial it could be for their kids. In our modern era, there is so much ease as a parent to offer

your child an iPad with apps and programs that will teach them important life skills. What their app and programs are forgetting is that children thrive when left to their own devices to teach themselves these skills. Instead of teaching valuable development skills like problem-solving and socialization online, these are skills that could be easily nurtured by independent play with peers. This could involve a restructuring of many things, like neighborhoods and areas having spaces where families could go for outdoor play and giving parents time and resources to spend more leisure time with their children in this way. Again, these are the types of solutions that would come with a culture change to focus more on this problem of limited time and resources for outdoor leisure time.

No Child Left Behind should still be considered a dangerous piece of legislation, that shifted the focus of teachers and administrators to the wrong idea and children are suffering due to it. While some of the repercussions of the No Child Left Behind still exist today, it is important for schools to continue to provide ways that teachers and educators can supplement their classes with genuinely useful lessons and education for their students.

For the time being, the United States federal and state governments should continue to give grants and funding to outdoor programs, treating it as an urgent matter for our youth to get this outdoor exposure. Minnesota's grant program is a great example of local state government supporting endeavors that give these opportunities for youth, without having a hand in what these programs are or the goals of it. This allows freedom for individuals to run different specialized programs that suit their interests and that can cover a wide range of activities and interests to get every child of the community involved in the process and the outdoors.
For this problem, there is truly no one solution, there is no quick fix. This problem requires a culture shift in the United States to refer back to a time where the outdoors was where you learned quality skills. This problem cannot and will not be solved overnight. However, if we educate the people that children spend half their day with, on the importance of getting outside and learning skills, we can potentially change the culture to create a more outdoor-focused culture. The programs and schools must change, that is, there should be more implementation of recess and free play, more classes should bring their lessons outside (if it truly applies to the lesson itself) and children should get more involved with after school programs that promote learning and outdoor skills in their free time. However, instead of just looking at where they can add programs outside of the classroom, educators and parents should look to the opportunities that the outdoors can provide. Math and physics classes can go outside to learn about algebra when kids drop an object off of a building. Science classes can do biological research in the outdoors that directly connects to the chapters they are studying while potentially providing information about the area. Even literature classes can go outside for writing exercises to give them a free, open, fresh air space to clear their heads.

But it's not just academic classes that could use the space to do better when it comes to America's children. The outdoors provide a classroom for all types of activities to be strengthened Teaching quality skills in the outdoors, like care and respect for the environment through education in Leave No Trace. It's lessons like teaching kids to be creative and find their own ways to play and be imaginative in an outdoor space that does not have strict guidelines on how you can play. The outdoors is still one of the few places in a child's world where there are freedom and free space to make choices. David Sobel, an American author, and professor who
has long supported the idea of place-based education once said "Children more than ever, need opportunities to be in their bodies in the world – jumping rope, bicycling, stream hopping and fort building. It's this engagement between limbs of the body and bones of the earth where true balance and centeredness emerge." It's up to us to continue to let kids be in their bodies in the world and restore the opportunities they have for stretching their wings.
Bibliography


New York State Department of Transportation. "Department of Transportation." Standard Sheets


Reese, William J. *America’s Public Schools from the Common School to ”No Child Left Behind.*


“Timeline - 100 Year Anniversary of the American Camp Association.” Timeline - 100 Year Anniversary of the American Camp Association. ACA. http://www.acacamp.org/anniversary/timeline/.
