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## **Parks and Education**

Carson Law

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## **PARKS AND EDUCATION**

By

Carson Law

A capstone submitted in partial fulfillment of the requirements  
for the degree of Master of Arts in Education: Natural Sciences and and Environmental  
Education

Hamline University

Saint Paul, Minnesota

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## CHAPTER ONE

### *Introduction*

Parks and education have a substantial correlation. People of all ages, from young to old, learn from their surroundings by spending time in parks. Public parks can play a significant role in a child's education, offering a place of learning and free play simultaneously. It can be as simple as using an identification guidebook or attending a naturalist program. In other cases, public schools have a strong outdoor education curriculum built-in, and some schools take it a step further by working with local parks and having full-time classrooms based at local parks.

Nature-based charter schools are nothing new, but with the Covid-19 virus and the push for environmental learning, more and more public schools are turning outside, to their local parks. Public parks can play a significant role in a child's education, offering nature-based schools and field trips. This exposure to the outdoors is a common reason people pursue careers in environmental education and related fields. Many will express that they had a positive memory in a public outdoor space growing up, and want to preserve these areas or help create positive memories for children in an outdoor setting (Personal Communication, 2018). Community resources such as parks and recreation departments can provide positive experiences through field trips, naturalists attending school classes, or even the maintenance of public parks for people of the community to use.

Outdoor education provides children with opportunities for positive experiences in public outdoor places. Studies also show that outdoor education is critical for students

to experience as it can meet education requirements in all subjects, such as math, English, and history, and help the students develop much needed social skills (Deines, 2022).

Students build communication skills and critical thinking skills through outdoor education, in addition to better regulation of emotions. Students with special needs, such as ADHD or autism, have seen significant improvement when placed in an outdoor education program (Morsanuto, 2023). These improvements are crucial because students are allowed to problem solve with one another, do risk analysis, and fail within a safe environment (Morsanuto, 2023). However, only some children have open access to quality outdoor education for many reasons, such as finances, living in an urban setting, or physical or mental disabilities. While outdoor education can be a great equalizer for children and place them all on the same level, using parks and recreation resources can be a great equalizer for outdoor education learning (Becker et al., 2017). My capstone aims to answer this research question: *How can outdoor education be more accessible through parks and recreation?*

### ***Professional Background***

Professionally, I have been working in parks and recreation for five years; I have worked for both city and county departments. Before working in parks and recreation, I worked at summer camps for four years and at campgrounds for three years. Most of my adult working career has been in an outdoor-related field. My education and career goal has been to make outdoor recreation and knowledge more manageable for kids and adults to understand and to create better access for those who may not have had those experiences. Within my parks and recreation career, I have seen this as the field that can make that happen. Many parks departments have connections with environmental

agencies, such as the Minnesota Department of Natural Resources (DNR) or Minnesota Trout Unlimited—a nonprofit organization that focuses on bringing fishing skills to schools and the public through organizations such as Parks and Recreation. Several parks departments have a naturalist on staff (either on the natural resource side or because they operate a nature center); most county parks departments do. If the parks departments have these resources, they offer the services for little to no money. Currently, in the positions I am in, when working with public schools or homeschooling cooperatives, we charge a very reasonable fee of \$35 per hour. This allows schools and private groups equal opportunity for outdoor education. Wright County Parks and Recreation is not the only department that offers these resources. The Minnesota DNR offers a magnitude of different resources, and Anoka County Parks also offers outdoor education resources for similarly reasonable fees. These are just a few departments and organizations that all work to create a more equitable parks and learning system. Additionally, many county parks departments offer “Environmental Education Days,” which tend to be a partnership program with the parks department and the local Water and Soil department. The purpose of these days is to give elementary-age students a better understanding of the environment and what different jobs can be found in this field. Schools can connect with their local parks department to provide these experiences to their students.

Early in my college career, I attended the University of Minnesota-Duluth and took a course on Technology in the Environment. In the first few days of this class, we had to create a presentation about ourselves to get to know each other. One of the questions we had to answer was why we were pursuing the field of environmental education. What I noticed during each presentation—including my own—was each person

in the class talked about a significant place in nature where they spent time in their youth: a natural place where they felt safe and could explore the natural world to their complete contentment. These areas ranged from state parks to grandma's backyard, but the effect was the same. In that class, I knew that I wanted to devote my career to creating these almost magical experiences in nature for kids. It's in these small moments that significant changes can happen, and those kids could go on to become environmental scientists or simply grow up with an appreciation for the natural world. That simple question started a long journey to understanding the importance of parks and education and their societal role.

### ***Rationale***

This rise in popularity and the proven benefits begs the question of what populations are best served by nature-based schools and whether outdoor education is truly an equalizer. Outdoor education and nature-based schools only serve those of middle-class financial standing and those of white race (Deines, 2021). A study done by Natural Start Alliance in 2017 of 121 nature preschools in the USA shows that 3% of outdoor preschoolers are Black or African American, 7% are Hispanic or Latino, and less than 1% are of Indigenous descent (Merrick, 2016). Clearly, not all outdoor education programs serve all socioeconomic and racial populations equally. Another disparity among outdoor education students are low income families who lack the time and resources to allocate energy towards outdoor education. A large part of this is due to many outdoor education programs being private with a high tuition fee or, if at a lower cost, only offered on certain days a week, and thus incompatible with the needs of two full-time working parents (Merrick, 2016). One positive societal change following the



pandemic is that more public schools than ever offer outdoor education options or are more open to incorporating outdoor education into the classroom. This provides an opportunity for all students to experience outdoor education regardless of background.

How can park departments help meet the needs of students and schools? Many county parks and recreation departments offer more outdoor education programming for children and families, from homeschool days, preschool hours, and after-school clubs that emphasize outdoor learning and play. Parks departments can also apply for grant funding for outdoor gear, equipment, and programming, which can be brought to schools for the students to use. Many nature-based schools service early childhood to elementary students. Middle and high school students, however, are often overlooked (NAAEE, 2017). While working with schools, parks can offer field trips and teen days that solely focus on the needs of 12 to 18-year-old youths. Many parks also house nature-based schools, such as Monticello Nature Based School, which operates through public schools at Bertram Chain of Lakes Regional Park (Berg, 2022). According to the organizers, this school goes from pre-K to 5th grade, and is the only one of its kind in the state for upper elementary (Berg, 2022).

Parks can help support educators and students in many different ways; the most significant benefit is that they can bridge the gap in diversity and inclusion. Parks can work around the system and provide resources, for example, track chairs for people with walking disabilities. They can also create a sense of community, where people from different backgrounds can come together and recreate.

Nature preschools, which offer a stepping stone into both traditional school and outdoor education, can be very hard to access if you are a person of color. A 2017 study

done by Natural Start Alliance of 121 nature preschools in the USA showed that 3% of outdoor preschoolers are Black or African American, 7% are Hispanic or Latino, and less than 1% are of Indigenous descent (Merrick, 2016). Low-income people in inner city areas have fewer resources dedicated to nature-based schools and programs.

Parks departments can be the bridge between schools and outdoor education and experiences. The hardest part of getting schools to use parks is getting them connected. Once schools contact a parks department, resources such as track chairs, archery equipment, inclusive playgrounds, ice fishing, to name a few, become much more realistic experiences at reasonable prices. Even within inner cities and lower-income areas, parks departments can help students gain lifelong positive experiences.

### ***Project***

For the capstone project, I will create an online environmental education resource for students, educators, and anyone interested in using it. The benefit of this website is that anyone can use it, this resource can reach students state or nation wide. The focus will be on the four different biomes of Minnesota: coniferous forest, deciduous forest, prairie grassland, and aspen tall grasslands. Each of the biomes will have three to four different lessons catering to that biome. For the coniferous and deciduous forests biome, a tree identification lesson would be available that would give the students a *Guess Who?* game to help better identify different trees, followed by outdoor exploration with a few parks they can best use for this lesson or visit after class. The lesson and resources are free to use, bringing access to areas that lack funding to bring in a naturalist or go to a nature center.

This lesson also brings in a sense of community as the students can connect what they learn to what they see in their day-to-day lives. This connection can be lost when schools attend ELCs in different parts of the state with a biome different from the one they live in.

### ***Summary***

Chapter one gave my personal and professional background on this topic and introduced basic information on nature schools, their benefits, and the benefits of parks. This chapter also covered the Capstone project that will coincide with the research question. Chapter two will provide in-depth research on outdoor education, the benefits of outdoor learning, and what resources park departments have to offer schools and the general public. Chapter two will also discuss the financial needs and what grants or funding that are available for the schools and parks department to utilize. In chapter three, I will discuss the capstone project website, accessible lesson plans, and supplementary resources.

## CHAPTER TWO

### Literature Review

#### *Introduction*

When researching to answer the question: *How can outdoor education be more accessible through parks and recreation?* several themes became apparent that needed to be explored in more depth. The first theme was what outdoor education entails and how nature, adventure, and outdoor education can benefit school-age children and connect them with local parks and recreation. Second was accessibility and its relationship with parks, recreation, and schools. Thirdly, how parks and recreation can benefit school-age children with more accessible outdoor learning. Many schools are well-funded and can offer their students proper outdoor education resources, but is traditional schooling the only way to make outdoor education more accessible? This capstone seeks to answer whether there is equality across the board within the current resources within schools and, if not, how parks and recreation can bridge that gap.

Nature play is a given right for all human beings. Many parks are free and accessible for most by design. At a certain age, many people bring their children to parks and playgrounds for free play. For many kids, this is the first introduction to parks and nature play. Outdoor learning takes all shapes and sizes when exposing kids to the outdoors. Nature play is a fundamental learning block of outdoor education, and creating equal access is critical.

As chapter one mentioned, outdoor education is essential to students' well-being. It helps students engage with their learning materials and connects them to people and places in their community. To answer this thesis, we must understand outdoor learning

and the complex history of outdoor education in parks with school-aged youth. Once we better understand this history, we will understand the importance of outdoor learning for students, the critical role outdoor learning and parks play in our society, and how—throughout modern environmental history—parks and education have been complexly woven together. Nature-based education can connect students with the community within the walls of a school or without. This chapter will focus on what community resources are available to benefit k-12 learners.

### ***Outdoor Education***

Outdoor education is a form of experiential learning that allows students to engage in hands-on experiences with the subject they are learning about (James & Williams, 2017). These subjects are primarily environmental-based. For instance, if the students are learning about ecosystems, they may create a miniature forest in a jar or visit a local park to gain practical experience that complements their learning.

When discussing outdoor education, we focus on its two sections: environmental education and adventure education (Veletsianos, 2017). Environmental education, the more widely accepted section of outdoor education, allows people to engage with the environment, explore environmental issues, and learn by doing (Sobel, 2013). This is displayed with simple hikes with identification guides or through guided hikes, such as fungus classes. Adventure education is learning through adventure-based experiences, including kayaking or rock climbing. Both experiences for k-12 learners are crucial; environmental and adventure-based learning promotes better critical thinking, understanding, and social skills (Smith & Sobel, 2010). Environmental education and

adventure education provide different skills and experiences beneath the umbrella of outdoor education that both benefit students overall.

*Nature Deficit Disorder* is a condition coined by Richard Louv in which people, mainly children who spend little to no time outside, begin to show signs of physical, mental, and behavioral problems (Charles & Louv, 2009). *Nature Deficit Disorder* has been on the rise since the COVID-19 pandemic, which caused most of the population to be indoors and required classrooms to go strictly online, which in turn caused a rise in mental and behavioral issues. (Charles & Louv, 2009) The pandemic also caused a hindrance to outdoor education programming, which for some children is the only opportunity they have to engage in outdoor education. As Richard Louv stated in his study, people, primarily children, need to have time outdoors or they experience a negative effect on their moods and a decrease in their understanding of the world. In or out of the classroom active learning is more memorable and can be committed to long-term memory (James & Williams, 2017).

Along with the issues of ever-changing landscapes, urban environments need to create proper nature spaces for people to congregate and learn in, though the same is true for rural areas (Charles & Louv, 2009). Students living in rural communities are seeing a rise in farm space, not open outdoor space, and lack of community supervision shows that rural students are participating in fewer outdoor opportunities, a recent change (Charles & Louv, 2009). This puts all students at a disadvantage in outdoor education experiences. If both urban and rural students are struggling to get sufficient access to green space and outdoor learning, they will lose out on the benefits outdoor education has to offer.

### ***Environmental Education***

The aim of environmental education is to make students environmentally literate on current environmental issues, improve skills in observing and understanding their surroundings, and boost critical thinking (Yang, Wu, Tong & Sun, 2022). Additionally, exposure to outdoor education promotes positive environmental ideas and behaviors for individuals (Cho, 2018). Environmental education also helps learners have a physical basis to ground their learning on real-life issues.

Environmental education also helps with students' grades and behavior (Sobel, 2013). Its focus on hands-on learning builds skills, such as knot tying, and being physically immersed in the lesson allows the students to fully take in and process the information (Sobel, 2013). Environmental learning also enables students to be on an even playing field. One study was done in 2018 by the Wildlife Trust Youth Well-being Team, and tracked eleven students aged three to five to see how environmental education as the base curriculum affects the student's academic standing, well-being, and connection to nature (Merrick, 2018). Merrick conducted a mixed-method study using a child-centered mosaic research approach. They found that the eleven children improved their reading, writing, and mathematics scores considerably compared to their peers in a “normal” school setting (Merrick, 2018). The students’ writing improved by 18% compared to the previous year, and reading and mathematics improved by 27% (Merrick, 2018). Merricks’ study is essential in showing that nature-centered education can positively benefit a student’s education to the point that their grades significantly improve. It is true that only some schools can incorporate a nature center curriculum full-time. Connecting

to local resources like parks and recreation, however, can provide an easy and low-cost nature-based curriculum to benefit students and teachers.

As for the student's behavior, the researchers and educators saw huge improvements within the first year. Students became more trusting of teachers and adults. Students also became more independent and showed better emotional self-regulation (Merrick, 2018). By the second year, students noted that being outside helps regulate their emotions inside and outside of school. Students noted that if they were angry and went outside, they would calm down and be better able to express themselves (Merrick, 2018). This study shows that the better access students have to environmental education, the better its benefits are.

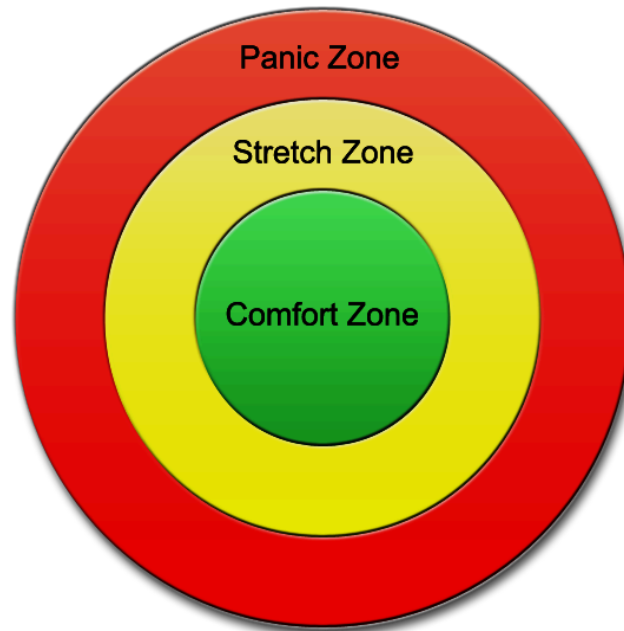
Environmental education allows children to build skills that will benefit how they move throughout life (Sobel, 2013). Only some children have the luxury of having an environmental education curriculum in their schools or being able to attend a forest school, and as was discussed previously, students in urban or low-income areas often are precluded from these experiences. Community resources such as the Parks and Recreation Department or the Department of Natural Resources can help bring environmental education to students in these areas.

### ***Adventure Education***

As previously stated, adventure education can promote learning through intense outdoor experiences (Veletsianos, 2012). It can promote interpersonal development through practical, encompassing outdoor activities (Down et al., 2023). Adventure education also supports children's emotional, physical, and intellectual growth, giving them a candid attitude toward all aspects of life (Veletsianos, 2012). Adventure education



experiences can be categorized as kayaking on lakes or rivers, camping in campgrounds or backcountry camping, mountain biking, skiing, and snowshoeing across the winter landscape (Down et al., 2023). Most importantly, it allows the person to experience new areas of the world and grow in confidence. A fundamental philosophy of adventure education is pushing people out of their comfort zones and into their stretch zones, in which they stretch as learners and gain new experiences. The graphic below shows this (Asher, 2023):



(The Comfort Model Zone, 2016)

The Stretch Zone is where people learn and grow; taking part in an unfamiliar activity, such as rock climbing, forces students to solve problems, control their emotions, and conquer fears (Asher, 2023). Even within schools, children snowshoeing around their school during the winter forces them to problem-solve, manage their emotions, and

confront fears of the new experience. Their comfort zone becomes wider once they have concurred with the stretch zone. The goal is to never let people enter the panic zone, as that is where people become too overwhelmed and will always have negative emotions associated with the adventure education activity.

Adventure education provides other positive benefits to individuals and groups regarding social emotional learning. In a study conducted in 2020 with Outward Bound—an outdoor adventure organization—focused on 35 middle school and high school-age students engaging in adventure education challenges. The students showed significant growth in their emotional learning following their experiences (Orsen et al., 2020).

Adventure education provides empowerment for students as they have control—possibly for the first time—over how to approach challenges (Down et al., 2023). Adventure education also allows students to build necessary teamwork skills, as students help each other succeed in large group challenges (Orsen et al., 2023). Even with anxiety-inducing experiences, groups tend to create a positive group culture and build skills in persistence (Meerts-Brandsma, 2020).

The benefits of outdoor education through its adventure and environmental education branches are crucial to the development of a child. Understanding each of these branches will help us explore how these experiences need to be accessible and *how outdoor education can be more accessible through parks and recreation.*

### ***Accessibility***

Only a tiny portion of the population can enjoy all the fun and exciting recreational opportunities parks offer. Cultural preference, affordability, and

discrimination play significant roles in park attendance and parking in recreational opportunities (xing-ju et al., 2019). In order to make parks and recreation more accessible, resources must be more easily attainable by the masses. Many believe parks are for everyone and do not discriminate, but that statement is incorrect. While parks can be free to visit, there are many factors to consider: for one, the amount of available leisure time an individual has (Xing-Ju et al., 2019). Transportation can also be a significant factor in if and when someone visits a park or attends an event; if a person is dependent on public transportation as their means of mobility, they are therefore wholly dependent on the bus routes and schedule, which will determine if they can visit a park and for how long (Weber & Sultana, 2019). The socioeconomic constraints of time and distance are significant parts of why parks may not be accessible (Xing-Ju et al., 2019).

Socioeconomic constraints affect not only who can go to a park but also the parks themselves (Engelberg et al., 2016). If the community is a lower-income community, the parks may also suffer in diversity, and not just people, but of plants and beauty (Yücedağ et al., 2023). Beauty and amenities are what draw people into the parks. If the parks' shelters, bathrooms, and vegetation are lackluster, people will be less drawn to them (Engelberg et al., 2016). This is important when discussing accessibility, as many lower-income communities lack suitable parks for community members to utilize (Yücedağ et al., 2023). Lower-income communities can also lack public transportation and have higher minority communities (Weber & Sultana, 2019). At the same time, middle and upper-class communities tend to have more agreeable parks. A challenge of privilege is that it's not a physical object that can be held, which causes many individuals to struggle to recognize systems of privilege (Meerts-Brandsma et al., 2020). This

difference can cause a significant disparity between those who are attending parks and programming. Everyone deserves access to acceptable parks and outdoor services. Parks and recreation departments can be the driving force behind that change locally.

Another aspect of accessibility is physical accessibility. Playgrounds have limited handicapped options and even fewer options for those who have Autism or other needs that differ from the average park goer. All of these factors can make recreation and outdoor education hard to access. Having an accessible park space, however, creates a sense of community, where people from all different backgrounds can come together and recreate. The City of Tulsa is an excellent example. The city parks department and community members built an all-inclusive playground, created with a unique design (Gulfand, 2022). The playground was made considering the needs of children with disabilities first. In planning many playgrounds, meeting the Americans with Disabilities Act (ADA) requirements is the bare minimum (Gulfand, 2022). This playground caters to people of all abilities. As Tulsa Parks Director stated, “The entire playground has been designed to give every child, whatever their abilities, a way to engage, to play, to whatever level they are comfortable with or capable of” (Gulfand, 2022).

Nature-based schools are excellent but struggle with inclusivity and accessibility as well; on the same note, it should not fall on the individual teacher’s shoulders to provide a quality nature-based curriculum. Parks departments have the resources and expertise for outdoor learning that can be built within a curriculum within a traditional school. As stated earlier in this review, outdoor education can significantly increase a student’s scores, as seen in the Merrick study. However, this is seen across every study looking into the academic benefits of outdoor learning. Another study done in a rural

elementary school in Tompkinsville, Kentucky, shows an increase of 25% in science and a 40% increase in social research (Sobel 2013). A study done in an urban middle school showed that 95% of 8th graders had a passing score, whereas another middle school in that area (that did not focus on outdoor education) had 65% of 8th graders with a passing score. It does not matter if a student attends a school in a rural or urban area, or even what age they are; outdoor education curriculum on any level has a significant positive academic impact (Sobel, 2013).

Creating parks and recreation services that can meet the needs of the masses is no small task. There are small, but powerful ways parks can become more open and inclusive for their community, from upgrading trails and facilities to meet ADA needs, to facilitating conversations with minority groups to make their parks and programs more open and welcoming to all. Cultural identity can be why people may not go to local parks or partake in outdoor recreation. People who are African-American or Indigenous Peoples can view outdoor recreation and parks in a different light than people who are Caucasian (Weber & Sultana, 2019). While white park goers see parks and recreation as a fun pastime, African Americans and Indigenous peoples can see these places and be reminded of servitude and generosity (Weber & Sultana, 2019).

### ***Health Benefits***

Time spent in outdoor spaces can have a positive effect on students' health as well. A study by Mutz in 2016 focuses on how outdoor education can impact mental health in adolescents. As defined by the World Health Organization, mental health is the absence of mental disorders or the mental resilience to stress and adversity (WHO, 2002). Nature education has shown to be an excellent equalizer for students; if a student has

mental health issues such as depression and anxiety, being outside and on the same level as their peers helps boost confidence and relieve some of the mental pressures students face today (Decker, 2021). Engagement in nature can create an inclusive sense of belonging in outdoor spaces, giving students the proper skills to prevent wellness disparities in addition to coping mechanisms for dealing with ongoing mental health issues (Cohen et al., 2022). One study conducted to see the effects of regular classes in outdoor education showed that when students took gardening classes there was an increase in the ability to create trusting relationships, which turned to higher self-esteem for those students (Becker et al., 2017). When students have higher self-esteem they perform better on exams (Cohen et al., 2022)

In our daily lives, we experience stressors on many levels. Adventure education can bring people into new stressful situations, but after mountain biking, for example, many people report feeling less stressed than when they started (Mutz, 2016). Gender identity is a significant stressor for students contemplating how they fit into society and can cause a great deal of mental health issues for teens. Students in nature-based schools as well as schools with established nature education curricula feel they have more freedom and space to explore who they are without the judgment of their peers (Decker, 2021). This is also a benefit because it generates comradery among peers and positive memories of the natural world and one's belonging in it.

### ***Parks and Recreation***

The history of parks and recreation and outdoor education go hand in hand. From cavemen figuring out what plants and animals were useful to modern naturalists and biologists today, environmental education has been around since the dawn of time. This is

because environmental education at its core is learning about the natural world. The first public park in the United States was Boston Commons, established in 1634 (Boston, 2016). Even before the U.S. was a country, we created public outdoor space. Yellowstone National Park, one of our more well-known parks, was established in 1872 (Wintheiser, 2020). In 1883, the Minneapolis Parks Board was established, the first of its kind (Wintheiser, 2020). The cause of this sudden interest in creating parks and preserving natural landscapes was partly due to the Industrial Revolution. With the modern change to the work week for factory workers of only 8 hours a day and child labor laws established, there was more time and freedom to recreate (Shultis, 2001). Outdoor leisure had become a commodity for the masses, not just the wealthy (Shultis, 2001).

Recreation and learning have a long history in the United States. The 19th century shaped and reformed recreation during the high tides of industrialization and urbanization, and the main focus was on nonwork activities to improve health (Godbey, 2004). Some parks in the United States are only a hundred-plus years old, making them relatively new, taking off in the 19th century with the establishment of National and State parks (Demartini, 2021). While there was a significant benefit for people of all financial backgrounds now that they could partake in leisure, many parks were segregated until the 1940s, and still today, people with mobility issues struggle to gain equitable access to parks (Demartini, 2021).

Parks and Recreation departments are responsible for providing recreation services for their community (Risisky & Macgregor, 2022). Each department is responsible for discovering its community's needs and providing those services, as each community is different. Parks and recreation departments' sole purpose is to provide

opportunities for members of their community to participate in both active and passive recreation during unobligated nonwork leisure hours (Godbey & Mowen, 2010). Since parks and recreation departments' sole focus is to cater to the needs of their community, these departments have better access to funding. They can provide materials needed for outdoor education on a larger scale than a school or an environmental learning center (Godbey & Mowen, 2010). The parks department budget is correlated with local taxes. Outside funding through grants can be an extra source of funding for equipment (Onceseu, 2019). With the department's average allocations of budgetary spending, parks and recreation departments can gain grant-based contractual relationships with other agencies (Romamk, 2018). Departments generally have one or more grant-funded contracts at a time with state, federal, and occasionally private or nonprofit organizations (Collins & Gerber, 2008). These funds are allocated for trails, structures, and equipment that benefit the department and the community. Benefits from grants can be seen in actions in Duluth, whose city parks and recreation department secured a grant to create a mountain bike class for youth ages (Ulman, 2023). This grant was awarded through the Greater Minnesota Parks and Trails Commission, and the grant gives the department funding for bikes, accessible bikes, and instructors (Ulman, 2023). This is a massive opportunity for the kids of Duluth, as mountain biking is an expensive sport, and this grant-funded opportunity breaks down that barrier.

Parks and recreation departments offer a multitude of resources and opportunities for the community. The next part of the chapter will go deeper into funding and how parks and recreation departments use different resources and implementations to benefit the community while connecting students to nature.



### ***Parks and Education***

With the information presented on the benefits of parks and recreation departments, benefits of outdoor education—whether it be adventure education or environmental education—along with health benefits, we still must answer the questions of why group parks and education together and *how can outdoor education be more accessible through parks and recreation?* The critical point to remember is that it does not matter if the student attends a school in a rural or urban area or what age; an outdoor education curriculum on any level has a significant positive academic impact (Sobel, 2013). This positive academic impact can work within a parks and recreation department through community offerings. Being a public service can also help break down barriers that make outdoor education less accessible.

Finances, time, space, and understanding are some of the biggest hurdles for people to overcome regarding parks and outdoor education. Financially, funding outdoor education can be challenging for schools or homeschool cooperatives. While teachers agree that outdoor education is an integral part of a student's education, a study done in 2023 focusing on teachers' use of outdoor education in regular classes globally found that teachers struggle to implement outdoor education curriculum regularly due to lack of time for organizing this endeavor, little financial support, or that teaching outdoors would require more work than teaching in the classroom (Borsos et al., 2023). The study shows that teachers would gladly have outdoor education as part of their regular curriculum without these barriers.

The Minnesota DNR has become a natural resource education outlet by offering outdoor education programs in the parks, outdoor education training for educators, and

grant opportunities to help make outdoor education more accessible (Natural Resources Education, 2023). The most notable training in Minnesota educators can take through the Minnesota DNR include Project Learning Tree, Project WET, and Project Wild (DNR, 2023). Each of these trainings is centered around different elements of the environment, has teachers complete the workbook, create lessons, and at the end, they can take home the workbook that contains lesson plans and ideas that focus on the environment. Project Learning Tree is centered around tree education and has lessons and activities for students from kindergarten to 12th grade (Natural Resources Education, 2023). Project WET is water-based education that covers water cycles, aquifers, animals, and organic materials that rely on water for life. Project Wild has lessons around wildlife (Natural Resources Education, 2023). These are accessible resources for educators to use as part of their day-to-day curriculum, as these courses cost educators money. Many educators need an employer to pay for these courses to improve their students' learning.

Many outdoor education philosophies are steeped in Kurt Hahn's teachings, many of which revolve around breaking systems of privilege, allowing children to try and fail, and fostering their creativity and leadership skills (Meerts-Brandtsma et al., 2020). These skills can be obtained through classes and resources offered by parks and recreation departments and the Minnesota DNR.

Connecting parks to classrooms is a feasible and accessible way for students of all backgrounds to access outdoor education, which is crucial for a child's development. Why can't those who want to have outdoor education attend nature-based schools? Outdoor education needs to be, at the very least, a feasible option. Even though nature-based schools are on the rise, many of them are preschools that are difficult to get

into, be it socially or economically (Deines, 2021). 585 forest kindergartens and outdoor preschools exist in the U.S. today, nearly double the number in 2017 (Deines, 2021).

When a fundamental part of outdoor education philosophy breaks the system of privilege, outdoor education offerings are fundamentally available for those who desire it. Also, outdoor education continues beyond preschool, which is just the stepping stone for students, with nature education rising for higher-up primary school-aged students. Most students in high school today are considered one of the most environmentally aware generations because environmental issues, from flooding to forest fires, are rising (Dragolea et al., 2023). Having resources for students to help better educate themselves on climate issues that are happening globally and in their backyard is essential for older students. In traditional classrooms, many textbooks students use are a generic curriculum meant for mass use; they lack the connections to the local area students are studying in because they offer the same homogenized curriculum (Sobel, 2013).

People learn to interact within the park through other parkgoers and by attending park programs. The earlier a child can make this connection, the better; by partaking in adventure and environmental education lessons, children create positive interactions in parks and with their local community. But not every background is seen in the demographic of park goers (Rose, 2012). This is understandable, as how can a textbook company provide a curriculum to each site it sends textbooks to? It would be nearly impossible. That is why using parks and recreation curriculum and programs is necessary, as it takes the same information but brings the data to a place a student can know and routinely visit. Additionally, state-mandated tests and curriculums focus on getting students on the same page for test day. This creates a distance between students and the

natural world (Sobel, 2013). Parks can be another tier or resource for educators to use, and the benefits of outdoor education are outstanding. Every child should have the option and the access to outdoor education experiences. Parks and recreation departments can offer great resources for students and educators to offer more equitable and accessible outdoor recreation options.

### ***Summary***

In conclusion, outdoor education is vital to a child's overall development. From the physical health of getting outside and moving, to the mental health benefit of exploring nature and growing in confidence. Partaking in medium to high-risk adventure education can also reduce stress and anxiety. This will help students' grades and increase their understanding of the curriculum significantly. The parks and recreation department uses funding from grants, other resources, and materials to bring outdoor education to your backyard. Many resources are reasonably priced and remove the burden from primary educators.

## CHAPTER THREE

### Project Description

#### *Overview*

For my project, I created an educational resources website that provides adaptable lesson plans covering critical areas in nature-based learning, such as pond studies and Minnesota habitats, migrations, and earthworms. Each lesson has an overview, learning objectives, the age group it will work best in, what season it applies to, how long the lesson will be, and a lesson outline and summary. Each lesson will have the resources and worksheets needed to properly execute the lesson. All lessons are broken down into the 4 ecological biomes in Minnesota. Minnesota biomes are coniferous forest, deciduous forest, aspen parklands, and prairie grasslands. Each lesson will also highlight different local parks that the lesson can be done in or be visited after to create a sense of place. The goal of the resources site is to take away as many barriers surrounding outdoor education as possible. The lessons are all around one hour each, and would require materials that teachers or parents have on hand already. The point is to incorporate fun into the lesson. The lessons and website were created with guidance and resources from community resources and on Canva. The website coincides with my research topic: *How can outdoor education be more accessible through parks and recreation?*

The website aims to connect K -12 learners to their local parks and communities and create a resource for educators and learners. This chapter will provide an overview of the website creation, the creation of lesson plans, and the overall outcomes of this website. It also addresses the target audience for the website and location for the intended use.

## ***Who***

For my project, I wanted to focus on k-12 learners, a large group of students. Many online and in-person outdoor education resources mainly focus on elementary-aged students; however, predominantly middle elementary (3rd-5th), with some branching out into early childhood, and even fewer handling middle and high school students. The fact is outdoor learning can be focused on more than one age group; outdoor education is lifelong, and high school students deserve access to appropriate outdoor education resources just as much as elementary students. One area of debate within outdoor education is when to discuss hot button topics, such as wildfires or climate change. Some believe any age is appropriate, while other naturalists believe that certain topics are only for particular ages. A prominent outdoor education author, David Sobel, is a big proponent of slowly discussing heavy topics like climate change with kids as they age. As stated in his book *Childhood and Nature*, “If we want children to flourish, to become truly empowered, let us allow them to love the earth before we ask them to save it” (Sobel, 2008). If there are limited resources for older k-12 learners, however, where can they still experience the wonder of learning in nature while asking the big questions? These lessons will cater to the child’s learning requirements but allow the educators to branch off into more profound conversation if the students head in that direction.

## ***Where***

This Capstone project involves the creation of a website that will allow people from anywhere to access the lessons, worksheets, and also to see what local partners they may be able to reach out to for better outdoor education opportunities. Hopefully, they will learn and find connections from the resources provided. While it is online, the

lessons and resources will focus on Minnesota—mainly greater Minnesota—which covers all areas outside the metro, as this website offers activities that focus on the four different biomes of the state of Minnesota. This allows the students to connect with their local biome and the diversity that is Minnesota. This website could have the potential to reach students across the state, and possibly even out of state.

### ***Why***

The importance of accessible outdoor education cannot be understated. As mentioned earlier in my paper, the physical and mental health benefits for students in today's educational systems are more critical than ever as we are facing the highest number of childhood obesity and mental health problems among young people than ever before. Many students know more about the Kardashians than the ecosystem outside their classroom window. "I cannot recall a single 'field trip' to the wide-open spaces on our doorsteps...this is the situation in too many American schools, where children actively learn to "not think" about the relationships between what goes on inside the school wall and outside in social and natural communities" (Sobel, 2008). Getting students and educators connected to the resources in their local community is essential as it helps create connections to place, land, and the community. People are often unaware of the community resources available. This website aims to take the guesswork out of what resources are available and help connect people with those resources.

### ***How***

After completing the research paper for this project, which contains the background and knowledge, the next step is creating the lesson plans, which I started in mid-December of 2023. I aimed to have all the materials ready to upload on the website

by early May. The actual building of the site I left for last.

The lesson plans were the easiest part of the project as that is what I was most familiar with; I decided to focus on four lessons highlighting the different biomes in Minnesota. This included tree identification lessons, games, a pond study, exploring nature's engineers, and the American beaver. Each biome has 3 to 4 lessons highlighting the different animals and plants in that biome. Each lesson and biome also has resources listed. Each biome has the resources of different parks that highlight the lessons, and the lessons have worksheets and vocabulary lists available for use. Lastly, website building started in mid-March, and building a website was difficult as this was the first time I had done one from scratch. The website was designed to have an easy flow and be user-friendly. I found Canva to be the easiest to use as the website had a desirable flow. I was also able to create a unique and minimal nature design that flowed through the website and on the lessons as well.

### ***Conclusion***

Chapter three focused on why I chose the research question: *How can outdoor education be more accessible through parks and recreation?* This was done through the website design, compiling all local information, and offering free, adaptable outdoor education lessons. Next, in Chapter 4: Review, I will go over the findings of the project and research paper and what information stood out as helpful in the project design. It will also cover what limitations were discovered while doing my capstone.



## CHAPTER FOUR

### Review

This research paper and project aimed to find ways to understand *How can outdoor education be more accessible through parks and recreation?* In chapter one, the benefits of nature-based learning and an overview of parks were discussed. Chapter two focused on the research, which explored how a person's background, finances, and physical abilities affect their ability to access resources and benefits of outdoor education provided by the parks and recreation industry. In chapter three, the project of creating a website with lesson plans and resources for each biome in Minnesota was presented. Chapter 4 will cover the positive and negative outcomes of the research, including the process of creating the website, limitations encountered, and successes achieved.

### *Personal Reflection*

Reflecting on the capstone, I found it to be one of the most challenging things I have ever done. Writing is never easy, especially when crafting a professional research paper. The biggest challenge was learning the APA citation style and formatting the paper according to Hamline's guidelines. Creating the project was a more enjoyable experience than it could have been, however, as it allowed me to stretch a different part of my brain while designing a website resource for educators.

I chose this topic because it is essential to my work in the Parks and Recreation field. As a public service, it is crucial to reach all community members. Being so close to the topic, however, posed a challenge when writing the paper. It took longer to cover the same information, and while I had personal experiences to draw from, I occasionally needed more scholarly papers to back them up.

### ***Literature Review***

Throughout this paper, key themes became apparent throughout the research. Only a few significant researchers are studying outdoor education and its connections to parks and recreation. While every researcher was aware that outdoor education was essential to a child's development and that there were some setbacks in accessibility, few researchers were studying the critical role that parks and recreation departments play in our society and what role they can play in making materials accessible to the public. Parks and recreation departments deal with a bubble population, meaning they have to cater to the needs of that community. While this means their primary funding is also drawn from this bubble population, parks and recreation departments are more inclined to offer resources as their community needs them.

Spending less time outside has side effects. Scholars are studying how low exposure to nature can affect children's social and mental development (Charles & Louv, 2009). Students in low-income or urban settings deserve the mental, social, and physical benefits of outdoor education that are important to a child's development. The disparity between youth and nature will only grow as technology becomes more advanced and it is more convenient to stay indoors. *Nature Deficit Disorder* is a condition coined by Richard Louv in 2009 in which people, mainly children who spend little to no time outside, begin to show signs of physical, mental, and behavioral problems (Charles & Louv, 2009). This disorder is growing more prevalent in recent years. Giving children a chance to connect with the environment is essential, as we can see; it allows them to connect with their peers, the information they are learning, and the environment as a whole.

The more research that is conducted, the more pronounced the inequalities of outdoor education appear. As someone who grew up in white suburbia, the racial and economic disparity in outdoor settings was something I was aware of but did not experience firsthand. While researching this topic, it became clear why these issues were necessary to understand; with these racial and financial barriers still in place, we can not have fully accessible outdoor education. The socioeconomic constraints of time and distance are significant to why parks and recreation may not be accessible (Xing-Ju et al., 2019). This is why bringing these programs to the schools and through a website will allow some of these barriers to be broken down.

### ***Implementation and Limitations***

I wanted to create a resource for this project that would benefit educators of all backgrounds and experience levels. Reflecting on the outdoor resources I used when I first started in the field, the best were free online activities and lessons, as I could pull from them at will and use the activities to supplement my lessons. My goal was to create additional resources, such as websites, that were up to date with current environmental information and easy to read and use. For this reason, I chose to create lessons for the four different biomes of Minnesota. It helps give the website and lesson direction and allows educators and students to explore the variety of biomes in the state. Creating the website's design proved to be one of the more exciting parts of the making of this project. Choosing a simple design that represented the project and also each biome was a great creative outlet. The design is a massive part of the overall project, as each lesson and worksheet needed to be formal and professional in appearance. Overall, a lot was learned while creating the project and writing the paper for future endeavors like it.

The limitations of this capstone were finding articles that talked about current issues within parks and recreation and outdoor education. Many sources were written in the 2010s, which all had great information but lacked current information on mental and physical health and accessibility. A few articles also connected schools with parks and recreation departments. Many schools bring their students to environmental learning centers for outdoor education experiences. These experiences are essential for these students, but they need to ground their knowledge in the student's home environment. Schools do not need to travel to have their students experience the benefits of outdoor education; they can work with local parks and recreation departments to bring these experiences right into their classrooms and build community relationships.

Limitations encountered while creating the project included using Canva, which has lovely design features but is limited in that only Canva documents can be linked to the website. This meant that every document and resource needed to be made through Canva, which required some workarounds to display to the public. This was a concern as the point of the website was for it to be easily accessed by the public.

Another limitation of the project was how this website was going to be used by educators. The site is available, but without educators knowing about it, who would use it? The ultimate goal is to have parks and recreation departments list this on their websites as a resource for people to use and to reach out to other educator websites so they can offer this site as another available resource.

### ***Conclusion***

The research shows how vital outdoor education is to a child's development, their role in society, and the life-long skills they will learn while participating in outdoor

education programming, as well as how crucial parks and programming are for community betterment. Parks and recreation departments are a cornerstone in outdoor and adventure education to get people outside to enjoy nature in their communities. Connecting educators and students to parks and recreation departments can cut the middle man out of outdoor education. It has never been a requirement for schools to connect with privatized outdoor learning centers to offer holistic outdoor education experiences. Working with parks and recreation departments can give these students those same opportunities within the community they know, grounding the information for the students. Students gain the same skills with snowshoeing at their school playground as snowshoeing in a forest at a park. These connections make the accessibility of outdoor education more attainable without the added stress to the schools and educators.

The research also highlights the disparities in park access, which contradict the very essence of a park. The presence of time, travel, financial, physical, and emotional barriers to park visits and recreational activities creates an inequitable environment that, if left unaddressed, will persist. Parks and recreation departments have a significant role to play in creating equal green spaces for their communities. Ideally, engaging with students will foster a desire in them to advocate for the creation of fully accessible parks for future generations.

Outdoor education encompasses a diverse range of paths, with adventure and environmental education being the main branches. These paths not only enable individuals to forge connections with the environment through excitement and understanding but also celebrate the inclusivity of these connections. The beauty of outdoor education lies in its accessibility to all, a feat made possible by the efforts of

parks and recreation programming that ensures no one is left behind in the journey of outdoor education.

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