

***A collection of essays to answer the question "So what is it you do again?" faced by  
Outdoor and Environmental Educators everywhere.***

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## **Introduction**

The following chapters are a compilation of essays written by Alaska Pacific University (APU) students in the Masters of Science in Outdoor and Environmental Education (MSOEE) program. One of the classes in this program is titled Outdoor and Environmental Literacy. This course is designed to give incoming students the background and context for outdoor and environmental education (OEE). Because APU practices active learning methods of instruction, the students in this course learned of important figures and events in the history of OEE as well as the current and future trends of the field by researching the topics and creating the chapters in this book. The purpose of this book is to answer common questions surrounding OEE. The authors have done extensive research on the various topics and the chapters have gone through a peer review process. These initial chapters are a non-comprehensive overview on the chosen topics. Future students of the MSOEE program that take the Outdoor and Environmental Literacy class will elaborate further on the subtopics discussed within the chapters and will add topics as the book develops and as the industry evolves.

### **What is Outdoor Education?**

In this chapter, the author discusses the history of outdoor education and how it became what it is today. While outdoor education is difficult to define due to the depth and breadth of the activities and organizations that fall under the umbrella of this label, the author attempts to give readers the best working definition at this point in time. This chapter maintains a historical focus as modern outdoor education is discussed in greater detail in later chapters. For the purposes of this book, we call the beginning of outdoor education the time when learning about the outdoors shifted from a need for survival to an activity for recreation, and we will primarily focus on outdoor education in the United States. Some of the major historical events discussed include the Industrial Revolution, which resulted in an increase of leisure time, and the Romantic Era, resulting mainly from literature from authors such as Henry David Thoreau and John Muir. Also included are education movements related to or included in outdoor education like adventure education and experiential education. Again, this chapter is merely an introduction to the history of outdoor education and more detailed information will follow in later chapters.

### **What is Environmental Education?**

This chapter aims to mirror the previous chapter in its efforts to deliver the history of what is considered environmental education. The main difference in the history and development of environmental education and outdoor education is the official international documents defining and setting goals for environmental education. In this chapter, the author discusses the environmental movements that led to such documents as the Belgrade Charter, the Stockholm Declaration, and the Tbilisi Declaration. In addition to the important documents, the author also outlines the important figures that played a major role in the development of the environmental education field. These people and these documents clearly define the goals and objectives handed to environmental educators around the world. While it is important to recognize the global environmental education movement and its accomplishments, for the purposes of this book, we will focus predominately on environmental education in the United States. This chapter is also designed to be a brief guide to the history, development, and objectives of environmental education.

### **What Does Outdoor and Environmental Education Look Like in Contemporary Times?**

Picking up where the previous two chapters left off, this chapter gives us a modern description of outdoor and environmental education. The author gives several examples of current OEE across both industries and discusses a few of the various methods commonly used in these fields. This chapter is, again, a very brief introduction to what is a very large and ever growing topic. The variety of programs in outdoor education alone is a broad enough topic to write a book on. This, along with the fact that the programs and methods used by these industries are ever growing and evolving, will lead to future chapters in this book written in further detail on these more specific topics. In the meantime, this chapter serves as an overview to the modern appearance of OEE.

### **Who Does Outdoor and Environmental Education?**

To answer this question, this chapter explores the wide array of jobs within the outdoor and environmental industry. This chapter is also a brief overview and will not discuss any one job in detail, but it gives a general idea of the variety of careers available within the field. The author continues on to discuss some of the pre-requisites and schooling one might expect to need to excel in these fields. While reading this chapter it is important to remember that both of these fields are continuously growing and evolving. If interested in any of the careers within these fields, it would be advisable to do further, personal research on the details of the job description as well current desired pre-requisites and schooling.

### **Can Outdoor and Environmental Education Change the World?**

Climate change is rapidly affecting our world and everything in it. Little is untouched by this phenomenon, from entire ecosystems to basic human health concerns. This chapter stresses the importance of individuals working together to promote positive habits and reduce the negative impacts climate change is making on our earth. Relatively few people, especially in the developed world, grow their own food in today's society, and most people do not live in the places along the coast that are currently being forced to move due to climate change. Since many Americans live far removed from these immediate effects, they may not yet realize the widespread nature of climate change and this chapter argues that education can make the difference. Not merely educating people on the statistics of damage that has been caused, but rather, positively encouraging people through experiential learning to find tangible ways in their communities that truly can make a difference no matter how small. If communities around the world begin these practices, it will make a global impact.

### **Future Trends in Outdoor and Environmental Education**

While reading this chapter it is important to keep two things in mind. The first is that these trends are predictions based on research of the current trajectories within these fields. There is no guarantee that they will actually come to pass. The second is that trends are constantly changing. While this chapter can serve as a resource for those interested in the direction that the two fields are currently traveling in, it would be beneficial to do supplemental, personal research as this information may change quickly. This chapter presents the research that these current predictions are based on, and discusses the changes that these fields expect to see in the near future. Some of these changes are an increase in urban OEE as well as a movement to see more OEE programming in public schools. Because of the depletion of natural resources discussed in previous chapters, it is likely that land management will require higher accreditation from organizations using national and state parks.

These changes seem to be stemming from an increased use of parks as well as a change in demographic of those participating in OEE programs.

### **Summary**

These chapters have been researched and edited both by student authors and peers; however, the initial topics are rather broad overviews of a large amount of content. The topics will be further developed by future students in the MSOEE program in years to come. Until then, these chapters serve as a general introduction to the history and value of the Outdoor and Environmental Education fields and what the current trajectory patterns are predicting for the near future.

## What is Outdoor Education?

Sarah Engström

### Introductions and definitions

It is only in the past 200 years that our human society has decided that education needs to be something that takes place in a specific building during set hours. For thousands of years humans learned wherever they were. The world was their classroom, the curriculum was dictated by seasonal change and the grades were strictly pass/fail. "Nature, as the consummate teacher, will always point our way as we enter her domain. If we are only alert and receptive, her hints will show us how to live in her home" (Henderson & Vikander, 2007, p. 18). At the same time, there were some educators who were deliberate in their use of the outdoors to go even further than survival. The use of outdoor experiences for educational purposes has a rich history. Plato extolled the virtues of outdoor experiences for developing healthy bodies, which would lead to healthy souls. Like many outdoor adventure programs, Plato considered that the aim of physical education was not primarily to enhance physical skills and that it had a higher educational value: "The moral value of exercises and sports far outweighed the physical value" (John Hattie, 1997).

In the past 60 years or so society has accepted the premise of the Scouting Movement<sup>[1]</sup>, that having learning experiences in the natural world is a positive thing for our minds and bodies. Since humans like to classify things, we call this 'new' movement "Outdoor Education." But what does that mean? Any other field of study has very specific conventions, journals, and bodies of knowledge to have extremely firm definitions of what falls under their label. Looking for a definition of outdoor education (OEE) is much more subjective. It doesn't fall cleanly into one particular discipline, and so is all but impossible to neatly define.

There is no nationally standardized outdoor education curriculum and no nationally standardized measure of outdoor education competency or knowledge. There is no single body of outdoor professionals in outdoor education because the field transcends school boundaries into recreation departments, resource management agencies, and many other facets of society. As a result, outdoor education is viewed from different perspectives" (Outdoor Education- Definition and Philosophy, 1989).

Even the source of this quote is interesting, a journal about Dance and Physical education. Due to the breadth of the movement and its interpretations, the research about outdoor education is often more shallow than other disciplines. "Outdoor education practice around the world occurs in diverse circumstances, environments and cultures. While research in fields such as cultural geography has addressed the relationships between cultures, communities and geographical places, this is largely overlooked in outdoor education research" (Stewart, 2008). In light of this lack of definitive research, many who consider themselves to be outdoor educators are forced to settle on their own definitions of the field.

### Historical Context

Much as the definitions of this field morph, so do society's view of outdoor pursuits. Another shift in this understanding began around the time of the Industrial Revolution in the mid-to-late 1700s.



During this time, instead of being a mostly agrarian world in which the outdoor world was a constant and important part of life, more and more people started moving into cities and industrial centers where they were more separated from their outdoor-centric pasts. There were fewer and fewer opportunities close to hand to experience the natural world, except for a select population of driven scientists, explorers and landed nobility. Alongside the Industrial Revolution was the rise of a culture of leisure.

Along with the concept of the "Noble Savage" here is a misconception in popular literature and prose that the people of Europe and America lived idyllic lives before the Industrial Revolution came swooping down in a cloud of smog. "In fact, for most people there never was such a pre-industrial golden age. High days and holidays were strictly rationed. Apart from hiring fairs and annual rush bearing ceremonies, most people were far too busy trying to make ends meet to think overmuch about enjoying themselves. For quite a while, this pattern only got worse during the beginning of the revolution. Demands for a shorter working week began to gather pace in 1832. In 1847 the Ten-Hour pact was passed, opening the door to a new life in which education, self-improvement, sport and pastimes began to take their rightful place. (Leisure: The slow move to a better life, 2014). After this advance, a middle class began to emerge from the gears and factories of this time, and they had some money, and some time off with which to pursue their own aims. Often, these pursuits involved leaving the city, and going off into a more natural setting. Since travel cost money, only those with significant disposable income were able to go outdoors and recreate. At the same time, since the last native cultures around the world had been "subjugated" a romanticizing of native cultures began to appear in art and literature. The noble savage stereotype developed first in Europe. It first appeared in the United States in areas where "the Indian problem" had been solved. It's important to understand that as manifest destiny swept westward, it was possible for Indians to become picturesque and quaint in areas where they were either vanquished or powerless; i.e., no longer a threat (Native Americans and American Popular literature, 2014).

## **Nature in Literature**

This idealization of people that lived off the land and existed in nature encouraged many writers and artists of the time. One of the most famous is Henry David Thoreau, who lived on the shores of Walden Pond for two years, to escape from the pressures of the civilized world. He wrote "We need the tonic of wildness...At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be indefinitely wild, unsurveyed and unfathomed by us because unfathomable. We can never have enough of nature" (Thoreau, 1995). Another (one of many) literary advocate and crusader for the wonders of the unfathomable wilderness was John Muir. He wrote prolifically about the value of nature, but specifically of the value of wilderness and life in the outdoors as a cure for society's ills: "The clearest way into the Universe is through a forest wilderness"(Muir 1938).

Not only was there a literary concern about the lack of connections people in the US and Europe had to their natural environment, there were also serious health concerns after World War I about the lack of activity outdoors. This was mostly due to so many American youth having been rejected from service in the war because of their lack of physical fitness and the presence of health-related disabilities. To help address this concern, many states soon began adding health and physical education components to their school curricula, often in outdoor settings. During this same time period, circa 1918, industrialization continued to grow across the country and increased the need for trained workers in the U. S (Smith et al., 1972). In response to this demand, in 1917 the federal government sponsored the Smith-Hughes Vocational Education Act This act provided grants to states

offering vocational courses (Guttek, 1991), which traditionally emphasized hands-on learning and direct experiences (Carlson, 2002).

### **The Birth of Outdoor Education**

Much of the modern momentum for the American movement that became outdoor education began in England by a young soldier named Robert Baden-Powell. It is hard to say if he was a product of the times in which he lived, or if his actions were a catalyst for others to follow. Baden-Powell was stationed in a small town in South Africa called Mafeking during the Boer War. During his time there, he analyzed the behaviors and skills of the young men beneath him. Baden-Powell felt that many of these men (and all young people) were waiting to be drawn to their full potential. He was thinking of developing a training program for young people in Britain. His friends encouraged him to rewrite his handbook for soldiers (Aids to Scouting) for this younger audience" (History of Scouts, 2014). By 1910, there were over 100,000 scouts worldwide, and the idea continued to grow. Baden-Powell's book and the Scouting movement focused on recreating safely and in an environmentally conscious manner, building the skills needed to enjoy the outdoor world.

Baden-Powell's dream that began in a Boer War battlefield had transformed into a worldwide phenomenon by the early 1940s, with lots of residential camps and scout troops, and similar entities such as the Woodcraft league of America (Thurber, 2009).<sup>[2]</sup> When he died in 1941 he had a letter full of hope and promise published for Scouts everywhere, to continue this model of outdoor learning:

"I believe that God put us in this jolly world to be happy and enjoy life. Happiness doesn't come from being rich, nor merely from being successful in your career, nor by self-indulgence. One step towards happiness is to make yourself healthy and strong while you are a boy, so that you can be useful and so you can enjoy life when you are a man.

Nature study will show you how full of beautiful and wonderful things God has made the world for you to enjoy. Be contented with what you have got and make the best of it. Look on the bright side of things instead of the gloomy one.

But the real way to get happiness is by giving out happiness to other people. Try and leave this world a little better than you found it and when your turn comes to die, you can die happy in feeling that at any rate you have not wasted your time but have done your best. "Be Prepared" in this way, to live happy and to die happy- stick to your Scout Promise always when you have ceased to be a boy - and God help you to do it. Your friend, Robert Baden-Powell" (Baden-Powell 1929).

The Scouting movement was by no means the first time educators took their charges outside. But it was the first organized and structured outlet for outdoor education, which became a global phenomenon. Baden-Powell laid a foundation for others to follow, so that more people in the "jolly world could be happy and enjoy life." The idea of organized camping was very influential in developing the idea of the outdoor education field. But once Baden-Powell started the scouting movement, many other organizations began to jump on this idea. Some believe that the "greatest contribution that organizational camps have made to the camping movement is that of trained leadership and the establishment of standards greatest contribution that organizational camps have

made to the camping movement is that of trained leadership and the establishment of standards” (Carlson, 2002).

### **Other Educational Movements tied to the Outdoors**

Baden-Powell set the stage, but forgot to give the play a title. History is a study of how things are interconnected and the history of OE is no exception. One of the many forms of education that is often linked with outdoor education is experiential education. Experiential education pulled many ideas from the works of naturalists and thinkers like Thoreau, Muir, and Baden-Powell. True, not all writers about Experiential Education mention learning in outdoor contexts, but there is still the idea that experiential is a “natural” form of learning, that can benefit from a natural environment.

To speak about experiential education, we must look at the works of John Dewey, David Kolb, and Lloyd Burgess Sharp. Dewey was an American educator, who had very strong beliefs about direct experiences; Dewey encouraged democratic learning, cooperative learning, constructivist learning, and hands-on learning (Dewey, 1938/1997). He proposed that schools are miniature communities and should serve as “a genuine form of active community life, instead of a place set apart in which to learn lessons” (Dewey, 1900/1990, p. 14). Outdoor education, especially when used within residential programs, implements all of these types of learning (Carlson, 2002). He felt that learning should be a holistic experience, and that the process of learning is almost if not more important than the content discussed. Dewey’s ideas were concretized by David Kolb when he published his “experiential education cycle. “Kolb began by talking about Dewey, Piaget and Lewin. Combining their ideas about development and learning, he described a new ‘learning cycle.’ He said that deep learning, learning for real comprehension, comes through a sequence of experience, reflection, abstraction, and active testing. These four cycle ‘round and round’ as we learn” (Zull, 2002). Kolb’s theory argues that for learning to be concrete, first the learner needs to have a concrete experience, and then have time to reflect upon that experience. There are lots of writers now that bandy about the term “experiential education,” just because students are participating in hands-on learning activities. If the learners are not then also required to process this experience, elaborate on their understanding, try out their new knowledge in a different context, then it is just an active experience.

These can be potentially powerful experiences, but do not necessarily qualify as “experiential education.” This field does not have to happen in an outdoor setting, although many do, it refers to any learning process that begins with a concrete experience, is followed by deliberate reflection and testing. The point of experiential education is that any learning should create the space for more learning, in a continuous cycle.

One man who was influential in bridging the gap between Dewey and Kolb’s work to the outdoor field was Lloyd Burgess Sharp. He lived in New York in the 1920s, and was a student at Columbia University. He was a follower of John Dewey, who applied the educational philosophies, of the New Educators of pragmatic and experiential education to camping and outdoor school activities thus providing the avenue for what was to become known as outdoor education (Carlson, 2002). Sadly, there is very limited information available about what all Lloyd Burgess Sharp did to gain the title “Father of Outdoor Education.” What we do know is that 1930 was the turning point in what we call now “Outdoor Education” in the United States, due to the increase in publications associated with the topic (Carlson, 2002). Before that magic year when so many outdoor education programs began to bloom into being in the US, Sharp became the manager of the “Life’s Fresh Air Fund” in 1925, and began to organize summer camps that were focused on “teaching mathematics, science, and language

arts through outdoor camping experiences" (Carlson, 2002). There had been camping activities before Sharp, but he focused on the educational value of the outdoors and developing the idea of camping into a more concrete experience. He coined the term "outdoor education" in one of his publications in 1943. In this publication, Sharp described the educational values of outdoor education as "the realities of caring for oneself in the open, meeting adversities of weather, and the problems of food and shelter,...direct contact with the phenomena of nature, [and] learning the social values of living in small groups" (Carlson 2002). Sharp also built "Camp Tyler" in Tyler Texas, which is considered to be the first Outdoor Education center in the United States designed to be used year round (Carlson, 2002).

## **Residential Camps**

Lloyd Burgess Sharpe was by no means alone in creating the idea of residential and year round camps in the United States. In fact, so many others jumped on that wagon that in recent times there are those that argue that residential camping has become part of the American identity. These early camp directors continued the North American model, of nature being something separate from the people, something to protect and preserve by building their camps in remote areas, and maintaining as rustic and 'pristine' as possible. Most camps had limited if any facilities, and in the early days many campers were even expected to dig their own latrines (Thurber 2009). "Many North American summer camps, those seminal contributions to the international spectrum of human development and education in the outdoors, intuitively grasped this more than a century ago, often locating themselves in areas sufficiently remote to avoid the growing encroachment of *homo (builder) faber*" (Henderson & Vikander, 2007, p. 12). This shift is thought to have taken place sometime after World War II, but the reason is unclear. "Renowned camping historian Eleanor Eells notes several possible explanations, including the adventuresome spirit of a relieved post-war society, a growing economy, and the baby boom. Whatever the combination of factors, camping became a hugely popular summer activity for American children. Nevertheless, only about sixteen percent of the camper-aged population attended camp in any given year. The opportunity was apparently still not accessible to all" (Thurber, 2009). Today, this gap is shrinking considerably, and more and more American children are experiencing outdoor education in the form of summer residential or day camp programs. These will be discussed in greater depth in another chapter.

Some of the movers and shakers in the residential camp movement were Abigail and Frederick Gun, headmasters of Gunnery school in Connecticut. "In the summer of 1861, they took a group of kids into the wilderness along Long Island Sound for two weeks. This original summer camp, activities included hiking, boating, fishing, and sailing" (Thurber, 2009). At its inception, residential camps were not necessarily used as vehicles for education, just a fantastic way to spend a summer. The movement began almost simultaneously as the scouting movement took hold in the United States. As in England, there was an emphasis on boys' camps first, but by 1910, when the American Camping Association began, there were starting to be girls' camps as well. Early campers and scouts participated in a variety of outdoor activities, such as sports, storytelling, and learning about living in the outdoors (Thurber, 2009).

As more and more parents began realizing the benefits that their children received from spending large portions of their summers outdoors, the popularity grew exponentially. "Only a few dozen camps were operating by the 1880s, but by 1900, that number had grown to several hundred. Most of the early camps, many of which are still operating, were located in the Northeast and upper

Midwest" (Thurber, 2009). Many of the early residential camps were spearheaded by religious organizations, such as the YMCA, and other places of worship (Thurber, 2009).

## **Adventure Education**

Another field within the umbrella of OE is the idea that taking a student on an outdoor adventure is the best kind of education. Like outdoor education, no one has a monopoly on adventure, so the definitions are just as varied within this sub-discipline as outside it. Although often associated with residential camps, Adventure Education is not necessarily tied to any one particular place like a camp. Many organizations that 'sell' adventure education take their students on extended backcountry expeditions, and may only be at a "residential camp" for drop off and pick up.

One of the first pioneers in creating specific outdoor adventures as learning environments was an Englishman named Kurt Hahn. "He was contacted by Lawrence Holt – a partner in a large merchant-shipping enterprise, as war broke out in Europe in 1939. Holt insisted that faulty training was the cause of many seamen's unnecessary deaths in the Battle of the Atlantic. "I would rather," he told Hahn, "entrust the lowering of a life-boat in mid-Atlantic to a sail-trained octogenarian than to a young sea technician who is competently trained in the modern way but has never been sprayed by salt water." At this, Hahn proposed starting a new kind of school in Aberdovey, Wales: a one-month course that would foster "physical fitness, enterprise, tenacity and compassion among British youth." They agreed to name this school Outward Bound.

The training at Aberdovey was "less training for the sea than through the sea." Outward Bound's philosophy was that by placing young people in an intense outdoor setting, the environment itself would help create the skills needed for survival and life in general, such as human interdependence and concern for comrades in danger and need (History of Outward Bound, 2014). When it began, Outward Bound was "A month long course was designed to accelerate the development of independence, initiative, physical fitness, self-reliance, and resourcefulness. The success of these programs led Hahn to support the establishment of Outward Bound Schools in England and throughout the world; by 1995 there were 48 schools on five continents...Hahn claimed that the aim of Outward Bound was to 'enthral and hold the young through active and willing Samaritan service, demanding care and skill, courage and endurance, discipline and initiative" (John Hattie, 1997). Today, Outward Bound looks very much the same, but is no longer alone.

One of the first instructors in Hahn's Outward Bound in the United States was a man named Paul Petzold, a World War II vet and lifelong outdoorsman. In 1963 he testified before Congress in favor of the Wilderness Act, and helped establish the first American Outward Bound program in Colorado. While working at Outward Bound, he recognized the need to teach people how to safely enjoy and conserve the outdoors. His vision was to train leaders capable of conducting wilderness programs in a safe and rewarding manner and the result was the National Outdoor Leadership School NOLS. Paul Petzold later went on to found the Wilderness Education Association in 1977. NOLS has 14 locations around the world and educates more than 3,000 students annually "Paul's contribution to the youth of America, to wilderness and to the development of leaders is unparalleled," said John Gans, executive director of NOLS. "Paul developed the concept of outdoor education, forever giving the world a gift" (NOLS Paul Petzold, 2014). Here again we see how the ideas of adventure education and outdoor education are considered interchangeable even by those who practice them. To this day, NOLS and Outward Bound are among the most prestigious and well known purveyors of "outdoor education," but

by no means the only ones. Many organizations have taken up the idea of transformative experiences in natural or wilderness settings to further their own goals.

## **Conclusion**

Since outdoor education evolved as a concept from several continents, with many influences from many disparate writers and adventurers, it is difficult to pin it down to a single definition. Outdoor education is lumped into the same category as experiential, adventure, vocational, and environmental education. It has become a bit of a catch all term for learning opportunities that do not fit with in the four walls method of traditional education in the United States. "Outdoor education broadly refers to all aspects of education about, for, and in the natural environment. The term may also refer to a distinct field of education that assumes that the best way to learn about the environment is through direct contact with nature. Direct experiences in the outdoors provide for both the identification and resolving of "real-life" problems" (Collins, O'Brien, & Patricia, 2011).

The disparate definitions could go on for quite a while. The major problem is that since the "outdoors" means so many different things, and is used by so many different groups with vastly different agendas, every organization feels like their definition of outdoor education is the best. Unlike environmental education, there have been no declarations or international (or national) proclamations with any common goals with which to unify the field. Not all people that consider themselves outdoor educators are interested in environmental issues, or any one particular sport. "Outdoor environmental education, in theory and practice, is a process of telling, performing, representing and creating stories about places, people and their interactions. Education, including outdoor environmental education, is not value-free and takes place under diverse circumstances, environments and cultures" (Stewart, 2008). The possibilities for creating stories that lead to education and recreation in the great outdoors are endless, and so are the interpretations.

There are those that argue that the blending of boundaries in the field is a benefit, and something to strive for. "Surely outdoor education is all-embracing and should involve not only the physical educationist but also all who find the various environmental patterns, whether in an urban or rural setting, of direct value as a medium of instruction and leisure" (Parker & Meldrum, April 1974). For the purpose of this work, we will refer to OE as any organized outdoor learning experience that does not necessarily focus on any particular philosophy of education, but is often experience or adventure based.

Should the field of outdoor education be the catch all it has become? Is it different from environmental education? What has it looked like so far? Hopefully this brief history of the movement and its influential movers and shakers can help you, potential outdoor educator, come to an informed conclusion.

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## What is Environmental Education?

Dani Biersteker

### Early Influences (1760s-1920s)

The beginnings of environmental education are different depending on what literary source you look into. However, two common themes, Jean-Jacque Rosseau's *Emile* and the Nature Study movement

In 1762, Jean-Jacques Rosseau, a French philosopher, published *Emile*. The book itself was divided into five sections, and was Rosseau's educational philosophy written in novel form. Rosseau saw education as instrumental part of becoming who we are and thought learning came from three places: nature, from men, or from things. (Rousseau, 1762) E. McCrea, in his work "The Roots of Environmental Education," argues that *Emile* was an important step towards society looking at nature as a place for learning to take place. He also goes on to talk about the importance of teachers being the ones to create opportunities for student learning, which has been a large part of environmental education to this day.

Then in the late 1800's to early 1920's another type of nature focused educational movement took off thanks to two instrumental authors: Wilbur Jackman and Anna Botsford Comstock. Jackman and Botsford Comstock did not coin the term "Nature Study" or set up its major pedagogy "that nature could be studied to discover scientific truths and to create within students affection for nature and an understanding of nature's ability to bring joy in an industrialized world" (Lorshbach, 2013). Jackman published one of the first books on nature study in 1891 called *Nature Study for the Common School* where he explains less about how to teach science content and more on how to inspire students to want to make further scientific investigations. The other crucial piece of his book explained to teachers how to help work students towards being the ones in charge of their learning. (Brown, 1893) In 1911 Botsford Comstock published the *Handbook of Nature Study* which gave teachers a comprehensive science curriculum that included all aspects of science education along with her own notes, extensive data, and less scientific ways of connecting students to nature like songs and poetry (Appendix 1) (Comstock, 1911). In her words Nature Study's purpose was to "to teach it for loving rather than controlling nature" (Johnson, 1999).

The early influences from Rosseau, Jackman, and Botsford Comstock are still visible in environmental education today. From Rosseau first saying that nature played an important part in education to the Nature Study movement that fused scientific skills and an appreciation and appetite for more in nature, environmental education still stands upon the foundation built by these great thinkers of the past.

### Conservation Education (1930s-1960s)

Like outdoor education, environmental education is comprised of many similar fields. One such is conservation education. The conservation education age is when environmental education started to define and separate itself out from other "outdoor" education opportunities. The 1930s-60s gave us

two important movements that helped facilitate this change, the conservation and environmental movements, though they are often discussed as if they were synonymous. Around this same time period educational philosopher, John Dewey was on the rise with his works on learning by doing, lifelong learning, and making learning interdisciplinary, which guided many practices within environmental education then and into the future (McCrea) as noted in the previous chapter

The Dust Bowl, was a natural disaster that severely affected much of the United States during the 1930s, which came in three waves, 1934, 1936, and 1939-40, but some regions of the High Plains experienced drought conditions for as many as eight years. (NOAA Paleoclimatology Program, 2003) This phenomenon during the 1930s caused both a rise and need for conservation of natural resources. By 1935 the need for education on how to make changes to the farming and ranching practices within the United States had reached Congress (Simmons, 2010). This caused an influx of state and federally funded education programs, including the National Education Association's new leadership role in conservation education. This led to states requiring incoming teachers to have education in conservation of natural resources (McCrea). According to the Environmental Education Training Partnership the goal of conservation education was to "awaken Americans to environmental problems and the importance of conserving various natural resources" (EETAP). By 1953, conservation education had started its own association, and therefore branched itself off from environmental education (McCrea).

In 1962 Rachel Carson published *Silent Spring* and began what many consider the beginning of the modern environmental movement (PBS). Carson's controversial book opened the eyes of Americans to the effects of chemicals on the environment and humans. This led to public alarm and the concept that a need for change existed in environmental policy and behavior. The idea persisted with the publishing of Secretary of the Interior Stewart Udall's book *The Quiet Crisis* in 1963. This book included an introduction by President Kennedy, and discussed the American environmental legacy including what could be lost and what had already been lost (Simmons, 2010). These books "ushered in a decade of unprecedented environmental legislation and action from grassroots organizations to the Congress and the White House according to Simmons.

### **Foundations for Modern Environmental Education (1960s-1970s)**

The conservation and environmental movements of the 1930's and 1960's created a prime environment for the creation of policy and educational changes tailored for a more environmentally conscious world, both in the US and elsewhere. Within this culture of change the late 1960's through 1970's created the foundation for the modern environmental education field we know today.

From this climate of concern The National Environmental Policy Act of 1969 declared

*A national policy which will encourage productive and enjoyable harmony between man and his environment to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological*

*systems and natural resources important to the Nation; and to establish a Council on Environmental Quality” (United States Congress, 1969)*

This policy is still in place today and was very important for education, as well as the natural spaces in the US. The inclusion highlights the importance of understanding the environment in the policy act along with the founding of Earth Day in 1970, which precipitated the National Environmental Education Act a year later.

Until the 1970s, environmental protection and awareness was not a large issue in the United States government. Senator Gaylor Nelson of Wisconsin considered this a cause for concern which pushed him to found Earth Day, April of 1970. Nelson had campaigned for several years before the first Earth Day actually happened and considered it a success on several levels including, the growing interest in the United States towards grassroots movements and the idea of “teach-ins” that started with the Vietnam War (Nelson). Nelson went on to say that he could not have created the success Earth Day celebrated in its first year by himself, that he was aided by the 20 million other people who participated on April 22, 1970, planting trees, marching in rallies, and many other manifestations “That is the remarkable thing about Earth Day. It organized itself” said Nelson. Most importantly, it brought environmental education to schools. This was the catalyst for the National Science Teachers Association to do a study on the environmental education element in schools at the time and found that only 54 programs throughout the 50 states existed (Simmons, 2010). Earth Day also served as a catalyst for the National Environmental Education Act of 1970 that October.

The National Environmental Education Act of 1970 was another big step in recognizing environmental education in the United States. The creation of the act by President Richard Nixon included the creation of an Environmental Education Office within the U.S. Department of Health, Education, and Welfare, an advisory council, and a grant program, which aided teachers in professional development of environmental education curricula among other things (McCrea). In 1981 however, the office, council, and funding for the act were dissolved by the U.S. Congress in conjunction with the federal government's attempts to decrease their role in states education (American Geosciences Institute, 2000). During its time it did however move environmental education into K-12 schools and into the government.

Throughout this same time period environmental education was also reaching new heights outside of the United States government. In the fall of 1969 Professor Clay Schoenfield began the Journal Environmental Education, that would later be renamed *The Journal of Environmental Education* (McCrea). According to the journal's mission it is a place for teachers, administrators, scientists, and students to find articles “on instruction, theory, methods, and practice of environmental communication and education” (International Environmental Communication Association, 2014). In its inaugural edition Dr. William Stapp of the University of Michigan and his students explained the importance of environmental education within our society and identified the first objectives of the field. (Simmons, 2010) Now that a journal existed a group of educators concerned themselves with the development of environmental educational materials and created the National Association for Environmental Education in 1971, now the North American Association for Environmental Education (NAAEE) (Simmons, 2010). According to NAAEE they are an organization for professional environmental educators and are the “only national membership organization dedicated to

strengthening the field of environmental education and increasing the visibility and effectiveness of the profession" (NAAEE).

## **Global Declarations**

Between 1972 and 1977 three United Nation meetings instrumental in the movement towards modern environmental education occurred. These meetings helped give shape on a global scale to the principles, roles, objectives, and definitions that make up environmental education. First of these was, the Stockholm Declaration of 1972 created by The United Nations Conference on the Human Environment. From June 5-16, 1972 committee members met in Stockholm, Sweden "having considered the need for a common outlook and for common principles to inspire and guide the peoples of the world in the perseveration and enhancement of the human environment" (UNEP, Declaration of the United Nations Conference on the Human Environment 1972, 1972). During this conference the delegation of government officials, scientists, and educators set out seven proclamations and 26 principles to guide governments and citizens in the important needs effecting their human environment.

*Within the declaration the document stresses the importance of several key points looking forward:*

1. "The protection and improvement of the man environment is a major issue which affects the well-being of peoples and economic development throughout the world." (UNEP, Declaration of the United Nations Conference on the Human Environment 1972, 1972)
2. The natural and man-made elements of man's environment are important for human's well-being and its enjoyment should be a basic human right.
3. The human environment should be defended and improved for the enjoyment of current and future generations and its resources should be highly managed.
4. "Rational planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all." (UNEP, Declaration of the United Nations Conference on the Human Environment 1972, 1972)
5. Efforts should be made to increase knowledge in the field of scientific research and devolvement with environmental problems and the information generated should be shared freely between governments.
6. Governments have a responsibility to create their own environmental policies and insure that dealings within their State do not damage the environment in accordance with the United Nations.

The most pertinent piece of the Stockholm Declaration to environmental educators was Recommendation 96, which "called for the development of environmental education as one of the most critical elements of an all-out attack on the world's environmental crisis" (UNEP, The Belgrade Charter, 1975). During this meeting the United Nations Environment Programme (UNEP) was created to "act as the environmental conscience of the United Nations system." This branch of the United Nations is still active today with the continued mission "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations" (UNEP, UNEP Organization Profile, 2005).

The Stockholm Declaration the stage for the second meeting, from October 13<sup>th</sup> through the 22<sup>nd</sup> of 1975 in Belgrade, Hungary. This meeting was also an international workshop on environmental education. The framework includes the original guiding principles of environmental education and was unanimously voted into place at the close of the conference.

The meeting itself was in response to a global crisis in increased economic and technological growth that was leading to social and environmental consequences, such as a deteriorating environment but also a growing gap between the needs and wants of the rich and poor. The creators of the Belgrade Charter called for "a new global ethic- an ethic which espouses attitudes and behavior for individuals and societies what are consonant with humanity's place within the biosphere" (UNEP, The Belgrade Charter, 1975). The need for a new global ethic and the framework created at the Stockholm Declaration led the environmental education framework creators the push for a "reform of educational processes and systems" (UNEP, The Belgrade Charter, 1975) being needed for citizens to develop a new ethic and economic order.

The framework itself consisted of an environmental goal, environmental education goal and objectives, definition of the targeted audiences, and the guiding principles of environmental education programs. According to the charter's committee the goal of environmental education is "to develop a world population that is aware of , and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions to current problems, and the prevention of new ones" (UNEP, The Belgrade Charter, 1975). The committee members also elaborated on the audiences that should be targeted within environmental education. They broke them down into two groups: formal education and non-formal education sectors. Within the formal education sectors they included students of any age that took part in an activity as part of a school and any teachers or environmental professionals taking part in training. The non-formal education sector included all age ranges, "individually or collectively, from all segments of the populations, such as the family, workers, managers and decision makers, in environmental as well as non-environmental fields" (UNEP, The Belgrade Charter, 1975). Two years after the Belgrade Charter, UNEP created the first Intergovernmental Conference of Environmental Education. The conference that took place from October 14-26<sup>th</sup>, 1977 in Tbilisi, Georgia (USSR) resulted in a declaration that has been considered by many to be one of the most important documents in environmental education.

The Tbilisi Declaration built upon the roles, objectives, and principles put forth within the Belgrade Charter in 1975. The creators believed "environmental education should be provided for all ages, at all levels and in both formal and nonformal education" (UNESCO/UNEP, 1978). With this goal in mind the conference recommended the adoption of several criteria to guide environmental education on a local and global scale. These guidelines included things like the aim of environmental education as a

way for “individuals and communities understand the complex nature of the natural and the built environment” and that “environmental education should cater to all ages and socio-professional groups in the population” (UNESCO/UNEP, 1978). While the criteria of what environmental education should look like was new in the Tbilisi Declaration, the rest of the goals, objectives and principles put forth by the council flushed out or updated those created during the Belgrade Charter.

All of the components from these international meetings created the perfect educational environment for curriculum book creations that would help teachers integrate EE into schools. The Project Learning Tree in 1976 was first on the scene, which was an initiative of the American Forest Foundation and Western Regional Environmental Education Council which wanted to create curriculum that was “educationally sound for students and teachers” (Project Learning Tree, 2014). In 1983 and 1984 respectively Project WILD and WET were released. Project WILD was created in cooperation with state wildlife and fishery departments with the purpose of creating “wildlife based conservation and environmental education that fosters responsible actions toward wildlife and related natural resources (Project WILD, 2014). Project WET had a similar focus except with water resources and management. While these environmental education resources were started in the 1970s they continue to evolve and expand today (Project WET, 2014).

## **Conclusion**

So, what is environmental education? The field has a rich and broad history that cannot be completely defined within this chapter. An entire book would be need to truly describe all of the important people, ideas, and especially places on a global scale to truly understand the roots of environmental education. This chapter does however, describe the most important people and ideas present in formation of environmental education within the United States. The declarations and charters in this book give a good overview as to what makes up environmental education including the objectives, goals, and principles. However, what it lacks is a succinct one sentence definition. According to NAAEE, “environmental education teaches children and adults how to learn about and investigate their environment, and to make intelligent, informed decisions about how they can take care of it.”

**Appendix A.** Overview of the Tbilisi Declaration in its entirety from the Environmental Education Newsletter (*UNESCO/UNEP, 1978*).

*Criteria for Environmental Education:*

· Whereas it is a fact that biological and physical features constitute the natural basis of the human environment, its ethical, social, cultural, and economic dimensions also play their part in determining the lines of approach and the instruments whereby people may understand and make better use of natural resources in satisfying their needs. Environmental education is the result of the reorientation and dovetailing of different disciplines and educational experiences which facilitate an integrated perception of the problems of the environment, enabling more rational actions capable of meeting social needs to be taken. A basic aim of environmental education is to succeed in making individuals and communities understand the complex nature of the natural and the built environments resulting from the interaction of their biological, physical, social, economic, and cultural aspects, and acquire the knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving environmental problems, and in the management of the quality of the environment.

· A further basic aim of environmental education is clearly to show the economic, political, and ecological interdependence of the modern world, in which decisions and actions by different countries can have international repercussions. Environmental education should, in this regard, help to develop a sense of responsibility and solidarity among countries and regions as the foundation for a new international order which will guarantee the conservation and improvement of the environment.

· Special attention should be paid to understanding the complex relations between socio-economic development and the improvement of the environment.

· For this purpose, environmental education should provide the necessary knowledge for interpretation of the complex phenomena that shape the environment, encourage those ethical, economic, and esthetic values which, constituting the basis of self-discipline, will further the development of conduct compatible with the preservation and improvement of the environment. It should also provide a wide range of practical skills required in the devising and application of effective solutions to environmental problems.

· To carry out these tasks, environmental education should bring about a closer link between educational processes and real life, building its activities around the environmental problems that are faced by particular communities and focusing analysis on

these by means of an interdisciplinary, comprehensive approach which will permit a proper understanding of environmental problems.

- Environmental education should cater to all ages and socio-professional groups in the population. It should be addressed to (a) the general nonspecialist public of young people and adults whose daily conduct has a decisive influence on the preservation and improvement of the environment; (b) to particular social groups whose professional activities affect the quality of the environment; and (c) to scientists and technicians whose specialized research and work will lay the foundations of knowledge on which education, training, and efficient management of the environment should be based.

- To achieve the effective development of environmental education, full advantage must be taken of all public and private facilities available to society for the education of the population: the formal education system, different forms of nonformal education, and the mass media.

- To make an effective contribution towards improving the environment, educational action must be linked with legislation, policies, measures of control, and the decisions that governments may adopt in relation to the human environment.

*The goals of environmental education are:*

- To foster clear awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas; To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment; To create new patterns of behavior of individuals, groups, and society as a whole towards the environment.

*The categories of environmental education objectives are:*

- Awareness—to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.

- Knowledge—to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

- Attitudes—to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.

- Skills—to help social groups and individuals acquire the skills for identifying and solving environmental problems.



- Participation—to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.

*Guiding principles—environmental education should:*

- Consider the environment in its totality—natural and built, technological and social (economic, political, cultural-historical, ethical, esthetic);
- Be a continuous lifelong process, beginning at the preschool level and continuing through all formal and nonformal stages;
- Be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective;
- Examine major environmental issues from local, national, regional, and international points of view so that students receive insights into environmental conditions in other geographical areas;
- Focus on current and potential environmental situations while taking into account the historical perspective;
- Promote the value and necessity of local, national, and international cooperation in the prevention and solution of environmental problems;
- Explicitly consider environmental aspects in plans for development and growth;
- Enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences;
- Relate environmental sensitivity, knowledge, problem-solving skills, and values clarification to every age, but with special emphasis on environmental sensitivity to the learner's own community in early years;
- Help learners discover the symptoms and real causes of environmental problems;
- Emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills;
- Utilize diverse learning environments and a broad array of educational approaches to teaching, learning about and from the environment with due stress on practical activities and first-hand experience.

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## What Does Outdoor and Environmental Education Look Like in Contemporary Times?

Brian Janson

### Introduction

The roots of outdoor and environmental education go back a long way, but need for this sort of education has never been more apparent. Children have more and more possible distractions to keep them occupied indoors. According to the American Academy of Pediatrics, children today spend an average of seven hours a day on some sort of electronic media such as televisions, computers, phones, or video games (American Academy of Pediatrics, n.d.). At the same time many current studies describe how too much time in front of electronic screens has been linked to obesity, irregular sleep, behavioral problems, violence, as well as impaired academic performance (Mayo Clinic, n.d.). Several studies have shown that time spent outdoors in green spaces reduces negative emotions such as anger, sadness, and fatigue, as well as reducing the symptoms of attention deficit hyperactivity disorder (ADHD) (Kuo & Taylor, 2004; Bowler, Buyung-Ali, Knight, & Pullin, 2010)

It is not just human health that is suffering. At a time when human activity is having a tremendous negative impact on the health of the environment, our knowledge of the environment and the issues surrounding it have not kept up. In 2002 researchers showed that children often are better at identifying Pokemon characters than they are at identifying common wildlife species from their area (Balmford, Clegg, Coulson, & Taylor, 2002). And it is not just young children who lack environmental knowledge. A study in 2005 showed that the vast majority of even high level biology students could not name more than three common wildflowers (Bebbington, 2005).

Things are changing however. More and more people are beginning to realize the importance of what we have lost in our rush to focus so much of our efforts on "traditional", indoor education. In 2005, Richard Louv published his highly influential book entitled "Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder" in which he passionately describes the importance of nature in a child's development as well as how many children's exposure to nature has been limited by modern culture. Louv's book has inspired what could be considered a modern revolution in outdoor and environmental education, much the same way that Rachel Carson's *Silent Spring* revolutionized the environmental movement a generation earlier.

Outdoor and environmental education have been growing in perceived importance in the modern world, but that does not make it any easier to define. There are a wide variety of educational programs that could easily fall into the definition of outdoor and environmental education, ranging from short trips to the schoolyard to multi-week excursions into remote wilderness locations. These programs have different methods as well as differing goals, but they all agree that something important is missing when education is left inside the school walls.

### Environmental Education Centers

A common and fairly typical form of environmental education is often done as a part of a school field trip to an environmental education center. These centers provide non-formal educational opportunities

in that they are linked with schools and provide organized educational programming outside of the school to promote specific learning objectives (Smith, 2001). This sort of non-formal environmental education is provided by a wide range of organizations: from local, state, and federal government as well as private non-profit organizations. The type of educational experience that is provided is incredibly varied as well, depending on the organization providing the experience. One class may spend a few hours talking to a local county extension office about the importance of fire to prairie ecosystems. Another class may spend the entire day at a nearby national park hiking with a ranger while learning about the plants and animals of that area. Or the students may spend an entire week at a large non-profit residential learning center taking classes on a large number of environmental topics. The variety of these sorts of sites makes them difficult to define, but they all have a few things in common. Primarily, they all have set goals and objectives that are usually designed to supplement what the students have been learning in their classroom. The sites also have site specific resources a typical classroom might not have access to, such as interpretive signs, equipment, or taxidermies of animal or plant specimens. In this way students can get out of the formal classroom setting, experience what they are learning about firsthand, and see that learning is not something only confined to the classroom (Smith, 2001).

### **Environmental Education Programs in and around the Classroom**

Of course, even with the large number of these non-formal environmental learning centers around the country, not every school has easy access to such a place. Or even the schools that do make use of such places may not be satisfied with only a few short field trips throughout the year. One solution to this are Project Learning Tree, Project Wild, and Project WET, as described in the previous chapter. These programs were created to be used by school teachers in classrooms and around the schoolyard to help provide environmental education directly to their students using a standardized curriculum. The programs contain several hundred different activities for students from pre-kindergarten to 12<sup>th</sup> grade, designed to provide a place-based environmental education experience. Most of these programs even offer specialized teacher trainings to help teachers learn how to facilitate these activities and better utilize them in the classroom (Wickenamp, 2010).

If teachers want a more personalized or interdisciplinary approach for their students beyond the typical one-size-fits-all approach of premade curriculum, they can create their own environmental education experience for their students using a school garden. In many ways gardens are an ideal environmental education tool because they can be built right outside the classroom regardless of where the school is and the students can make use of it throughout the year. By having students working outside the classroom growing things like vegetables and flowers, school gardens can help students understand fundamental environmental topics such as soil, weather, climate, and the interactions between different organisms, but they can also be used to teach subjects like math, art, and history when they are fully integrated into the curriculum (Environmental Education and Training Partnership, 1999). Use of school gardens has been shown to have positive impacts on students' environmental behaviors (Blair, 2009) as well as on science achievement test scores (Klemmer, Waliczeck, & Zajicek, 2005). Even more than that, school gardens have been shown to have a positive impact on non-cognitive skills like cooperation and self-understanding (Robinson & Zajicek, 2005) and even help students take a more positive attitude towards learning (Dirks & Orvis, 2005)

Environmental education in schools does not have to be limited to schoolyard gardens, however. Some classrooms and even entire schools in a few cases have started to modify large sections of their curriculum to incorporate local environments of all sorts. This sort of "place based" environmental

education is possible for classroom teachers regardless of where they are located. It has been shown to be possible in rural farm communities as well as urban areas (Lieberman & Hoody, 1998). In fact, this sort of educational practice has incredible potential value for urban schools because it allows students to see that nature is not something that is far away and separate from cities; placed based environmental education can show students that cities are places “in which people and the rest of nature are inextricably interwoven, continually influencing each other– sometimes for the worse, but many times for the better” (Lauber, et al., 2012). In this sort of educational practice, the environment is treated as an integrating context for all sorts of lessons. In this case, the environment that the students study may be places such as a nearby creek, a woodlot next the school, or a farmer’s field outside of town. This sort of instruction allows students to actively engage in what they are learning instead of passively learning from a textbook. The educational effects of programs like this have been shown to increase standardized test scores, reduce discipline problems, and increase enthusiasm for learning, as well as teaching students numerous aspects about the environment around them that they may have missed otherwise (Lieberman & Hoody, 1998).

### **Environmental Interpretation**

Not all outdoor and environmental education is directed specifically at school children. A common type of environmental education that is familiar to many people is environmental interpretation. Interpretation is an informal type of education that is done at places like parks, zoos, nature centers, aquaria, and botanical gardens by interpreters, docents, rangers, park guides, and tour operators (National Association of Interpretation, n.d.). Interpretive services can be personal, such as a ranger guided hike through a forest, or they can be non-personal, such as brochures ,audio tours or even informational posters or displays on the side of a trail or highway. While interpretation is an example of environmental education in the broad sense of the idea, it is not a typical form of environmental education in that it is a completely free choice activity—no one is forcing the audience to participate—and it does not include any specified learning goals. Instead the goal of interpretation is to simply provide the audience intellectual and emotional connections to a specific resource so that the audience has a deeper understanding of the resource and feels more compelled to preserve it. Just like a language interpreter translates the meaning from one language to another, environmental interpreters are tasked with translating artifacts and physical resources into a language that helps visitors make meaning of them (Bacher, et al., 2007). In short, all interpreters “provide information, orientation, and inspiration in the right amounts and at the right times, so that visitors will have more enjoyable, meaningful experiences” (National Park Service, n.d.).

### **Wilderness Experience Programs**

One form of outdoor education program that is rapidly growing across the U.S. is wilderness experience programs (WEP). These are programs that use the wilderness environment as a way to aid personal growth, education, and healing. There are many different organizations that offer this sort of programing- a study in 1996 found nearly 700 such programs in the U.S. These program providers include commercial operations, college programs, youth groups, religious organizations, and special interest groups. (Dawson, Friese, Tangen-Foster, & Carpenter, 1996). While no two programs are exactly alike, they do feature numerous common features: a natural setting that is far away from the participant’s normal environment, group size usually less than 16, mentally or physically challenging objectives, and frequent interactions involving group problem solving. While the precise goals and methods of each WEP may be different, a meta-analysis of such programs have shown that, in general, such programs have positive impacts on leadership, self-esteem, academics, and

interpersonal relations. Even more, these improvements were shown to be more stable than similar effects from more traditional educational programs (Hattie, Marsh, Neill, & Richards, 1997). These programs use the outdoors as a vehicle to further the goals of their particular flavor of experience.

Even though there are hundreds of WEP's, most of those programs are small and highly localized. Three national programs, however, stand out from the rest in terms of size and scope. The largest and most influential are Outward Bound and the National Outdoor Leadership School (NOLS) as mentioned in a previous chapter. These programs have much in common. Both are non-profit organizations that offer a variety of wilderness and adventure programs designed to teach wilderness skills and promote personal growth. Both NOLS and Outward Bound offer courses that range from a few days to a full academic semester and are based on such challenging activities as backpacking, kayaking, mountaineering, sailing, or sea kayaking (Manning, 1996). These programs also have several key differences. First, is in the audience they serve. Outward Bound serves a wide range of students, from middle school to adults (Outward Bound, 2014). While NOLS does offer some programs for children as young as 14, the bulk of their programs are designed for college-aged adults and older (Manning, 1996). The other big difference is in the desired goals for each program. While many of their goals are similar, NOLS focuses primarily on outdoor skills, leadership, and the environment itself. To that end, most NOLS courses are capped off with a student led expedition where the students travel together as a group, leading themselves using the skills they have learned. Outward Bound courses on the other hand tend to focus on personal development and inspiring their students to serve others. Outward Bound courses tend to culminate with a solo experience where the students spend time alone in a controlled environment to reflect on what they have learned (Palmer, 2005).

The third wilderness experience program worth noting in this chapter is the Wilderness Education Association (WEA). WEA is a network of affiliated university outdoor education programs that teach a standard curriculum. The WEA offers many of the same programs as NOLS and Outward Bound, but it also provides official certifications designed to teach leaders in outdoor and adventure education how to properly and safely bring the public into the wilderness (Wilderness Education Association, 2014).

The success of wilderness experience programs has even led them to be used by many different colleges and universities as an extended orientation program for first year students. This practice was started at Dartmouth College in 1935 and has spread to over 200 schools in the U.S. (Bell, Holmes, Vigneault, & Williams, 2008). While no two programs are exactly the same, most of these wilderness orientation programs share three basic goals: aiding transitions to college by using outdoor experiences to have fun, increasing student self-confidence and responsibility, and fostering participant's sense of community and social skills. (O'Keefe, 1989). Studies have shown that students who participate in wilderness orientation programs are more likely to re-enroll in their university after the first year of school than those who don't participate in such programs (Martaugh, Burns, & Schuster, 1999). Many such school programs are often based upon the leadership models of these major organizations.

Some programs have gone even farther and use wilderness experience programs as a form of psychotherapy to treat things like depression, drug addiction, and other mental health concerns. These programs are based on the model of Outward Bound and other WEP's but they are different in that the program is supervised by a licensed mental health practitioner, has trained therapeutic staff, and clients have individualized treatment plans. Therapeutic staff typically also works with the participant and the family after the program to make sure that progress is maintained (Russel, 2001). Programs like this have been shown to treat depression as well or better than traditional treatments of

medication and cognitive behavioral therapy. The programs have also been shown to have significant and sustained improvements in self-esteem, social competence, and family functioning (Crisp & Hinch, 2004).

## **Challenge Courses**

While expeditionary wilderness experiences provided by organizations like NOLS and Outward Bound are quite popular and have proven to have profound impacts on the lives of many of their participants, they do have significant downsides. Namely, they are expensive and require their participants to devote a large amount of time getting into and out of the wilderness areas involved. This leaves large sections of the population effectively incapable of participating in and benefiting from such programs. To fill this void, outdoor and experiential educators began adapting military style obstacle courses for use with the general public. There are currently more than 7,500 Challenge Courses throughout the U.S. serving school students, corporate clients, and nonprofit community groups. These challenge courses are designed to provide the mental, emotional, and physical qualities of a typical wilderness adventure program and make it more accessible to a larger audience (Chapman, 2006). Challenge course programs are designed to build trust, help participants set and meet goals, develop problem solving skills, and improve teamwork and communication. Typical challenge courses consist of low ropes elements—elements close to the ground—and/or high ropes elements—those that are high above the ground in trees or large poles. While there is at least some risk involved in any challenge course activity, especially those that are thirty feet or more off the ground, the risk is minimized through the use of careful safety measures such as belay lines and safety harnesses. The idea is generally to provide the idea of risk and danger without actually putting the participants in real danger. (Challenge Ropes Courses, n.d.). In fact, despite the heights involved, challenge courses are remarkably safe, tallying only 4.33 injuries per million hours of program exposure, compared to 724 injuries per million hours of program exposure for downhill skiing and 4500 injuries per million hours of program exposure for soccer (West Virginia University, 2014).

## **Scouting**

Other organizations with similar character development goals include the Boy Scouts and Girl Scouts, as we read before. Robert Baden-Powell started the scouting movement in 1910 with a strong emphasis on developing outdoor skills; today, the scouting movement has greatly expanded its focus to include many areas that have little to do with the outdoors. A typical Boy Scout in modern times is just as likely to earn badges for first aid or cooking as camping, but the outdoor education aspects of scouting is still strongly apparent (Boy Scouts of America, 2014). The Scouting program has three main goals: character development, citizenship training, and personal fitness. None of those goals are strictly limited to an outdoor environment, but many of the Boy Scouts programs are designed to take place outdoors. The outdoors is a place where “the skills and activities practiced at troop meetings come alive with purpose” as well as being “the laboratory for Boy Scouts to learn ecology and practice conservation of nature's resources” (National Eagle Scouts of America, 2014). While Boy Scouting and Girl Scouting started as a single entity, and have very similar goals, it should be noted that the organizations’ interpretation of outdoor and environmental education often differ. There is often an expectation that boys who participate in Boy Scouts will go on a certain number of camping or outdoor experiences in order to move up the ranks, where no such restrictions apply in the Girl Scouting organization. This is not to say that young women who participate in Girl Scouting are not exposed to outdoor situations, but that there is less emphasis on an organization-wide level.



## **Summer Camps and Related Programs**

Some outdoor education programs have less emphasis on character and skill development and far more on simply having fun outside and using that enjoyment as a way to connect with the environment. One of the most common forms of this sort of outdoor education is summer camps. The American Camp Association (ACA), the largest organization of camps in the US, has over 2,400 accredited camps and serves over 6.9 million campers every year (American Camp Association, 2014). Camps come in many different shapes, sizes, and specialties. This variety means that the specific goals of each camp can be incredibly diverse, but in general, all camps have five basic goals: have fun, improve skills, gain independence, make friends, and experience a new environment. While the “new environment” that modern campers experience is often something like a college campus, most camps are still based in rustic, natural environments that the camping idea was founded on (Malinowski & Thurber, *The Goals of Camping*, 2009). Traditional, overnight camps are typically based around a wide variety of activities, including things like swimming, canoeing, sailing, tennis, archery, and photography. While most activities are simply there to help the campers have fun, many are designed to help the campers develop a strong sense of community and foster teambuilding and leadership skills. In addition, roughly half of all summer camps report to include some sort of environmental education, hoping to better inform their campers about the environment in which they play (Malinowski & Thurber, *Types of Camps: Traditional*, 2009)

Some camps and outdoor education programs are much more focused on the emotional well-being and spiritual growth of their students. Some of those programs are specifically religious in nature. Churches and other religious organizations have long used camps as a way to have students live within a small religious community in an outdoor setting as a way to develop their faith (Ferguson & Burch, 2011). Religious camps may include formal worship services and study groups as well as integrating religious themes into games, songs, and daily life (Malinowski & Thurber, *Religion and Spirituality*, 2009). Other camps are less tied to a specific religious doctrine but still want to develop the spiritual aspects of their students such as purposefulness, connection, contribution, and meaning. For them, time in nature is simply a great way to encourage wonder, promote creativity, repeat traditions, and foster reflection among their students (Ferguson, *Camps and Spirituality*, 2007)

Another genre of specialized camps and similar outdoor education programs that are designed to help students with special physical, psychological, and emotional needs. Camps can have specific programs be designed to help students with issues like obesity, Attention Deficit Hyperactivity Disorder, cerebral palsy, leukemia, and many more. These programs bring with them many of the same benefits as a traditional camp experience with the added benefits of a staff and curriculum that is specially designed to deal with whatever special difficulties the students may be experiencing. Spending an extended amount of time with groups of students dealing with the same needs and a camp staff that is highly trained to deal with those needs can be incredibly rewarding. Research has shown that these special needs camps often increase students’ coping skills and self-esteem (Malinowski & Thurber, *Summer Camp Handbook*, 2009). Outdoor education specifically within the framework of camps, residential or day-use, is a great way to build communities.

## **Conclusion**

This chapter is not meant to be an exhaustive survey of the all aspects of outdoor and environmental education. It is merely a quick glance at some of the larger and more notable parts of the field. But it is still easy to see that the field is incredibly diverse with many different programs with many different

goals. Some programs are take place deep in the wilderness; others are designed to be done right outside a classroom. Some seek to increase knowledge and skill; others focus on the participant's attitudes and emotions. Some programs are designed to save the planet, while others are designed to assist the individual student. The only thing that they all have in common is the belief that education is more meaningful, effective, and fun when it is done outside.

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## Who Does Outdoor and Environmental Education?

Mark Smith

### Introduction

In previous chapters, the history of outdoor and environmental education (OEE) and what it looks like today has been discussed. It's time to examine the types of people that are involved in OEE. *Who* does outdoor and environmental education? Another way to ask this question is *who are outdoor and environmental educators?* People with degrees in outdoor and/or environmental education would be ideal candidates for the careers and opportunities discussed throughout this chapter, but the field is too diverse to be limited to only this small subset of individuals. For this chapter, the focus will be on people and groups who emphasize the *educational* aspect of their particular outdoor or environmental pursuits. There are plenty of careers, jobs, volunteer opportunities, and recreational activities that happen outdoors and require the people involved to spend a significant amount of time in nature. For example, a professional football player, logger, and construction worker all work outdoors quite often; however, their job really is not necessarily about outdoor or environmental education. This chapter seeks to differentiate outdoor jobs, and focus upon the people who are more explicitly involved in outdoor and environmental educational careers, jobs, and volunteer opportunities. In this piece, we hope to provide a simple description, overviews and examples of a variety of outdoor and environmental educators. We will also discuss some unique characteristics, steps to employment, pre-requisite schooling, and certifications needed to work for or volunteer in each particular area. In addition to this, specific examples of organizations and people who participate in outdoor and environmental education across the US and within Alaska will be provided as brief case studies.

### K-12 and College Teachers

Public school teachers may not normally be viewed as outdoor or environmental educators, but there are schools that are trying to implement outdoor learning programs into their curriculum. Outdoor and environmental educators working for local and statewide organizations often design the curriculum used in these schools. Charter schools with an outdoor or environmental emphasis employ teachers with more specialized education and experience with and in the outdoors. Educators who work within these schools are expected to be able to integrate multiple disciplines in their teaching and often carry multiple certificates. A school may not have the time, funding, or expertise available to integrate OEE into their curriculum as part of their framework or mission, but can still have educators from Fish and Game, the Park and Forest Service, or other organizations give presentations to classes periodically throughout the year. Outdoor and environmental educators are being increasingly utilized in the school system, whether through an outdoors based school, a school with an outdoor program, or a few days spread throughout the year devoted to outdoor and environmental learning. (Curtis, 2010)

Colleges hire outdoor and environmental educators, often referred to as "field instructors" to teach in specific programs, such as outdoor studies, outdoor leadership, and leading freshmen orientations as discussed earlier. The number of universities offering this type of orientation programs has been on the rise over the past several years. Staff and volunteers at the university with outdoor leadership

experience would be needed to run these trips (Wecker, 2011) . Alaska Pacific University (APU) is one such institution that offers related degrees as well as first year student outdoor orientations. APU has an Environmental Science program that offers undergraduate and graduate degrees, as well as an Outdoor Studies department that also offers undergraduate degrees and graduate degrees, which includes their Masters of Science in Outdoor and Environmental Education program. APU's Outdoor Studies program states that it "is for outdoor enthusiasts wanting to get paid to do what they love" (Alaska Pacific University, 2014).

### **Outdoor Adventure Guides:**

In places with a diverse amount of wildlife, landscapes, and wilderness areas, such as Alaska, professional guiding provides a major source of employment for seasonal workers and year round residents of these places. Guides come in many guises, such as Sight-seeing, hunting, back country hiking and camping, mountaineering, rafting, and fishing to name a few. A unique set of physical, technical, relational, specific knowledge, and communication skills are needed to be a successful guide, who provides clients with a safe, successful and educational experience. Each of these guides have unique characteristics, specific to their purview but all of them require the ability to communicate with and relate to the people they are guiding. Guides with knowledge of the history and culture of the are better able to facilitate a complete experience for their clients. The educational aspect of guiding is crucial to a safe and an enjoyable experience. Most guides are self-employed or part of a local outfitter, but some may be part of a larger company or contracted out to help guide for other organizations. Even park and forest rangers are sometimes contracted to serve as the interpreter for tours with large amounts of people. For example Kenai Fjords National Park in Seward, Alaska hires out many rangers to provide interpretation for many boat tour operations in the area.

First aid training and certifications are required for guiding, as well as most other outdoor and/or environmental education positions. Some jobs may only require basic first aid and CPR, but others may require a wilderness first aid or wilderness first responder certifications, as much of the time with clients will be spent in areas more than an hour from definitive medical care. College degrees are not normally necessary in guiding; experience and specific certifications are usually more desirable when employers are looking for guides, though each company makes their own decisions. Some people make careers out of guiding, rotating between seasonal opportunities in the summer and winters, whereas others may work another job for most of the year, and use guiding as a supplemental job just in the summer or winter. (Ibrahim & Cordes, 2008) (Kirk, 2009)

### **Government Agencies**

Field Instructors often work in the national and state agencies such as the Forest Service, Park Service, Bureau of Land Management, and Fish & Wildlife Service in a variety of positions. Each of these agencies maintains employment websites that are very useful in finding openings, job descriptions, and qualifications for each position. The range of employment opportunities is broad, including but not limited to geologists, biologists, recreation planners, ranger, field-specific specialists, administrative positions, firefighters, technicians, assistants, tour guides, volunteer managers, and interpreters. High school, undergraduate, and graduate student internships are common for each of these agencies as well. They partner with organizations like the Student Conservation Association (SCA) to provide summer jobs for students looking for outdoors related employment and to get their foot in the door with these agencies for a potential career. In addition to permanent jobs and



internships, volunteers are a key part of these agencies' conservation and education efforts. Seasonal jobs, internships, and volunteering often lead to more permanent jobs with these agencies[3].

## **Outdoor Industry**

Although outdoor gear manufacturers and retailers are businesses aiming to sell their gear to consumers and make a profit, some companies place a significant emphasis on educating the public. We will focus on a few of these and discuss how they are involved in outdoor and environmental education. One of the most well-known outdoor manufacturers and retailers is Recreational Equipment Inc., otherwise known as REI. REI has multiple stores nationwide and a vast online presence. Other than selling gear, they are active in helping educate its customers and the public. The company provides classes on outdoor skills, safety, wilderness medicine, and awareness of environmental issues and resources to the general public. Some of these opportunities are free and others require a fee to participate. Avalanche awareness, winter sports basic training, backpacking basics, climbing basics, and outdoor fitness are a few examples of these classes. There is an entire section of the company's website called "REI Learn", which has articles from experts with advice for dressing appropriately, tips, techniques, and outdoor etiquette. They also provide reviews and descriptions of hiking and biking trails in areas near their retail stores. Lastly, REI furthers outdoor and environmental education in their blog which contains articles and stories on all things outdoors that range from gear reviews and field performance, to different national park descriptions, to personal stories from people's experiences in the outdoors (Recreational Equipment, Inc., 2014).

Eastern Mountain Sports (EMS) serves similar functions as REI does within the OEE community, though they function mostly on the East Coast of the US. EMS partners with outdoor gear manufacturers and various outdoor agencies and associations to offer classes on different outdoor skills, taught by professionally trained guides (Eastern Mountain Sports, 2014). Likewise Sierra Trading Post, another nationwide outdoor gear retailer, both online and brick and mortar, provides free education to the public, though not as extensive as REI or EMS. Sierra Trading Post devotes a portion of their website to educating the public on the pros and cons of buying certain types of gear, basic camping skills, outdoor safety and first aid, and checklists for certain types of outdoor activities. Their wilderness medicine information is fairly extensive, covering a large range of injuries and sickness that people may encounter in outdoor and wilderness situations (Sierra Trading Post, 2014).

The fourth outdoor retailer worthy of mention is The Clymb. The Clymb is an online retailer based out of Portland, Oregon. Their form of outdoor and environmental education seems to be a mix of REI's and Sierra Trading Post's. They provide extensive information on gear selection and outdoor tips and safety like Sierra Trading Post, but they also have a blog similar to REI's with people's outdoor stories. They do not offer classes like REI however (The Clymb, 2013).

Lastly, the company Patagonia takes great pride in making quality outdoor gear and promoting environmental stewardship. Their mission is to "Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis" (Patagonia, 2014). They ensure that the materials with which they make their clothing are recycled or manufactured in an environmentally sustainable way. Patagonia also runs initiatives such as *The Footprint Chronicles* and *Worn Wear* to reduce the social and environmental impacts of their products. In regards to employment, Patagonia states, "We're especially interested in people who share our love of the outdoors, our passion for quality and our desire to make a difference." (Patagonia, 2014) Patagonia often employs educators and guides working with other organizations to test and review their gear

and practices. Often partnerships like this are the result of “pro deals” available through some employers.

In addition to outdoor manufacturers and retailers, ecotourism plays a major role in the outdoor industry. The International Ecotourism Society (TIES) defines ecotourism as, “responsible travel to natural areas that conserves the environment and improves the well-being of local people.” (2014) Ecotourism companies focus on smaller groups of travel and responsible ways of travelling through natural areas to lessen their footprint. Through interpretation, these companies seek to raise awareness and a sense of respect for the environment and local communities in their participants (The International Ecotourism Society, 2014). An ecotourism company that is a member of TIES and the Alaska Wilderness Recreation and Tourism Association (AWRTA) is Alaska Wildland Adventures. They meet all of the guidelines of TIES and AWRTA, which also promote ecotourism as a way to protect and educate about the wilderness areas of Alaska. Alaska Wildland Adventures hires interpreters, guides, maintenance, and hospitality positions at lodges and in the field on the Kenai Peninsula and Denali National Park (Alaska Wildland Adventures, 2014).

### **Outdoor and Environmental Learning Centers**

Often nonprofit organizations, outdoor and environmental learning centers are important pieces of OEE. They are a primary source for enhancing community and individual awareness of environmental issues. These centers employ a range of positions from maintenance, to administrators, to interpreters, education coordinators and educators that work with the public. Outdoor skills and activities are and conducted on a variety of topics, as well as learning about the natural world. Examples of this “nature learning” include ecological studies, cultural history of the local area, gardening activities, guided hikes and lecture series, and many more. In many cases, environmental education is the focus of these learning centers, rather than outdoor education. They work in conjunction with national and state recreation areas, schools, individuals, and other community groups to educate the public on environmentally relevant issues. In doing this, outdoor and environmental learning centers hope to facilitate the development of environmentally responsible behaviors in local community members. (The Environmental Careers Organization, 1999) To demonstrate how these learning centers work, we will take a look at two organizations. Wolf Ridge Environmental Learning Center in Minnesota is a nationally and internationally recognized environmental learning center, and was one of the first centers of its kind. According to their website, Wolf Ridge’s mission is “to develop a citizenry that has the knowledge, skills, motivation and commitment to work together for a quality environment.” (Wolf Ridge Environmental Learning Center, 2013). They run classes focused on relevant environmental science and issues, personal and interpersonal growth, and outdoor recreation and activities. They serve over 18,000 children, youth, and adults over the course of a year by means of the 20 naturalists involved in their graduate environmental education program during the school year, numerous summer staff, and permanent administration employees. (Wolf Ridge Environmental Learning Center, 2013) Wolf Ridge is part of an initiative in Minnesota to give every student in the state outdoor and environmental educational opportunities.

Another environmental learning center worth noting is Campbell Creek Science Center in Anchorage, Alaska. Their mission is “to promote discovery and learning experiences that increase awareness, understanding, and appreciation of nature; use of the best science for the management of Alaska’s natural resources; and behaviors, practices, and lifestyles that minimize impact on the environment.” (Bureau of Land Management, 2008) During the summers, Campbell Creek hosts the Trailside Discovery Camp, which is one of the most well-known OEE examples in Alaska. During summers, up

to 200 children a day (ages 4-13) experience the outdoor and environmental education model in downtown Anchorage. The facility is run by the Bureau of Land Management and serves over 40,000 people each year through the combination of summer programs, school programs, workshops, special events, and other activities. Pre-school aged children all the way up to older adults have opportunities to participate in Campbell Creek's programs. (Bureau of Land Management, 2008)

### **Outdoor and Environmental Camp Staff**

It is impossible to discuss OEE without mentioning summer residential and day camps. There are numerous seasonal camps with an outdoor and environmental educational emphasis that hire counselors and program coordinators to work with children and teenagers. Nationwide examples of these camps are conducted by the YMCA, the Boy Scouts, Girl Scouts, and Young Life. Young Life does more outdoor adventure education, while the scout organizations and YMCA tend to do more with environmental education. The emphasis on outdoor and environmental education may be different in width and depth, but on some level each of these camps aims for their campers to grow in their environmental stewardship and connection to nature. YMCA camps Seymour, in Washington; Edwards, in Wisconsin; and Storer, in Michigan, each place a strong emphasis on developing an environmental ethic in each of their campers. (YMCA, 2014) (Girl Scouts of the United States of America, 2014) (Boy Scouts of America, 2014) (Young Life, 2014). There are also camps run by smaller organizations all over the country. A few of these include Trailside Discovery Camp, which is conducted at the Campbell Creek Science Center in Anchorage, Alaska (Alaska Center for the Environment, 2014). Falling Creek Camp in North Carolina is another example. Falling Creek has more of an emphasis on outdoor and adventure education (Falling Creek Camp, 2014). Some camps, like Trailside, work with outdoor and environmental centers and use their facilities and staff to help run their camps. Staff positions at these types of camps provide excellent opportunities for OEE students in college or graduate school to gain seasonal employment and professional experience in outdoor and environmental education.

### **Outdoor Therapists**

As mentioned earlier, another genre of OEE is that of outdoor or eco therapy. This subfield is used to address the needs of people who may be lacking some kind of developmental support. Outdoor therapists use a combination of psychological counseling and outdoor activities to serve people with physical, cognitive, and emotional disabilities. Another population served by outdoor therapists is at risk and troubled youth. Adventures, intensive wilderness experiences, challenge courses, and camp style activities are all utilized in outdoor therapy. Potential therapists need specialized psychological and counseling training in addition to the outdoor technical skills used in general guiding and adventure programs (Martin, Cashel, Wagstaff, & Breunig, 2006). Alaska Crossings, based out of Wrangell, Alaska, is an example of a wilderness therapy program for teens. Alaska Crossings runs a wilderness behavioral health program for youth aged 12-18 with the goal of helping those youth "return with the skills and resources they need to be successful in their home, school and community." (Alaska Crossings, 2014) They lead canoeing and hiking expeditions to achieve this goal. Throughout these expeditions, staff at Alaska Crossings strive for individualized therapy, mentorship, and aftercare for their clients. (Alaska Crossings, 2014) Open Sky Wilderness Therapy, Second Nature, New Vision Wilderness, Pacific Quest, and BlueFire are programs throughout the US similar to Alaska Crossings. Some work with only teenagers like Alaska Crossings, while others offer additional programs for children and adults (National Association of Therapeutic Schools and Programs, 2014). Indiana University's Outdoor Center, called Bradford Woods, runs adventure therapy programs for

children with chronic illnesses and disabilities. They hire over 80 staff members each summer to run these camps and programs. (Bradford Woods, 2014) Chicago Adventure Therapy works with underserved inner-city youth to achieve growth in social skills, empowerment, and personal responsibility through the use of outdoor adventure activities and trips. Cycling, paddling, climbing, and orienteering trips and activities are the main programs implemented (Chicago Adventure Therapy, 2014). Each of these organizations look for counselors, guides, educators, and leaders with outdoor leadership and/or environmental education experience and training as part of the qualifications when hiring for seasonal or permanent employment.

### **Wilderness Medicine Instructors**

Organizations such as the Wilderness Medicine Institute, SOLO Wilderness Medicine, and Wilderness Medical Associates International train and hire people to teach wilderness medicine courses. Common prerequisites for taking an instructor's course include extensive outdoor leadership experience, prior medical experience of some kind, various levels of wilderness medicine certifications and training, and experience with outdoor education. Instructors can be trained to teach a variety of wilderness medicine courses including Wilderness First Aid, Wilderness First Responder, and Wilderness EMT. For professionals involved in outdoor education, a Wilderness First Responder certification is the standard for the industry. As the outdoor leadership and education field expands, the need for wilderness medicine instructors also increases. Many instructors teach classes either for supplemental income or as a part of their duties with an outdoor or wilderness organization. Wilderness medicine instructors seldom teach these types of classes as their only job or source of income (Wilderness Medical Associates International, 2014)[\[S1\]](#) .

### **Outdoor Leadership and Wilderness Education**

Like other groups listed above, there are both national and international organizations and individual, localized organizations who need experienced outdoor and environmental educators to train other educators. Many of these organizations both train leaders as well as take groups of people on outdoor and wilderness trips. These kinds of educators need a combination of the hard skills required of professional guides as well as the soft skills to relate to and manage groups of people that are required in camp settings and environmental centers. Leadership, environmental ethic, personal and spiritual growth, interpersonal and intrapersonal growth, technical skills, and experiential learning are often some of the main foci of these types of trips. As discussed earlier, the National Outdoor Leadership School (NOLS) and Outward Bound are perhaps the most well-known and recognized organizations in the country, both of which look for people with outdoor and environmental education training, experience, and abilities to help guide their trips with both youth and adults. "NOLS takes students of all ages on remote wilderness expeditions and teaches them technical outdoor skills, leadership, and environmental ethics" (National Outdoor Leadership School, 2014). Outward Bound uses expeditionary learning to achieve growth of character, leadership, and service, which includes "environmental responsibility", in their students (Outward Bound, 2014). The International Wilderness Leadership School (IWLS), based out of Haines, Alaska also does similar work with outdoor leaders and student. In addition to developing leaders, IWLS is committed to educating their students to become responsible environmental stewards.

IWLS is dedicated to preserving and protecting our invaluable natural environment through education. Understanding the world around us, recognizing its beauty and minimizing our impact within it, are the necessary steps toward a healthy planet and sustainable society. Students on our leadership and

guide training courses develop an understanding and respect for the natural environment. Dedication to minimum impact ethics and environmental education goes with IWLS students beyond our courses. (International Wilderness Leadership School, 2012)

There are also smaller organizations throughout the world that use outdoor trips to train leaders and guide students in developing those skills listed above. The Wilderness Education Association (WEA) specifically desires to train current outdoor leaders and educators or individuals who want training in outdoor and wilderness leadership and education. Rather than conducting trips or classes with students, WEA's goal is to enable and empower educators and leaders to do that (Wilderness Education Association, 2014) Experienced, trained outdoor leaders and educators are needed to coordinate programs, conduct training, guide trips, and design curriculum for these types of outdoor leadership schools and programs.

### **Conclusion**

To summarize, there is a wealth of career opportunities in the OEE field and more representations are popping up all the time as the field continues to grow. Outdoor and environmental educators may have tough decisions in choosing a career path with all of these wonderful opportunities available. Hopefully these brief descriptions of outdoor and environmental education jobs is helpful in guiding readers interested in pursuing this line of work. For further information on specific organizations mentioned, please visit their websites or contact them personally.



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## Can OEE Change the World?

Loree Rayback

### Introduction

With all the discussion on how outdoor and environmental education (OEE) came about, who was involved, what it is, how it is done, there is a critical part of the puzzle missing. That part, just as important as knowing the history of OEE, is simple- why? Why should we know about OEE? Why should we teach it? Why does it matter? The answer to all of these questions is actually very simple, and it is the same answer mankind has had since the dawn of recorded time (and before)- survival. Without the natural world, our ability to survive and thrive in this world is greatly hindered. OEE is one of the keys to spread awareness, knowledge, and understanding of what nature does for us every day.

By bringing together place based, experiential learning with environmental and outdoor themes, students and other concerned people can be given a unique perspective on how to go about implementing solutions to the myriad of environmental problems that are facing our planet. Outdoor and environmental education programs can inform people about the current issues, and then focus on possible resolutions to environmental crisis, but ideally, outdoor and environmental education will also create a deeper sense of connection to the wild places that we must protect. Instead of being distracted by what or how we are learning, learners must become fully engaged in the land, teachers must become intentional, knowledgeable, and aware of the land they are teaching in, and students must be able to look at the land and feel that this is their home (Baker, 2005).

Sustainable and safe practices must be transmitted to the next generation, to prepare the way for our future environmental stewards and policy makers, but merely communicating the facts to them is not sufficient. The way environmental concepts are framed has an effect on how people respond to them. The word "frame" describes the perspective used to talk about concepts, and by using the same facts we are able to draw very different pictures. The perspective can be positive or negative, scientific or emotional. The phrases and words we use to describe activities have social and political connotations that should be considered when we talk about how to change local, national, and global environmental issues. Framing could be determining whether a company is *drilling for oil* or *exploring for energy*, or whether a company is engaged in *development of shale resources* or engaged in *fracking*. (Dickinson, Crain, Yalowitz, & Cherry 2013).

### Environmental Challenges

Putting effective solutions into place require that concerned people, like yourself, identify the social and environmental challenges and then lead the way toward implementing fixes through education and personal action. Extinction of species, increases in greenhouse gas emissions, environmental degradation, and overpopulation - these are large difficult problems. Sometimes, puzzles are so multifaceted and challenging to solve they require solutions that are tough to recognize based on the information we have available. What might be held up as a solution to one set of problems may go against values, know-how, or accepted practices of communities who must implement the solutions, causing a whole new set of difficult challenges that need to be worked out. Social scientists call

complexities like these *wicked problems* to describe how tricky it is to come up with effective solutions. (Wagman, 2006)

The United Nations (U. N.) met in 1972 to study worldwide environmental challenges being caused by pollution, disturbances to the biosphere, destruction and depletion of resources that cannot be replaced, and a myriad of other unsustainable practices that are harmful to man physically, emotionally, and socially. They gathered with the intention of identifying a common outlook and to formulate common principles to guide environmental preservation and enhancement (United Nations, 1972). The results of that meeting have had far reaching and lasting effects with regard to educational programs, creation and enforcement of international laws to protect the environment, especially the oceans and air, regulation of nuclear weapons and other weapons of mass destruction, and more.

The U.N. created the United Nations Environmental Programme (UNEP) and the World Meteorological Organization in 1988, which were specifically established to address climate change. These two agencies jointly created the Intergovernmental Panel on Climate Change - the IPCC - also in 1988. The IPCC looks at information contributed voluntarily by scientists in countries worldwide in order to increase the understanding of climate change.

Framing the concepts of climate change and global warming has an effect on whether people believe it is even happening, in spite of ample scientific evidence. Significant numbers of people still are not convinced that the world climate is shifting and the overall temperatures are rising. Approaches must be considered that can teach learners who have different worldviews, different social experiences, and different values. Framing climate change problems should be done in a way that can be processed, dealt with, and that invites personal action from a variety of populations (Maibach, 2011 cited in Dickinson, Crain, Yalowitz, & Cherry, 2013).

Climate change impacts lifestyle, health, and survival, but framing it from the perspective of alarm and menace, (an approach labeled *fear appeals*), can cause a feeling of being overwhelmed (Dickinson, Crain, Yalowitz & Cherry 2013). One example of a fear appeal comes from a recent press release on a United Nations report that warns "climate change will increase the likelihood of severe, pervasive and irreversible impacts for people and ecosystems" (IPCC, 2014a). That same UN report that warns of imminent impacts from climate change also offers hope that there is still time for governments to prevent the most serious devastation from occurring, and outlines systematic steps to address the problems (IPCC, 2014b). Choosing to approach local pollution or unsustainable practices from a solution based attitude can often lead to better results than viewing dilemmas as problematic.

## **Health Concerns**

Carrying the concept of framing even further, focusing on the capacity individuals have to work together to cause change can connect them with the issues. Drawing associations between environmental issues and animals, birds or plants can cause people to feel empathy or compassion, and frames issues in a way that stimulates action. Evoking a sense of loss for nonhuman organisms can also produce a desire to protect them. (Dickinson, Crain, Yalowitz, & Cherry 2013) Exposure to has been shown to help patients with mental issues as well. Researchers with the American Journal of Public Health performed a study in 2004 with children who were diagnosed ADHD (Kuo, Taylor, 2004). They worked with 339 children, comparing the childrens' performance on tests after walking them through 3 different settings- green outdoors (natural setting), built outdoors (manmade or man modified settings such as parks and parking lots) and indoor settings. The results showed that green

settings, natural settings, alone out of all the settings, had the best impact in helping the children perform better.

Burmen and Jonides and Kaplan published a study in Psychological Science also showed that nature improves cognitive functions (Berman, Jonides, Kaplan, 2008). This study focused on comparing the results of two groups, one of which did walks in the nature, the other which did not. Their conclusion was that the group that walked in nature experienced less stress and depression.

According to Meyers, et al., research showed that simply observing a landscape helped people calm down (Falk, Heimlich, Foutz , 2009). Shibata and Suzuki, who worked for the Bunkyo Gakuin University in Japan, conducted a study showing that even the simple presence of a plant can have positive effects on people. They found that, out of the three settings they tested (an empty room, a room with a magazine rack, and a room with a plant), students performing tasks that required creativity performed better in the room with a plant (2004).

Wicked problems such as climate change, environmental pollution, the unmitigated exploitation of our natural resources and the rapid depletion of water in natural aquifers worldwide have grass roots movers and policy makers alike searching for answers. (IPCC, 2014a) If we identify specific, community based social and environmental challenges and then lead the way toward implementing fixes, we can attack these problems at the grassroots.

The U.N. now has the technology to use international data to predict future climate trends. Local policy makers are able to use this data to mitigate the impact climate change will have on particularly vulnerable populations in their region by changing policy to require more sustainable practices and requiring adaptation to more environmentally responsive practices. Costs of taking action to alleviate human-made (anthropogenic) environmental impacts are high but the risks and costs of inaction are much higher because climate change is progressive, and will eventually surpass man's ability to adapt. (IPCC, 2014c) The IPCC has created four intergovernmental groups to work on the physical science of climate change; on the vulnerability of socio-economic and natural systems to climate change; on the options for mitigation of climate change; and on the Green House Gas (GHG) inventories to develop an agreed upon way to calculate and report national GHG emissions and removals. They have also established a task force to help put together regular reports for the U.N. secretariat, which come out every few years. The most recent report, the fifth report since the inception of the IPCC, came out in November, 2014, and advises that in order to remedy serious global warming trends on land, air, and sea that causes climate change, changes that are caused by human activity, will ultimately require collective human effort - local solutions applied in cooperation with other localities all over the world (IPCC, 2014b). The results of the U.N. advisory panels have come to the following conclusion:

***"Effective mitigation will not be achieved if individual agents advance their own interests independently. Climate change has the characteristics of a collective action problem at the global scale, because most greenhouse gases (GHGs) accumulate over time and mix globally, and emissions by any agent (e.g., individual, community, company, country) affect other agents. International cooperation is therefore required to effectively mitigate GHG emissions and address other climate change issues" (IPCC, 2014)***

The International cooperation the above quote refers to is occurring in many ways, most notably through environmental non-governmental agencies (ENGOS). The worldwide Environmental Movement, also called the Green Movement, is being manifested through international agencies such

as The Nature Conservancy, Birdlife International Partnership, The World Wildlife Fund, The WWF Global Conservation Organization, The Wildlife Conservation Society, The International Fund for Animal Welfare, Conservation International, and The Wildfowl and Wetlands Trust (Jepson, 2005).

People acting locally in grassroots ENGOs usually start up in response to environmental concern over local business causing pollution, and are not as involved with changing policy as much as trying to get enforcement for laws that are already in place (Cable, & Benson, 1993). National US ENGOs some with origins that go back to the early 17<sup>th</sup> century, usually begin as a local organization, and then grow. Notable examples of National ENGOs that are highly involved in environmental policy making and reform include the Sierra Club, the Audubon Society, and the Natural Resources (Natural Resources Defense Council, n.d.).

Greenhouse gas emissions during the 20<sup>th</sup> century have raised the earth's ground temperatures to greater or lesser degrees depending on location (i.e. thermal advection feedback mechanisms). Two exceptions to this global warming trend are over the subarctic North Atlantic ocean and the equatorial eastern Pacific ocean, where there has been a cooling trend caused by circulation of melting ice-cap fresh water into those ocean waters (Kim & An, 2013). Global warming has changed the temperature of the world, but temperature is just the tip of the iceberg, so to speak. Global temperature rise impacts agriculture, leading to food uncertainties; causes human illness such as heat stroke and arthropod born disease; increases the severity, duration and presence of drought; is responsible for flooding, soil erosion, and sewage overflows; and causes socioeconomic crisis, such as the necessity to move populations away from coast lines due to rising sea levels. (Singh & Purohit, 2014)

## **Stewardship**

Humans, out of all the animals on the planet, have the greatest ability to modify the plants, animals, and even the land itself to fit our needs and desires, thus perpetuating the wicked problems. This ability to modify the environment to fit our needs is a powerful one. Now, more than ever, we must examine our role on the planet, and transition from the role of consumers to the role of stewards. What does it mean to be a steward? In the days of feudalism, a steward was the lord's right hand, tallying the wealth, and making appropriations as to how resources should be spent. A good steward was able to take the needs and desires of lord and land, and balance them.

Future stewards will need the knowledge and understanding to effectively combat the environmental changes that are happening in and on our world. Outdoor education, that is, learning in the outdoors, about the outdoors, is a response to a disconnect happening in the United States and elsewhere when it comes to understanding our natural environment. Educators can help their students

...discover an engagement with the land that extends beyond simply knowing the names of trees, to include a personal approach of relating to the land. This discovery is not only a site-specific sense of place, but also an ongoing relationship with land that transcends time and place. The essence of landfulness is when the personal process becomes less intentional and more a part of our identity-in other words, relating to the land is a part of who we are (Baker, 2005).

Visiting and enjoying those beautiful outdoor places causes us to become familiar with them, to keep them clean and healthy. And a healthy environment leads to healthy individuals. Going outside is good not only for the places we visit, but it is good for us too. Spending time in nature, gardening, camping,

fishing, all contribute to greater physical and mental health (Louve, 2012). The effort to change the planet into a healthier place will be motivated by the will to care about those outdoor places. In order to remedy environmental pollution and unsustainable practices, we must educate ourselves. Identification of wicked problems is the first step to fixing them.

However, stewardship did not die out with the fall of feudalism. We still have resources that need to be managed, to the benefit of all. The natural environment in all its incarnations that we can so easily modify is one resource that we should manage, but also one of the most difficult to balance. It stands to reason that we need to care for the place that we live in, to prosper as a society. We must protect, and not exploit the resources we have left.

Exploitation of natural resources can be defined as overuse, mistreatment, depletion and over extraction of those parts of the natural environment that have perceived value, such as water, fossil fuels, timber, fisheries, and metallic ores. Natural resources can be thought of as renewable and nonrenewable. Nonrenewable resources have a finite supply, and include fossil fuels, metals, and minerals. Renewable natural resources can be further divided into potentially renewable resources, that is, "biological renewables which encompasses fish, forests, whales and biomass among others," and a second group of continuously renewable resources, which "comprises hydro, solar, tidal, wind and wave power which are non-biological" (Jowsey, 2006)

The cost of using natural resources includes how much of a resource is available and how long it takes to renew the resource, so as stocks are depleted, the "user cost" goes up.

*User costs... are highest for the nonrenewable resources and lowest for the resources in the group including solar power. Those resources which have collectively been termed biomass resources (although freshwater displays many of the same characteristics) have user costs which are between these extremes. (Jowsey, 2006)*

In some cases, unsustainable exploitation of wildlife has caused a reduction of biodiversity to such an extent that wildlife managers struggle over how to safeguard the natural resources under their care. In Africa, for example, recent legislation aimed at protecting fisheries and wildlife has been enacted, that while well meaning, has not completely served its purpose. Problems have cropped up by trying to balance conservation with sustainable use through community-based resource management. When communities are charged with wildlife conservation, but do not conserve the wildlife, then efforts need to be redirected toward a plan that will work. Poverty, attitudes about "the negative value of wildlife" and lack of acceptance of policies have had to be taken into consideration when creating wildlife management plans. If laws are enacted that prohibit killing wildlife, local people who are hungry will still kill the wildlife and eat it even if they have been asked to help safeguard it. Programs which try to alleviate the situation sometimes do not take into consideration the needs of the entire community. If just some of the community members are given jobs aimed at regulating the wildlife, the rest of the community remains in poverty and in addition resent the ones with jobs. Cultural practices and traditional use must be respected and taken into consideration when developing management plans. An attempt to manage wildlife in one community, which was not effective, replaced traditional hunting practices with an arts and crafts program so that the villagers could sell handmade items to tourists. Another difficulty to wildlife management is roving poachers who are not part of a community, but outside of it, so community-based management has no influence on them. One model that seems to work against outside poachers is community policing. "Tanzanian villages are encouraged by a reward scheme to carry out anti-poaching operations. Villages are financially rewarded for each poacher's

camp destroyed, per wire or steel cable snare, per rifle/shotgun recovered and per poacher arrested and convicted." (Algotsson, 2006)

An enforcement model that was only partially successful occurred on the Western Cape of Africa. The end solution points to community-based resource management, but one that is tempered with training and assistance for local managers.

*"Increased law enforcement visibility along the coast was implemented to deter abalone poachers. The special operation had a broad positive impact on crime in the area and made people feel safer. However, the effects from the operation were short term and have even been described as having negative long-term impacts on the poaching activities in the area. Not only did the modus operandi of the poachers adapt to the activities of the police, including increased possession of dangerous weaponry, but also the characteristics of the offenders changed from community members to violent gangs and international crime syndicates. Fishers, local authorities and local organizations felt that they should be assisted to develop coordinated strategies to address the problem rather than rely on short-term solutions from outside." (Algotsson, 2006)*

A similar example to that of Zimbabwe is training local managers who can share technology driven data with farmers is the next step to creating a successful resource management system in the country of Yemen. The resource in Yemen which needs regulation is water. In the 1990s, groundwater depletion came to the attention of local people. They decided to try involving the people who were affected by the groundwater depletion, and then forming laws and institutions to control water extraction, regulate farming practices, and enforce irrigation efficiency. The policy makers speculated that because unsustainable water use practices had been developed over a period of decades, successful implementation of sustainable groundwater management should also take a period of decades (Al-Sakkaf, Zhou, & Hall, 1999). Further water laws and policies enacted in the 2000's did not turn out to be entirely successful at controlling water use, due to an inability of managers to enforce the laws, which was directly related to an inability to measure where and how much water resources actually existed. Then, in the following decade, new technology, in the form of satellite imaging, was used to remotely sense groundwater level changes to provide essential information to environmental manager. Information alone was not sufficient to solve the management issues, though, because staff training was needed in order to be able to use the information. Communication between agencies and scientists was another important goal, and so training and programs were created that provided ongoing support to train them all to collaborate. Farmers, who are at the apex of the situation, asked for help to address another two issues - a lack of trust between themselves and policy makers, and competition between farms as water levels continue to drop.

Locating the best available developmental model, one that would address as many of these issues as possible, was the next step. Integrated Water Resources Management (IWRM) was named as "a model for best practices in water management" because it employs a variety of instruments and policies, and specifically addresses the two important issues of 1. how to ensure equity in the allocation of water resources and 2. raising the level of collaboration between the farmers and the policymakers. (Moore & Fisher 2010)

Yemen is not alone in water management challenges. All over the world, the groundwater in our ancient aquifers is being used faster than it is being replaced. In some places, like the western Mexico aquifer, the Northern Arabian Aquifer, and the Upper Ganges aquifer, the water is being depleted at a rate that is critical (Gleeson, Wada, Bierkens, & Van Beek, 2012). Depletion of groundwater in India

causes extended droughts, and creates demands for policy makers to resolve questions such as who owns the water and how equitable property rights can be established (Ramjan, 2014).

Of course, not just humans are affected by unsustainable practices. Environmental pollution is causing mass bleaching of coral reef systems around the globe, a worldwide epidemic of giant fibropapilloma warts growing on sea turtles, and a decline in the oceans phytoplankton populations by 40%. Environmental pollution is causing colony collapse disorder which is killing off large populations of honeybees, and bat populations plagued by the deadly virus that causes White Nose Syndrome are dying en masse. Amphibian population crashes caused by chytrid fungus are direct results of environmental contamination. (McCrink-Goode, 2014)

## **Conclusion**

Mere education about all of these challenges is not enough, we must also generate in ourselves and others the incentive to act, to put into practice our individual and collective ideas to provide the care the world needs. "All we need is the will to change, which we trust will be motivated by knowledge and an understanding of the science of climate change," IPCC chairman Rajendra Pachauri said (Ritter, 2014).

In order to change our world for the better, the ultimate need for current and future generations is to become united in our capacity to care and to act. If we are to survive, we must reexamine our roles and actions on the planet. Then, like the stewards of old, we must take a step back and reassess our use of the resources available to us. Only then can we move forward to develop a better and more mutually sustaining relationship with nature. We believe that the kinds of educational practices that are found in all the different genres of outdoor and environmental education are crucial players in creating such a sustainable relationship. When we all work to ensure the future of our own local ecosystems, we can ensure the future of every local ecosystem on the earth. Because, in reality, there is just one ecosystem available to humanity at this juncture, and that is our biosphere, which includes us all. We hope that becoming literate in the language of outdoor and environmental education is an important step in that direction for those who hope to lead such change.



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## Future Trends in Outdoor and Environmental Education

Andrea Grenier

### Introduction

The fields of outdoor and environmental education (OEE) are continuously growing and evolving. The previous chapters showed the evolution that has taken place in these two industries, and how OEE has always adapted to the culture and educational needs of the times. This chapter will look at the predicted future trends in these two fields based on the information from the previous chapters as well as other studies on current user groups and curricula developments. Future trends in OEE show a large movement towards urban and school based programming, and natural resource preservation. Ironically, these two trends are being driven by opposite forces. One trend is caused by an under use of outdoor space, and the other is caused by over use. Urban and school based trends are due to the fact that the remote wilderness we often think of as *outdoors* can be inaccessible to many living in city environments, particularly youth. Natural resource management trends are predicted based on a higher level of general use of National, State, and Public lands. These trends stem from a change in demographics of those interested in OEE, a movement to get youth outdoors, and an increase in use of parks and public land. It is predicted that if these trends continue, OEE is likely to start becoming incorporated into school standards, increasing urban community programming, and providing instructors with more certifications in order to receive accreditation for programming.

### Change in User Demographics

Before looking at what changes are predicted, let us first look at what is causing these changes to occur. The outdoor recreation industry is no longer dominated primarily by upper and middle class families with disposable income. There has been a shift in user groups of OEE programming stemming from a number of factors. The first being a rise of income and education which are positively correlated to participation rates in OEE programs; people of both sexes have more money to spend on family activities due to higher paying jobs resulting from higher levels of education (Attarian 2001). These same factors are creating a market for "quality family time." With an increase in single parent homes as well as homes with both parents working full time, parents have an increased interest in how they spend the precious time they have with their children (Recreation Programming 1994). People are not just looking for a get-away; they are looking for educational family activities (Falk, Heimlich & Foutz 2009).

In addition to an increase in family focus, there has also been an increase in middle aged women participating in outdoor recreation. According to a study from 2001, the most seen client demographic in outdoor industry is a 47-year-old woman (Attarian 2001). Perhaps this is the most common age for women to have their children leave the home. Maybe with a new sense of freedom, they are able to do the things they had always wanted to but could not while maintaining maternal responsibilities. OEE educators can only speculate as to why this increase in middle-aged female users is occurring, but it is known as fact that these changes are happening and that OEE programs must adapt to these changing demographic tendencies.

## OEE in Schools

The most prevalent future trend in OEE is an urban movement. Rather than bringing the youth in cities to the open remote places often associated with outdoor and environmental education, which is often expensive and logistically challenging, educators have begun using the outdoor spaces within the city to conduct their programming. School partnerships have played a large part in this growth of urban OEE; however, Seaman and Gass predict that OEE (particularly outdoor education) must find its way into Common Core standards in order to be fully adopted by these institutions (2004). Their argument supporting this push for new education standards stems from a current trajectory of a decrease in school funding. If this trajectory holds true, schools will be more accountable than ever to justify the programming they partake in with their students (Seaman & Gass 2004).

It is no secret that getting kids active and outdoors is beneficial for their health and wellness; however, this information alone is not enough to justify outdoor and environmental programming in schools. Teachers have countless national and state standards they are required to cover each year, and because of this, programs that they choose to participate in with their students during school hours must cover some of these. Many OEE programs do already cover these standards, and are starting to prove this in their curricula. For example, the Alaska Department of Fish and Game's curriculum, *Salmon in the Classroom*, covers many life science standards and has been widely used in multiple Alaska school districts. The *Kids Don't Float* curriculum is another example in Alaska. This curriculum covers several health standards and is also widely used across the state. The success of these curricula, in part, has to do with the effort put in by the curricula designers to adapt these programs to fit the schools' needs. These curriculums offer experiential education approaches to teaching on subjects that school teachers are already required to cover based on national standards.

While there are several environmental education organizations already adapting to school standards, not only in Alaska, but in the United States as a whole, outdoor education is likely to need to find ways to adapt to include more of the Common Core standards. This is not going to happen naturally; outdoor educators must take initiative finding their place in existing standards and contacting legislative representatives requesting an increased focus of outdoor education in the required school standards. Seaman and Gass even criticize outdoor education for not being willing to, thus far, make more of an effort to adapt to state or national standards (2004). This should not come as much of a challenge since outdoor education has maintained a strong goal of transferability since its beginning. As Seaman and Gass have said,

*"Scholars and practitioners in outdoor education have used the notion of transfer, and have developed theories and practical strategies for facilitating transfer that lend themselves to a variety of experiential applications" (2004).*

The idea of transfer in outdoor education is seen in the high priority of debriefing after program activities. This is where outdoor educators facilitate a discussion among students helping them understand the greater concepts that they learned during the experience and look for other areas of their lives to which they can apply this learning. Through the concept of transfer, outdoor education can look beyond the physical education standards and even look to teaching students other subjects such as reading and math. It is with a focus on such methods that OEE can reach even the most populated, diverse cities.

"If outdoor educators believe their practices benefit diverse students in the interests of an educated, democratic populace, and believe access to outdoor programs should be open to the most disadvantaged students, the field should increase its involvement in public education policy development" (Seaman & Gass).

### **OEE in Urban Environments**

As learned in earlier chapters, OEE can be beneficial to students both mentally and physically, and in addition can be both therapeutic and enjoyable (Neill 2001). Studies show that there is a correlation between amount of time spent in the outdoors and fear of crime. The more time students spend recreating outdoor or participating in physical activities, the lower their fear of crime becomes (Shinew, Stodolska, Roman & Yahner 2013). These open spaces are clearly needed, even if they are smaller than what we typically picture using for OEE. Our goal as outdoor and environmental educators should be to help students of all ages to understand their need for those places and teach them how to care for them and preserve them for future generations. Many outdoor education programs are starting to utilize artificial environments, such as indoor climbing walls, as a tool to raise the level of efficiency of their curriculum (Attarian 2001). While this is a resourceful way to teach outdoor education in an urban environment, it is important not to forget to bring it all back to the outdoors. It is the outdoors that Neill claims will potentially help overcome future challenges in society (2001).

The goal of OEE is to get students outdoors into their environment, and this will obviously look different in urban settings than in rural settings. D.R Daug's explains in his book, *Urban Outdoor Education*, that students need to understand that they have plants, soil, and living organisms in ecosystems all around them. He gives several examples of ways to use urban environments as an educational advantage. For instance, look at the types of plant life found growing through cracks in a parking lot (an example of a harsh environment) and compare your findings to a garden or lawn that is man-made and groomed (an example of a fertile environment). What are the physical differences in the plants found in the two environments? Allow the students to speculate for themselves about what causes these plants to thrive in different environments. Look at the mushrooms residing on the log in the park. Examine moss growing on the side of a building. There are countless ways to utilize an urban environment to teach OEE. Many urban teachers take their students on field trips to places such as museums to learn about environmental topics, when really, they just need to step outside their schools' doors (Daug's 1978).

### **OEE as a Community**

In addition to teaching school required subjects and contributing to mental and physical health (as discussed in previous chapters), OEE can help strengthen community relationships and partnerships. Place-based education is a relatively new concept for OEE, but it is one that is likely to continue to be used in the future. The idea behind place-based education is to develop an attachment or appreciation to a particular space through its history, culture, economics, and environment. As Australian outdoor educator, James Neill, stated,

"Through interaction with the natural world, outdoor education aims to develop an understanding of our relationships with the environment, others, and ourselves. The ultimate goal of outdoor education is to contribute towards a sustainable community" (2001).

Developing community, understanding the individual's role in community, and practicing peer leadership skills are all a large part of what OEE hopes to accomplish. Projects such as the learning garden begun by Veronica Gaylie have played major roles in the development, and the idea of schools using outdoor gardens as a tool for education (Tomasek 2010). This concept is currently growing and becoming more wide spread across the United States. In Detroit, communities are organizing neighborhood tree plants to help improve the appearance of their city (Clayton and Opotow 2003). Bringing communities together fulfills the desire for family time as discussed by Falk, Heimlich & Foutz, is often appropriate for outdoor and environmental enthusiasts of all ages, and provides the previously discussed health benefits to all participating community members (2009).

While there are many similar community projects happening across the country, Grow Palmer is one example of this effort in Alaska. "Grow Palmer is a grassroots movement dedicated to creating lasting change in our local food system, fostering connections with community, businesses and traditions of Palmer: including plants, animals, and soils that produce our food (Newman, 2003)", started by a local woman with several small city gardens in the center of town. The idea was that anyone could help to weed and care for the plants and anyone can harvest. The organization also hosts short educational events to teach how to cook with and prepare the more unique plants. This project has gotten people of all ages outdoors, trying healthier foods, and learning about the types of local plants that grow in their environment all in downtown Palmer, Alaska. While Palmer is a farming community, many residents still have no contact or knowledge of this sort about the natural world. Seaman and Gass pass along this challenge to outdoor and environmental educators,

"Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all they have to contribute to building up experiences that are worthwhile" (2004).

It would be a disservice to participants to cause them to believe that OEE can only be experienced in remote wilderness settings far from society. Instead outdoor and environmental educators should foster an interest in learning about the outdoors and surrounding environment and empower their students to decide for themselves where in the outdoors they want to learn next.

## **Natural Resource Management**

The good news is that the past efforts of OEE are indeed working. There has been an increase of Parks and Public Land users across the United States. The bad news is that there has not been a large increase in parks and public lands. With the increase in users, it is predicted that natural resource management will become stricter on user qualifications and will seek higher accreditation from OEE organizations, particularly for larger groups or projects likely to take an extended amount of time. In addition to this, it is likely that there will be an increased user fee for smaller groups and day passes in many areas. Regardless of group size, the level of certification of staff is predicted to rise in order to receive the approval for land use (Attarian 2001). Park interpretation has evolved to include translated information in areas with a high population of non-English speakers, and many parks have become more user-friendly to those with disabilities by including more paved trails, thanks to the work of park directors like Lewis Ledford in North Carolina (Parks and Recreation 2011). These land managers are providing increased access to more user groups and getting them into the outdoors.

This is exciting for OEE educators to watch; however, it then becomes the responsibility of the land managers to ensure that the public lands and state and national parks stay in a well-preserved and enjoyable state.

### **Certification of Staff**

Certification has been a hot topic of discussion in the outdoor industry since the 1970's. The notion has been in debate due to the fact that an individual may pass all tests or required assignments and receive the desired certification but may still lack "soft skills", or interpersonal skills, which are highly valued in the OEE industry. However, it is also easy to argue that there must be some sort of industry standard for OEE instructors. To overcome this problem, outdoor education instructor programs and OEE college programs have been striving to train future instructors in both outdoor skills proficiency and the necessary interpersonal skills that the fields require.

It is predicted that there will be an increase in the number of colleges that offer OEE degree programs, and these programs will likely focus even more on skills such as teaching methods and classroom/group management, especially if school-based programming continues to evolve as predicted. The need for well-educated instructors is only going to increase if the current growth of OEE continues, both in urban environments and the more traditional forms, because of the current culture in America where there is generally larger amounts of free time, a greater awareness of health and wellness, advances in technology, media exposure, the search for unspoiled nature and authentic experiences often coupled with a higher level of environmental awareness, and the shift from a work ethic to a leisure ethic (Attarian 2001) (Larson, Whiting & Green 2011).

### **Leave No Trace Training**

An important part of OEE training is best current practices of nature preservation. This is only likely to become more intensive with the increased user rate in parks. There is little land left in the world that is pristine wilderness; places with no trace of human encounters. Unfortunately, it is all too often that trash is discovered on popular hiking trails, toilet paper litters favorite back country treks, and old campfire pits are left as markers of former campsites.

Currently, the leader in sustainable outdoor use training is "Leave No Trace." "In the early 1990s, the Forest Service worked with the National Outdoor Leadership School (NOLS) to develop hands-on, science-based minimum impact education training for non-motorized recreational activities. (History of Leave No Trace, 2012) Since then it has developed into a separate entity, and provides training in their signature "7 Principles" for sustainable outdoor practices all over the United States and the world. Future OEE educators are likely going to be required to receive this training for two main reasons. The first, so that they can manage large groups in wilderness settings leaving the smallest impact possible on the land, and second, because they are also going to be charged with passing this information onto their students who will become future users of the land, and potentially, future OEE educators. By stressing this training, OEE educators hope to create responsible, positive exposure to the outdoors that OEE educators hope to use to create good stewards of the environment and healthy populations (Simon & Alagona 2009).

### **Conclusion**



In conclusion, both of these trends, an increased urban movement and an increase in park and public land use, should come as an encouragement to OEE educators. They are currently seeing the effects of past efforts made to get people outdoors as more people engage in outdoor and environmental education programs and make an effort to engage in these activities on their own helping them to pursue healthier lifestyles. The future trends in school-based education are not predicted to replace the more *traditional* forms of OEE, but rather serve as a potential addition to what currently exists. It is a way to reach millions of children in the United States, especially if OEE enthusiasts rally together in an effort to see OEE become included in State and National Education Standards. Imagine the potential impact that this movement could make on our country's health and nature preservation.

While these two trends stem from seemingly opposite causes, they actually have the potential to work extremely well together towards common goals. The drive behind trends of tighter control by land management is not to lessen the number of people per se; rather it is an effort to preserve our natural resources. OEE educators must evolve their efforts to reach children in schools and provide them with the experiences necessary to teach them to enjoy the outdoors and how to preserve the environment. It is possible for all people to be able to enjoy the outdoors having a limited impact and preserve our natural environments.

It is also important for outdoor and environmental educators to remember that children are not the only ones that like to play and learn in the outdoors. Demographics are changing across the board. There is far more diversity in general than ever in the past, and what cannot be forgotten in a discussion of OEE future trends is the current demographics of OEE users. It is important for OEE educators to constantly reevaluate their methodologies and consider whether or not their current practices are serving the best interests of their users while meeting the goals of the industries. Outdoor education and environmental education are rapidly evolving fields. Future trends are ever growing and evolving with the world culture, which is changing faster than ever with the rise of technology. While there is a justified concern for not only our natural places, but our planet as a whole, there is still hope; for as Gandhi reminds us, "the future depends on what you do today."

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