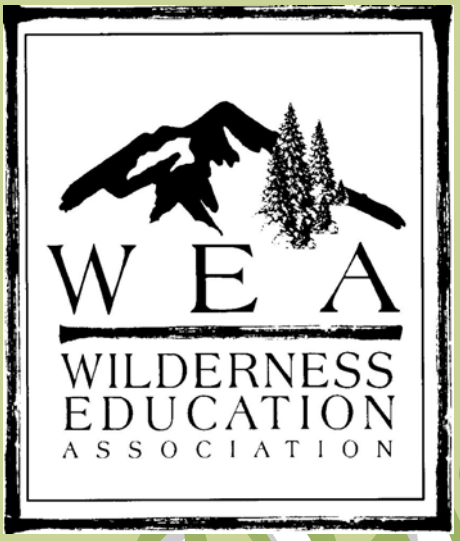
Wilderness Education Association

Proceedings of the 2006 National Conference on Outdoor Leadership

Turning Purpose into Action



February 15-19, 2006

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"Turning Purpose into Action"

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Edited by

Maurice Phipps, Ph.D.
Western Carolina University

Aya Hayashi, Ph.D.
Indiana University

Published by

WEA National Office
900 East 7th Street Bloomington, IN 47405
812.855.4095 voice
812.855.8697 fax
wea@indiana.edu

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Introduction & Acknowledgements

To all WEA Members, Conference Attendees and Outdoor Professionals:

Thank you for your continued support of the Wilderness Education Association. Special thanks and gratitude go to this year's 2006 Conference Committee (Mary Williams, Kristin Pothier, Dave Calvin, Andy Ballard, and Jim Lustig) for coordinating an outstanding five days of workshops, training, guest speakers, awards, vendors, socials, discussions, debates and networking at Bradford Woods in Martinsville, Indiana. We would also like to thank the folks from Bradford Woods especially Adam Ferris and Elizabeth Powell for their hospitality and excellent accommodations.

In the following pages, you will find the WEA's 2006 National Conference on Outdoor Leadership Proceedings. The WEA truly appreciates the time, effort, research, and practical field application of our workshop presenters and their willingness to share their work to improve our profession.

This is an exciting time for the WEA as we are growing in membership and instructors. Each year more and more WEA courses are being offered across the country and now into other parts of the world. The WEA is excited about what the future has to hold and each of you is an instrumental part of that future. Thank you to everyone that has contributed to the WEA over the years and welcome to those of you exploring the WEA for the first time.

Lastly, I wish to thank Dr. Maurice Phipps and Dr. Aya Hayashi for compiling, editing and formatting these proceedings.

Chris Pelchat
President of the Wilderness Education Association

A Brief History

The Wilderness Education Association helps people enjoy and protect our nation's most precious resource: Our wilderness areas. The WEA has been training and certifying outdoor leaders around the world for nearly 30 years, teaching students safely and effectively to lead groups in the outdoors without harming the environment.

In addition, working with national conservation groups and government agencies, the WEA educates the general public in how to appreciate and conserve the wilderness through special curricula and public service information campaigns.

Legendary mountaineer Paul K. Petzoldt, Chuck Gregory, Robert Christies, and Dr. Frank Lupton, founded the WEA in 1977. The organization's mission includes "…promoting the professionalism of outdoor leadership and to thereby improve the safety of outdoor trips and to enhance the conservation of the wild outdoors…"

The WEA founders set out to develop an organization that could train outdoor leaders, instill a sense of stewardship toward the wild outdoors, and provide the skills and knowledge necessary to lead and teach the public in the appropriate use of wilderness areas. The result is one of the most comprehensive wilderness education and outdoor leadership training organizations in the country.

The WEA 18-point curriculum emphasizes experiential teaching in the field with a primary focus on judgment and decision-making. WEA course graduates not only know their abilities, but also learn to respect their limitations.

WEA courses are offered through a network of 50 accredited affiliates around the world. Many WEA courses earn college credit.

Consulting and program development services are an integral part of the WEA mission. Contact the National Office regarding curriculum development, risk management, instructor recruitment, and standards for outdoor leaders.

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2006 PAUL PETZOLDT AWARD LECTURE

Dr. Christine Cashel
Oklahoma State University

Thank you for this wonderful and meaningful honor.
Many years ago I was read the following passage and I have read it to every group I have been with in the field since. So tonight I would like to share with you words that resonate with me - perhaps they will mean something to you also.

SOME PEOPLE DO NOT HAVE TO SEARCH, THEY FIND THEIR NICHE EARLY IN LIFE AND REST THERE SEEMINGLY CONTENTED AND RESIGNED. THEY DO NOT SEEM TO TAKE IT SERIOUSLY. AT TIMES I ENVY THEM, BUT USUALLY I DO NOT UNDERSTAND THEM. SELDOM DO THEY UNDERSTAND ME.

I AM ONE OF THE SEARCHERS; THERE ARE, I BELIEVE, MILLIONS OF US. WE ARE NOT UNHAPPY BUT NEITHER ARE WE REALLY CONTENT. WE CONTINUE TO EXPLORE LIFE HOPING TO UNCOVER ITS ULTIMATE SECRET. WE CONTINUE TO EXPLORE OURSELVES HOPING TO UNDERSTAND. WE LIKE TO WALK ALONG THE BEACH.WE ARE DRAWN BY THE OCEAN, TAKEN BY ITS POWER, ITS UNCEASING MOTION, ITS MYSTERY AND UNSPEAKABLE BEAUTY.

WE LIKE FORESTS AND MOUNTAINS, DESERTS AND HIDDEN RIVERS AND LONELY CITIES AS WELL.

OUR SADNESS IS AS MUCH A PART OF OUR LIFE AS IS OUR LAUGHTER. TO SHARE OUR SADNESS WITH ONES WE LOVE IS PERHAPS AS GREAT A JOY AS WE CAN KNOW- UNLESS IT IS TO SHARE OUR LAUGHTER.

WE SEARCHERS ARE AMBITIOUS ONLY FOR LIFE ITSELF, FOR EVERYTHING BEAUTIFUL IT CAN PROVIDE.

MOST OF ALL WE WANT TO LOVE AND BE LOVED- WE WANT TO LIVE IN A RELATIONSHIP THAT WILL NOT IMPEDE OUR WANDERINGS, NOR PREVENT OUR SEARCH, NOR LOCK US IN PRISON WALLS; THAT WILL TAKE US FOR WHAT LITTLE WE HAVE TO GIVE. WE DO NOT WANT TO PROVE OURSELVES TO ANOTHER OR TO COMPETE FOR LOVE.

THIS PASSAGE IS FOR WANDERERS, DREAMERS AND LOVERS WHO DARE TO ASK OF LIFE EVERYTHING, GOOD AND BEAUTIFUL.
(Author Unknown)

Before I begin my remarks I would like to talk a little about Paul Petzoldt as I knew him. He was my teacher in so many ways- in the field, talking and debating topics and serving on the Board together. He was a tough teacher. Kicking pots and pans into a fire-pit got the message across about maintaining messy kitchen areas. I was one of the lucky ones. Paul

liked me and he took time to share many ideas and thoughts with me on several trips and then over the years when we visited with one another.

He was a writer and scholar. He could quote long passages of poetry. He would recite Robert Service to us and I took on the philosophy of “a promise made is a debt unpaid” because of it. He could sing some pretty amazing cowboy songs too.

He taught me that outdoor leadership is serious business. We were to lead others safely and enjoyably and to know “why” about anything that came out of our mouths! Reading out of a notebook was taboo. He would challenge us as instructors to bring a group in without one blister (the prize was a case of beer). After 35 days in the field, it was a fine prize. The point was there are no small details. Being prepared and preventing further problems was a skill like any other.

He taught me to put others first. Paul intensely disliked selfish people. He would make sure a group would run out of food so he could observe the reaction to limited food resources. If someone horded food they were doomed. All food, all equipment, all abilities, all clothing belonged to the group. Even as instructors we worried if we smuggled in a few extra treats!

Paul was an amazing person. But, he was just a person, no greater or lesser than any of us. He had his faults and his blessings. Knowing him affected my life deeply. I am so glad I did know him as I did.

As I was thinking about this presentation it occurred to me that:
ALL I REALLY NEED TO KNOW I LEARNED THROUGH WEA.

It is true! The more I lived the WEA curriculum, the more I found that it influenced my personal and professional life away from the field. For example, I used the 18-point curriculum to train residence hall staff at Temple University. I did not call topics “Expedition Behavior” or “Environmental Ethics” rather I would rename the concepts to “Getting Along with Others” or “Taking Care of our Surroundings”. It worked great.

I found that I would pay attention to individuals and the way I would interact with them. The same was true when working in small groups or larger organizations. I taught my students by creating opportunities for them to learn about themselves and how to get along with others - to develop individuals and groups is a meaningful role in life.

WE CALL THIS EXPEDITION BEHAVIOR!

There are numerous choice points in life - - to continue or not. We must make the choice points conscious. A long time ago I almost died on a mountain in Nepal. We were ill equipped, clothed and prepared for a spontaneous change in itinerary over a pass that was 17,800 feet high. As we climbed each of us experienced various stages of hypothermia. One woman disrobed. The rest of us would climb a little or sit in the snow. For me, I remember thinking that it would be so easy and so nice to lie down and go to sleep. I knew the end result would be dying on that pass and that would be really hard on my family. So, I would get up -

- go a little further and sit or lay down again. Finally, we were called down when we were at about 17,500 feet. All of us tripped, stumbled or fell back to our starting campsite. The next day no one could talk about the experience for many hours. Finally, we were told that probably half the group would have died overnight because our porters had quit earlier on the climb so we had no additional clothing or sleeping bags and the hut we were destined for had no firewood. I was convinced that I would have been among the departed.

The result of that experience was to learn more about outdoor leadership and not to trust authority all of the time. Our leaders made some selfish and foolish decisions. I never wanted to be responsible for someone's death in the field.

WE CALL THIS JUDGMENT/DECISION MAKING!

In the outdoors we are exposed to intentional living. Living the essence of our-selves in - - sometimes hostile conditions. We have to face the fact that we have abilities and limitations each day. It is why I have always insisted that every person learn every job in camp. If a participant knows how to do a skill, then I challenge them to teach another and then present "their" student's skill once it has been successfully completed at least three times. I think that this method encourages a valuable dynamic and many good lessons for everyone. It also builds the group morale when they understand that until everyone knows every job the group is in a high-risk zone. For example, if the only stove starter becomes incapacitated the group is out of luck for cooking! Not good.

Transferring this lesson is easy. Life is an expedition. The route to the end is filled with mountains and valleys, rivers, good days and bad. There are opportunities and barriers. Persistence gets you far.

WE CALL THIS ABILITIES AND LIMITATIONS!

Focus is essential to a successful completion of our life journey. Holding the focus is the challenge. It is your focus. Have you ever stared at a lit candle with your index finger trying to block out the flame? Try it. Stare at your finger. Move it side to side and you might even see two flames. Now keeping your finger where it is refocus on the flame- wow! Your finger disappears. The lesson is that each of us can eliminate the blocks that hinder our progress if we focus past them.

Several years ago we tried a cross-cultural course. As the leader team sat and planned the first 72 hours, each person voiced the concern about language as a barrier to success. Finally, I simply said that it would not be a barrier. We would use different ways to communicate if necessary but language would not be the issue on the course. Ultimately, it became a truth for us, as leaders, and for the participants.

Additionally, it takes courage to do simple things when life is not simple. You can think of this as an act of random kindness perhaps. A smile, a word of encouragement, believing in someone who makes it hard to believe in him/her is challenging. So if we have skills-technical or interpersonal - let's teach those skills to someone else and give it away.

WE CALL THIS TRIP PLANNING AND LEADER DEVELOPMENT

Learn to have fun. Life is an experiment - - try new things and see if they work. Make some stuff up. When the group was struggling, I used to send couples out on elk dates. The students were to go off in mid afternoon, find a good hiding place and wait for the elk to come by for water. In the meantime, everyone got to know another and usually felt better after the “date”.

We have hosted outdoor leader Olympics - use your imagination!

WE CALL THIS FUN AND ENJOYMENT!

EVERYONE NEEDS A TEAM!
Paul, Sandy Braun, Kent Clement, Steve Young, Maurice Phipps, Buck Tilton, Mark Wagstaff, Karen Boldis, Scott Jordan, Mick Daniel, Aya Hayashi, Aiko Yoshino have taught me as instructors. Every student has been my team.
You can’t be successful in anything without teammates. I am grateful to have had such a strong team helping me become better at my craft. We have laughed, cried, been scared, celebrated and have experience some amazing moments together. I am a lucky girl indeed. Finally, other lessons learned and applied to my life as a WEA instructor are to be AWARE, develop and foster effective COMMUNICATION, be as SELFLESS as you can, express GRATITUDE often and loudly and of course CELEBRATE. Tonight is my celebration and the honor to talk to all of you humbles me. I want you all to come and look at this beautiful prize and share in my moment. I am indeed lucky to have enjoyed a long and wonderful tenure as an outdoor leader.

Now that I have self-retired from the field (you can read my article in the fall issue of The Journal) I can enjoy the outdoors in new ways. I look around and see many students that I have taught and know that the future is in good hands. Having students exceed your abilities is perhaps the greatest joy a teacher can have. To know that you spent some time on the same path with another person and they have extended your reach - brings pride beyond comprehension. Good luck to all of you and thank you again. I am indeed grateful.

Basics of Caving

Nate Clark
Radford University

Abstract

The purpose of this presentation was to serve as an introduction to caves, cave life and formations, and caving in general. Information is presented regarding the formation of caves, cave formations and life, leadership, environments, equipment, trip itineraries, group sizes, and the basics of developing a caving program. This presentation was targeted towards individuals with little or no previous knowledge of caves. The information was informative, yet very basic so as not to overwhelm the novice. It offered a general understanding of caves and caving, but should not be solely relied upon as a definitive caving instructional text. Those who wish to begin caving should consult several sources and seek out professional instruction prior to entering a cave environment.

Key Word: caving, caves, cave environments, cave program

Introduction

To the novice, the idea of plunging deep underground and into the realm of total darkness can be quite a scary thought. Fear of the unknown or even the known but misunderstood, can cause people to go screaming in the opposite direction when faced with the cool breeze blowing from the mouth of a cave. Caves have received a bad reputation as homes for monsters and bottomless pits, but this misinterpretation is far from the truth. When properly explained and respected, caves are a natural wonder that can be filled with beauty and adventure. Like any environment, there are dangers, but if properly prepared for, and understood, caves have a lot to offer in both recreational and educational settings.

This presentation was designed to offer introductory information for those with little or no knowledge about caves, cave life and formations, and caving as an activity. It was aimed at a novice audience with an interest in caving as a personal or program trip. Although informative, it was not designed to be a definitive instructional course. Those who wish to explore caving should attain professional assistance as well as further informative and instructional material to complement the information presented here prior to beginning a caving experience.

Formation of Caves

There are many types of caves found all over the world. These caves are all created slightly different, depending on the surrounding environment, atmosphere and climate. To maintain a certain amount of simplicity and keep along the lines of beginner knowledge, the focus of this paper will be placed mainly on solution caves, which include limestone, dolomite, marble, and gypsum. Solution caves are formed by erosion and chemical

dissolution. These caves are the most prevalent and commonly found almost anywhere in the world. However, it is important to note that caves can also be formed in sandstone, ice, lava and a variety of other materials, being created by wind, melt, chemical break down, and a wide array of other processes.

The majority of the caves found in the United States, and the rest of the world, are solution caves (Geology of caves, 2004). These caves can take hundreds of thousands of years to form and are created through erosion and chemical dissolution. The process depends on the movement of water. The two main sources of limestone cave creation are underground water tables and falling precipitation. As limestone is an organic material, it is broken down and dissolved by mild acidity in water. As rain water or and other precipitation falls it collects carbon dioxide while passing though the atmosphere and organic matter in the soil above the limestone bedrock, creating a weak carbonic acid. When this water reaches the limestone below, it reacts with the calcium carbonate limestone and slowly dissolves it. At the same time, underground water tables are flowing, continuing the process of dissolving limestone as they pass through cracks and hollows. This causes theses voids to increase in size, eventually creating passages, rooms, pits and a multitude of other cave characteristics.

Cave Formations

Although the flow of water is primarily responsible for the dissolution and creation of passages in caves, it is also responsible for the formation of many features found in caves. Some of these formations include soda straws, stalactites, stalagmites, flowstone, rim stone dams and a multitude of other formations. This is due the presence of other trace minerals found in the water solution, the most prevalent being calcite. As water passes over the surface of existing cave features, it deposits this calcite and other minerals (Pisarowicz, 2005). This process may take hundreds of thousands, maybe even millions of years, but eventually the deposits will become the formations often found in caves. Here is a brief description of some of the most common formations found in limestone caves (Chadick, n.d.):

Soda straws are small hollow tube-like structures which hang from the ceiling, resembling a small plastic straw, hence the name. They are formed by water dripping from the ceiling of a passage. As the water drop flows, calcite is deposited around the edges of the drop. As water continues to flow through the center of the forming straw, it deposits more calcite around the rim of the straw as it falls, continuing the growth process. These soda straws can range from a few fractions of an inch to several feet.

Stalactites are the next life stage of soda straws. They are formed when either a deposit or impurity of some kind clogs the center hole of a soda straw. When the straw clogs, the water must now flow around and down the outside of the straw. As it does this, it begins to deposit calcite on the surface, creating a conical shape, like that of a road cone, stuck to the ceiling. This formation is called a stalactite.

Stalagmites look the same as a stalactite, however they are found on the cave floor, growing upwards. Stalagmites are formed by water dripping from the ceiling. As the water continues to drip in the same place, it deposits more calcite, which over time grows into a

large pointed cone, again resembling a road cone. Stalagmites are often directly under stalactites, formed by the water dripping from the stalactite. A good remember the difference between the two is that stalac*tites* stick *tight* to the ceiling, and stalag*mites* just *might* grow to touch the ceiling.

Columns are the formations that result when a stalactite and stalagmite meet, connecting, and creating a solid pillar that extends from the ceiling to the floor.

Rim stone dams are formations that are created by water flowing from a standing pool, over a ridge or lip. A good analogy would be an overflowing bathtub or sink. The process begins by water collecting in a puddle or pool. As the water overflows its containment, it deposits calcite along the rim of the pool. As long as the water keeps overflowing, the rim stone dam will continue to grow. These dams may be fractions of an inch to several feet in height.

Cave Life

Although often beautiful and amazing to see, cave formations are not the only things found in caves. Another key thing to note when learning about caves is cave life. Although caves may seem like an uninhabitable environment, there are several forms of cave life that may be found. The classifications of cave life can be further broken down into three categories: Troglobites, troglophiles, and troglozenes (Cave Critters, n.d.). Where a certain creature fits into this scale depends on its characteristics. They are as follows:

Troglobites are creatures that have evolved in such a way that they are only found in caves. They have often undergone certain mutations such as loss of pigment, sight or even eyes all together. Examples of troglobites would be cavefish (ghost white with no eyes) and cave crawfish (again, no pigment, extended feelers, and little to no vision).

Troglophiles are creatures that have adapted to life in caves and prefer to live in them, but do not necessarily spend their entire life within the confines of a cave. Some examples of troglophiles are bats, cave crickets and some salamanders.

Troglozenes are creatures that are not naturally found in caves. They are “visitors” to caves, with no adaptations, and could probably not survive within the confines of a cave for long periods. The best example of a troglozene would be humans who visit caves as cavers.

Along with a basic understanding of cave formations and life, there are other aspects of caves of which one should be knowledgeable. One of these is the cave environment. Once again, it is important to realize that cave environments are going to vary, depending on the type of cave and its location. This section will deal primarily with limestone cave environments in moderate climates.

Cave Leadership

The next section details information that can be used for leading groups in cave environments. This section covers general cave environments, caving equipment and group dynamics. Again, this is intended to be an introduction, not an instructional course. Those seeking to lead caving trips should accompany this information with extensive research and professionally guided experience and instruction.

Cave Environment

The first aspect of cave environments that varies from natural outdoor settings is the temperature. Unlike most seasonal climates that change temperature drastically throughout the year, the temperature inside caves stays relatively stable year round. Caves tend to take on the average annual temperature of the surrounding area. For example, a cave in an area that has a summer temperature of 95 degrees Fahrenheit in the summer and 15 degrees Fahrenheit in the winter would maintain a temperature of about 55 degrees Fahrenheit year round. This should be taken into account when planning a caving trip to ensure that all members of a group are dressed appropriately.

Another aspect to consider is the relative humidity of a cave. This, once again will depend on the type of cave, and location, but for the majority of limestone caves, the relative humidity within the cave will be close to 100 percent. The significance of this is tied to its affect on decomposition of matter in the cave, which taken back one more step ties into Leave No Trace Caving. Due the high humidity, many types of organic waste or matter will mold, but remain in the cave for extended periods due to the sheltered environment. This is important when considering Leave No Trace caving because it creates a strong need for care and proper removal of waste from a cave. More about Leave No Trace caving can be found on the LNT website (lnt.org, 2006).

The surroundings found inside a cave are also very important to consider when planning a caving trip. Inside a cave, elements that may not usually pose too much of a problem can become much more serious when combined with lack of light. Although there are limestone caves that are considered “dry”, the majority of the time cavers will encounter a lot of mud, and even standing water. This not only makes things very slippery, but also can contribute to hypothermic conditions when combined with cooler temperatures. This also creates a high possibility of slipping or tripping on the numerous boulders and rock scramble often found in caves.

Aside from the cold, water, mud and rocks there are also cave formations hazards. Formations, although often beautiful, can create quite a hazard. Not only is it important to be careful not to disturb or break formations, but it is also important to not get injured by hanging stalactite, tripping over stalagmites, or even getting cut or scraped by sharp formation. These are just some of the dangers that can be posed by formation and cave surroundings. When leading groups, it is important to have guides that are knowledgeable of the particular cave being explored and the specific hazards of that cave.

Caving Equipment

As with any outdoor pursuit, different equipment will be needed for different environments. Caving is the same way. The type of cave you are in and its location will dictate the equipment needed. However, even though specific caves will require specific equipment, the following is a list of equipment needed for any caving trip:

*Helmet*s are important because of the high risk of injury to the head from hanging formations, over handing rocks, crawl ways, etc. There are two features needed for every caving helmet. First, it must have a chinstrap or strap of some nature that prevents the helmet from falling off. Second, the helmet must have the ability to accommodate a headlamp. Hand-held light sources are not acceptable as a primary light source. Therefore, helmets must have the ability to hold a light source to provide the caver with hands-free illumination.

Light source(s) - when caving, it is important to have a least three independent light sources. This includes a primary light source, which will be attached to the helmet, and two back up light sources for emergency use. All three of these light sources should have their own methods of power (no sharing batteries).

Proper clothing will vary depending on the cave, however the use of layering and synthetic materials is crucial, similar to other outdoor pursuits. Proper clothing also includes footwear, which should be sturdy, lug-sole boots of some kind that are preferably waterproof. Layered wool socks are highly recommended to maintain warmth of feet while exposed to cold water for long periods.

Emergency medical kit should be a Wilderness First Responder kit or equivalent. It should include equipment to care for an injured caver for extended periods. A heat source, food and other necessities, as well as means to deal with hypothermia, along with standard medical kit equipment should be carried.

Water should be carried by all members of the group, enough for the duration of the trip.

Waste should be packed out in accordance with Leave No Trace Caving. It is imperative to pack out all waste. Unlike many outdoor environments, human waste cannot be buried in a cave, and must be packed out.

Knee pads, although not required, are greatly appreciated. While caving, a lot of time is spent crawling over hard, sharp rocks, which can be very hard on knees.

Trip Itinerary

Before setting out on any caving adventure, it is important to create a proper itinerary. This includes where you are going, how to get there, when you expect to get there, the name of the cave you will be in, the amount of time you anticipate spending in the cave, a route in the cave (if possible) and your anticipated return. This itinerary should also include contact phone numbers and directions to the nearest medical facility, search and rescue, state/national park headquarters, and any other contacts that may be needed in the event of an emergency.

Two copies of this information should be made. One should be taken with you and another should be left at home with a reliable contact person. This is someone who is aware of your intentions and knows what to do in case of an emergency. Prior to setting out on your caving experience you should set a time by which you will call your contact when you get out of the cave. It is very important to stick to this time, so that your contact does not initiate an unneeded emergency search and rescue. This is a very serious matter.

Also, before entering any cave, you should be knowledgeable of the local weather and cave conditions. Many caves have underground waterways flowing through them. In the event of heavy rainfall, these waterways may flood and can become extremely dangerous. It is also important to know any other hazards you may face in the cave.

Group Size

The National Speleological Society has set forth certain guidelines regarding group sizes when caving. They recommend that caving groups consist of four to six and no less than four people. Groups larger than six can become hard to manage, will create a lot of unneeded noise, and increase the likelihood of impacting the cave. However, it is important to have at least four people in case of an emergency. At least two of the four should be experienced cavers. This way, if someone were to be injured inside the cave, one experienced caver can remain with the injured and the other experienced caver can hike out as a pair with the remaining individual. This ensures that people are always in groups and not alone in the cave (Jones and anonymous, 2003).

Developing a Caving Program

When setting up a caving program there are a few key steps that you must complete. The first thing is to ascertain the location of the caves that you are planning to utilize. Once you have this information, it is imperative that you find out who the landowner of the cave is and build a positive relationship with that individual. The landowner is the person who must grant you permission to use the cave, and has the power to prevent you from using it. If the cave is located on public land, permission to use it is not usually as hard, but you must contact the appropriate land agency.

Once you have attained permission to use the cave, you must scout the local caves and see just what you are dealing with. The best way to do this is to have people who are already familiar with the cave take you in and show you around a few times until you have your bearings.

The next step is to set up a training program for program trip leaders. This is used to get trip leaders familiar with the cave so that they can safely lead groups through it. This will involve becoming knowledgeable with all areas of the cave, as well as any technical skills that may be needed. In some instances, rope work will be needed for vertical caving. This however can be very dangerous and should only be done by those who have the proper skill set of technical rope work as well as cave leading skills.

Finally, similar to the trip itinerary for personal caving trips, it is important to get all emergency contact information for the appropriate authorities. You should speak with these authorities and inform them of your intentions of beginning a caving program. This will help you maintain a good relationship with them, and is one more precautionary measure to be taken. Once you have all this information, make sure it is all correct and keep it on file, so that leaders who will be taking groups to these cave locations will already have the emergency information they need. It is also a good idea to periodically check this information to ensure that it is still correct and has not changed.

Conclusion

The information given here is meant to be a very basic beginner's guide to caves and caving, and by no means a definitive source of caving information. Although it offers general tips and knowledge, it should not be solely relied upon for preparation of cavers, or the starting of a caving program. There are many sources that can be used to expand upon this information. One of these is the National Speleological Society. The NSS website contains a wealth of information on caves, including a national listing of cave grottos, which may be contacted to gather more information about local caves in your area (National Speleological Society, 2004). The NSS can also direct you to other resources for gathering caving information. Remember: plan ahead, be prepared, and have fun!

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The Life Significance of the Wilderness Solo & Strategies for Intentional Solo Design

Brad Daniel, Montreat College
Andrew J. Bobilya, Montreat College
Kenneth R. Kalisch, Wheaton College: HoneyRock

Abstract

This paper examines the wilderness Solo experience and the educational use of intentional solitude. It discusses two studies and portions of their findings dealing with these topics. First, the paper describes the results of Daniel's (2003) retrospective study on the life significance of an Outward Bound-type wilderness expedition for college students. The most important trip component, according to participants, was the Solo experience. Second, it presents the results of an ongoing four-year investigation of the Solo with an 18-day wilderness program for college students (Bobilya, 2004). Bobilya and Kalisch have been conducting research aimed at better understanding the participant's perception of their Solo and the influence of intentional design on the part of the instructors (Bobilya & Kalisch, 2006). The end result is an ongoing dialogue regarding the development of best practices for designing and implementing wilderness Solo experiences.

With respect to this research presentation, the 2006 Wilderness Education Association Conference participants were asked to consider one unifying question: "What role could intentional solitude play in a WEA course?" Although Solo is not included directly in the 18-point WEA curriculum, solitude can play an important role in the development of judgment and decision-making through intentional time for individual reflection. Thus, the flexibility in the WEA course structure provides opportunity for intentional solitude to complement the WEA curriculum and enhance outdoor leader development.

Keywords: Wilderness Experience Program, Wilderness Solo, Intentional Solitude, Outward Bound-type Program, Significant Life Experience, Christian Wilderness Programs

Introduction

"You cannot harvest the lessons of life except in aloneness and I go to the length of saying that neither the love of man nor the love of God can take deep root except in aloneness".
Kurt Hahn (cited in Miner, 1990, p.62).

The Solo often is regarded as one of the most influential components of a wilderness experience program (Daniel, 2003; McKenzie, 2003; Sibthorp, 2000). This paper is the culmination of three researchers' work related to the wilderness Solo experience and intentional solitude. The Solo experiences studied were Montreat College's Discovery Wilderness Program and Wheaton College's High Road wilderness program for incoming students. Both of these Christian-oriented wilderness programs consist of several components similar to a traditional Outward Bound course, including a Solo experience. Research on both

of these programs indicates that the Solo experience has played a unique and important role in the lives of participants (Bobilya, 2004; Daniel, 2003). This paper explores why this is so.

The paper will begin by defining a Solo experience and describing the wilderness programs at Montreat and Wheaton College. Then, it will discuss the two Solo-related studies and their results. The first was a study on the life significance of the Discovery program, Montreat College's wilderness expedition. The second was an exploratory study on the influence of intentional Solo design by the instructors on Wheaton College's 18-day High Road wilderness program for incoming college students.

Definitions

Solo has been defined in a variety of ways. Generally, Solo is any period of intentional solitude – an hour, day, or multiple days – that can be spent moving or stationary. Just as a short reflective walk in solitude can be considered a Solo experience, an hour sitting or a month hiking and camping also can fall into the solo category. In the context of the two studies discussed here, Solo was more clearly defined.

Specifically, Montreat College's Discovery program defines the Solo as a 2-4 day experience involving solitude. The Discovery Wilderness Manual suggests that the purposes of the Solo are as follows:

- "A time of fasting, reflection and rest.
- A time to look back over the trip to see what has been learned.
- A time to evaluate past and present relationships with Christ, family and friends." (p. 57)

Wheaton College's High Road wilderness program defines its Solo similarly. Solo is "[a] time when the students are intentionally separated from the group for 24-72 hours for the purpose of reflecting on their life, the lessons they have learned while traveling in the wilderness and their role in the small group with which they are traveling" (High Road Brochure, 2005, p. 2).

Description

The programs under study were the Discovery Wilderness Program at Montreat College in Montreat, NC, and the High Road for Incoming Freshmen and Transfers at HoneyRock, Wheaton College's Northwoods Campus. Each program and the research methodology is briefly discussed below.

Daniel (2003) Study of the Discovery Wilderness Program

Created in 1976, the Discovery program is a 20-day, Christian-oriented, Outward Bound-type wilderness expedition. It consists of several components, including icebreaker/initiatives, backpacking and camping, orienteering, climbing, canoeing, a group expedition without instructors, Solo, a service project, and a marathon.

Daniel (2003) conducted a 25-year retrospective study aimed at understanding the long-term value or "life significance" of the Discovery wilderness experience. The purpose was to learn what participants remembered about the trip, what they had learned during and as a result of the trip, and, finally, what role, if any, they believed that the trip had played in their lives. The study focused on identifying the life significance of two things – the expedition as a whole and the individual expedition components, such as Solo.

The research questions guiding this study were as follows: (1) What is the long-term value of a wilderness experience?; and (2) Is it significant over the course of one's life and, if so, why?

Drawing from relevant theories in education, psychology, theology, bio-physiology, and human development, Daniel (2003) identified a series of characteristics by which one may classify an event as having life significance. Significant life events often change one's perspective, behavior, attitude, or beliefs. These changes might be mental, physical, spiritual, emotional, social or some combination thereof. Significant life experiences often consist of new or extraordinary events in the life of the person, something that is outside the normal routine. They often provide future value to the participant. For example, an experience might serve as a reference point, a turning point in life, or a reservoir of life lessons that will be useful in later years. Experiences often are significant -- if they are believed to be caused intentionally by something other than by mere chance… by God, a guiding force, or a higher power. Finally, significant life experiences often are defined as such because they are characterized by an unusual or meaningful nature, a higher than normal magnitude, or the timing of the event itself (Daniel, 2003)**.**

Research participants included 227 out of the 446 individuals who took part in the Discovery program between 1976 and 2000. The primary methods used in the research were two pilot studies, the results of which were used to design a self-administered survey, and a follow-up interview with three focus groups. The survey was divided into three parts. The first part dealt with demographic information about the respondents. The demographic information regarding gender, age, etc., allowed for sorting the data according to the specific characteristics and to look for differences in how different sub-groups answered the questions. The other two parts of the survey asked questions about the significance of the experience as a whole (Part Two) and the significance of the individual components (Part Three). In Part Three, respondents were asked to rate each trip component on a 7 point Likert-type scale from 1 (not important) to 7 (very important). Part Three also instructed them to comment on why they rated the components as they did.

Bobilya & Kalisch (2005) Study of the High Road Wilderness Program

Wheaton College's High Road is a wilderness experience program offered for first-year Wheaton College students and is modeled after a classic Outward Bound wilderness course. The 2005 High Road program was an 18-day program with 12 days spent traveling in the wilderness. High Road uses small group expeditions through the wilderness setting to assist students in their preparation for college. Each expedition group participated in a 24-48 hour Solo experience as a component of the program. High Road may include the following

components: backpacking, rock climbing, a service project, canoeing, Solo, and a final challenge.

Bobilya and Kalisch have been conducting a multiple-year research study on the Solo experience. A 2002 pilot study laid the foundation for Bobilya's (2004) dissertation study, which utilized pre- and post-solo surveys and focus group interviews. Most recently, they investigated the influence of intentional design by the instructors on the participants' perception of their Solo experience. They used pre- and post-solo surveys to look at the purpose and framing of Solo, the instructor visits during Solo, and the procedures for individual and group debriefing. This seminar focused on presenting the results from the most recent 2005 data.

This study used primarily qualitative methods for exploring the influence of intentional program design on participants' Solo experience. Demographic and other background data were collected and analyzed through quantitative-based survey methods. Participants included both first-year students who voluntarily enrolled in the High Road wilderness program through Wheaton College in August 2005 and who agreed to participate in the study and the High Road field instructors. There were 91 total program participants of who 85 agreed to participate in the study and 21 field instructors who all agreed to participate.

The study involved three phases of data collection: (a) Phase 1: Instructor Pre-Solo Worksheet, (b) Phase 2: Participant Solo Questionnaire, and (c) Phase 3: Instructor Post-Solo Questionnaire. The first phase of the study provided instructors with a worksheet designed to assist in their intentional programming of the Solo. This worksheet was completed prior to the beginning of the High Road program. Phase 2 of the study captured the participants' perception of their Solo experience while still alone in the wilderness and prior to returning to their expedition group. On the final day of their Solo, prior to returning to their group, the instructors asked the students to complete the written Solo questionnaire. This questionnaire allowed the students the opportunity to reflect on their experience without being influenced by the responses of their peers in the expedition group. Questions asked during Phase 2 included: Please provide specific advice for instructors regarding preparation for the Solo, visit during the Solo, and debriefing after the Solo. The third phase of the study focused on the actual implementation of the Solo from the instructors' perspective. Phase 3 questions included: (a) What was the purpose of your Solo? (b) How did you facilitate students sharing expectations and goals for their Solo? (c) Please describe what you would change in preparing your students for their Solo. All phases of data collection were completed on August 18, 2005.

Outcomes of the Studies

The Discovery study had several findings directly related to the Solo. First, Solo emerged clearly as the most important expedition component by over a two-to-one margin. Thirty-seven percent of the participants of the two pilot studies stated that the Solo was the most significant trip component. In the main study, 39% - of the participants (38% of all males, 39% of all females) stated that solo was the most significant trip experience. Solo was the only component deemed most important by at least one respondent from each of the 25 years in the study. Solo's role was described as significant in every focus group interview.

Finally, Solo averaged 6.20 on the 7-point Likert-type scale used to rate the significance of the trip components with seven representing "very important."

The study of the Discovery Wilderness Program indicates that Solo was significant for many participants over the course of their lives for the following reasons:

- Solo provided a new, unique, and/or extraordinary experience for most participants compared to other life experiences.
- Solo occurred in beautiful, natural, and inspirational settings.
- Solo offered mental, physical, emotional, and spiritual challenges.
- Solo allowed opportunity for reflection, introspection, and contemplation in solitude and silence.
- Solo offered a different perspective.
- Solo provided a reference point as well as one or more life lessons.
- Solo intensified examination of self in relation to environment, others, and God.
- Solo encouraged spiritual growth through prayer, meditation, and reading scripture.

Although some experiences are considered more significant when they occur than when viewed in retrospect, Solo's novelty made it particularly memorable. Novel events share several characteristics. Neisser has written, "They are perceived as strongly emotional at the time. Life's subsequent course must make the target event focal in recall. The event must be seen as a turning point, instrumental in later activities. The event must remain relatively unique, its image must not be blurred by subsequent occurrences of similar events" (1982, p. 89).

Part of what makes Solo so special is its timing. Solo generally occurs in the expedition sequence at a time when psychological defenses have been broken down by a cumulative fatigue from meeting physical and emotional challenges. It usually occurs near the point in the course where the group has traveled for one or two days without the instructors. When the participants arrive at their appointed Solo destination, they may be exhausted, hungry, and, sometimes, frustrated with one another. As a result, participants must transition quickly from a time of intense social interaction to a time of isolation, reflection, and fasting. The contrast between these two states is dramatic and creates a dynamic tension that requires resolution. The more unknown, or unpredictable, or unfamiliar the experience -- the harder people work to make sense of what is happening to them (Luckner & Nadler, 1997).

Participants related spiritual growth to Solo more than any other trip component, including the daily devotions and Bible studies. Spiritual growth was described as an increased faith and trust in God. Respondents stated that solitude, prayer, meditation, fasting, scripture, journaling, and reflection time enhanced spiritual awareness and made them feel closer to God. As one participant stated,
"Solo made my spirit quiet. And I found that God really was interested in my smallest details."

The significance of Solo is attributed to several key elements:

1. The ***perspective*** that it afforded occurred because participants drew parallels between the wilderness journey, their life journeys, and their spiritual journeys.
2. ***Solitude*** provided participants a chance to face their fears.
3. Solo offered a time of ***simplicity*** during which life was reduced to the basics – no busy schedules, deadlines, or interruptions.
4. ***Decision-making*** also was a key element in Solo because participants were forced to be self-reliant and were allowed time for making personal and professional decisions.
5. Finally, three key elements of Solo were ***reflection, meditation, and prayer***. Solo provided time to process the Discovery experience that had occurred before the Solo and to digest the meaning of that experience. It also served as an incubator for ideas related and unrelated to the expedition. It often led to increased self-insight and awareness and, finally, enabled a closer relationship with God and Creation.

Solo emerged clearly as the most memorable and significant trip component in Daniel's (2003) study of the Discovery program. This finding highlights the need for careful consideration in the design of the Solo experience. Bobilya and Kalisch sought to address those questions in their recent study. The first phase investigated the participants' perceptions of their Solo experience. Findings indicated that participants experienced several outcomes while on Solo. They are as follows:

- Self-awareness through solitude and journaling
- Attunement to self, others, God, and nature
- Recognition and appreciation of important personal relationships
- Future goal setting
- Spiritual development through solitude, reading, prayer, and journaling
- Increased comfort with one's self in the absence of others
- Reorganization of priorities in life
- Appreciation for solitude, silence, and reflection
- Transferable lessons from the wilderness to life after the expedition.

The role of the instructor emerged as an important factor in the Solo experience. For some, the instructor visits during Solo enhanced their experience while others noted that the timing of the visits, the amount of visits, and the resulting lack of autonomy distracted from the Solo experience. Instructor recommendations for enhancing Solo included taking additional time to frame the Solo, clarifying instructor and student expectations, offering clear rational for Solo and all major activities, and providing prior readings on solitude, silence, and wilderness philosophy.

Consistency in Findings Across Both Studies

There were several areas of consistency between the outcomes of the studies reviewed in this paper. For example, in the High Road study, Solo was valued as a contrasting experience, one characterized by solitude and a lack of schedule. This was similar to the "perspective" finding in the Discovery study. Two of the most significant areas of consistency deserve to be discussed in greater detail.

Reflection

Both studies found that reflection time was a crucial component of the Solo experience. Discovery respondents ranked reflection time as 6.10 on a 7-point, Likert-type scale with seven representing "very important." As one Discovery participant stated, *"The daily quiet/reflection time and chance to journal about my understanding of God and myself were unique to this experience and I know it provided me with the opportunity to grow spiritually."* Reflection time also was the component most commonly described as *"what we wish we had had more of."*

During the 2005 High Road course, 90% of the students reported feeling primarily at peace during Solo and it was a time for reflection for many. Respondents reported the significance of reading Scripture and other works, spending time in prayer, and journaling as contributing toward their sense of peace while on Solo. Their experiences during that time are indicated by their responses below.

Scripture and other readings: *"I was reading through the Psalms and I could just really hear God speaking to me through them, telling me to wait and trust and just enjoy the time he had given me, rather than worry about what to do next with my time, what was next on the trip, or what freshmen year would bring."*

Prayer: *"My mind was peaceful, I felt fulfilled and enjoyed myself, I spend most of my solo time praying; or prayerfully working through things, such as why I was going to Wheaton, what I was expecting there, and what my priorities and values were."*

Journaling: *"… journaling helped give me a peace and assurance."*

Role of the Wilderness Setting

The role of the wilderness setting stood out as an important part of the Solo experience in both studies even though the physical environments varied greatly from one another. Discovery participants experienced Solo in mountain settings and often were placed beside streams. High Road program participants usually experienced Solo on the shore of a large lake.

In the Discovery study, respondents stated that the wilderness setting provided the following: a) opportunities for solitude and reflection; b) new experiences that tried their patience and tested their nerves; c) understanding, experiencing, and/or interacting with God in new and powerful ways; and d) renewal, inspiration, purification, trial, and testing. The wilderness setting served as one of the most significant aspects on the trip for 11% of the survey respondents and was considered important in all three focus group studies. In fact, the largest sub-group of respondents (65 or 31%) stated that various features of the natural environment were a tremendous source of spiritual inspiration. Three aspects of the wilderness setting were mentioned most frequently. These were a) the beauty of the places, b) the perspective afforded by being on mountain peaks, and c) the power exhibited by natural elements (e.g., raging rivers, thunderstorms). In a Christian context, the wilderness setting provided a place for participants to experience "God's grace through trials and God's glory through creation" (Garrison, 1995, p. 3).

The High Road course Solo respondents discussed the importance of the grandeur of nature. Specifically, they wrote about the grandeur, remoteness, distractions, and contrasting setting in which they spent their Solo time. They reported their heightened attunement to natural surroundings as well as the calming effect of the lake water both of which are reflected in respondents' statements below.

Increased Attunement to Natural Surroundings: *"[I] enjoyed just sitting and watching the changes in environment – the butterflies and waves, the sun, moon, and stars, the clouds, the seagulls…"*

Calming Effect of Lake Water: *"Being near the water with the sound of its gentle waves, provided a sense of calm."*

Both studies noted the need for more research into the impact of specific settings on the participant's Solo experience.

Concluding Thoughts

The wilderness Solo has the potential to be a significant life experience because it has the power to shape participants' lives both while in the wilderness and years later. Therefore, the design of Solo should be given careful consideration in program planning, facilitation, and debriefing. Since both programs studied were at Christian colleges it is likely that the ways in which the experiences were framed and front-loaded influenced how some aspects of the Solo experiences were interpreted. Both studies acknowledged the possibility of these framing effects. More research is needed with dissimilar programs to test the broader validity of these results.

The potential value of Solo and intentional solitude extends far beyond the wilderness expedition. One can maximize the impact of Solo experiences by incorporating intentional solitude as a way of life and by encouraging time for solitude and accompanying reflection. Furthermore, given the emphasis in the WEA curriculum on reflection in the development of judgment, decision making and leadership skills; the authors challenge all instructors to consider the ways in which intentional solitude or Solos can enhance their program design. If we are truly interested in developing effective outdoor leaders, then it behooves us to give careful consideration to one of the most significant program components of many wilderness experience programs – the Solo.

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Designing a WEA Course Using Collaboration

Marni Goldenberg
California Polytechnic State University, San Luis Obispo

Panel Members:
Jim Lustig, San Diego State University
Andy Ballard, Indiana University
Cheryl Teeters, Northern Michigan University
Rich Obenschain, Gordon College
Jeff Tindall, Western Illinois University
James Retzlaff, Northern Michigan University

Abstract

This panel discussion explored the successes and struggles of running a WEA course through collaboration. The panel shared their stories and provided suggestions for ways to create a WEA experience for their clients/students by working with another affiliate. Six individuals who had collaborated in various ways sat on this panel. Collaboration included working together to run a course, using resources from another school, or even going to locations that were used by another school/affiliate.

Keywords: Collaboration, panel discussion, WEA courses

Designing a WEA Course Using Collaboration

During this presentation, the panel talked about their specific courses and how they have worked with another affiliate to offer a WEA experience. The panel provided specific ideas on collaboration and gave suggestions. The audience was able to ask questions related to the collaboration experience. The panel included: Jim Lustig, San Diego State University, Andy Ballard, Indiana University, Cheryl Teeters, Northern Michigan University, Rich Obenschain, Gordon College, Jeff Tindall, Western Illinois University, and James Retzlaff, Northern Michigan University.

The questions that were answered in the presentation included: How did you collaborate? How did this first get initiated? What worked and what did not work with the collaboration? And what suggestions do you have for future collaboration? Panel members were given the opportunity to respond to these questions. This paper will include responses from some of the panel members.

Jim Lustig, San Diego State University

How did you collaborate? Our affiliate has been collaborating for many years with other WEA Affiliates, whether it is sharing instructors and "course know-how", offering course area logistics and support, or completely outfitting courses. One of the best things to

come from this has been improvement in our courses as we have learned so much from others and feel strongly that we have reciprocated.

How did this first get initiated? I am not really sure, but it really took off once we offered a few Professional Short Courses where other WEA instructors could see and experience what we had to offer in the way of course locations, outfitting, logistics, safety management and instructors. Soon after, many affiliates approached us not only to offer WEA sanctioned courses, but purely recreational trips for their students. Word of mouth has been tremendous and it has been very personally rewarding to develop close friendships as well as spend time in the field learning from so many great WEA professionals. In addition, I think we set ourselves up well from the very start of our affiliation in the fact that we recruited students for our courses from all over the country because we were not confident, year-to-year, that we could generate enough interest amongst our own students. Again, word of mouth from students may be equal or better than that of professionals.

What worked and what did not work with the collaboration? What I have found to work best is clear lines of communication and full partnership with course planning every step of the way. Otherwise, students and instructors start the course being confused as to primary goals and division of leadership responsibilities. By far our best and ongoing collaborative efforts have been supporting Western Illinois University's ECOEE semester for 10-17 days in Baja California and a 21+ day NSP course for Gordon College (Massachusetts). Other affiliates we have served in various capacities over the years have been: Southern Illinois, Ithaca College, Oklahoma State, Indiana Univ., CSU-Chico, Cal Poly-SLO, and Lifespan Counseling. Lastly, I almost forgot to mention that our most important and valued collaboration is with Expediciones de Turism Ecologico y Aventura of Ensenada, Baja California, Mexico. Francisco Detrell is the owner of this company and a WEA Instructor. He and I have been working closely together for over ten years providing all kinds of fantastic adventures in Baja California and without his expertise, friendship and commitment our SDSU affiliate would not have enjoyed many years of great success.

What suggestions do you have for future collaboration? I would welcome the opportunity to create more collaboration between affiliates. For example, my students very much need experiences outside of Southern & Baja California -- such as whitewater paddling, vertical and horizontal caving, technical mountaineering, cold water sea kayaking, canoeing on big water with portages, and even the opportunity to camp in the "woods" where they can legally collect wood and cook all their meals over a fire (most have never done this!). And I would imagine that many other affiliates would love to bring their students to a warm weather climate for desert travel, rock climbing, surfing, canyon backpacking and sea kayaking. Did I mention that the Sierra Nevada is a wonderful place to backpack in the summer?

Andy Ballard, Indiana University

How did you collaborate? IU and NMU ran a combined WEA Steward course from Dec. 28, 2005-Jan. 8, 2006 in Agawa Canyon, Ontario, Canada. NMU had eight participants, and IU brought six participants and two instructors. Essentially, by sharing resources such as equipment, instructors, and regionally specific knowledge, the two sponsoring affiliates were able to run a very successful program.

How did this first get initiated? James Retzlaff, an NMU undergraduate student, attended an IU sponsored WEA NSP in Yellowstone during the summer of 2005. During that time, James and I had several conversations about the abundance of ice climbing areas and winter camping conditions available in and near Northern Michigan. James, an experienced ice climbing guide in the area, offered to apprentice a WEA Steward course in the area any time IU was interested. IU was indeed interested, and the rest is history. Cheryl Teeters provided a wealth of experience for the collaboration and helped keep logistics running smooth.

What worked and what did not work with the collaboration? Things that worked: sharing of resources and cross pollination of academic knowledge. Things that did not work: scouting of the area was an issue due to Instructors coming from far away and the level of academic outcome expected differed between the two affiliates.

What suggestions do you have for future collaboration? Have a great sense of humor and plan an "Instructor Only" pre-trip outing to discover any strange nuances in teaching habits.

Jeff Tindall, Western Illinois University

How did you collaborate? Collaboration for the Environmental, Conservation and Outdoor Education Expedition (ECOEE) at Western Illinois University begins with a need. As the ECOEE coordinator, I am unable to expertly lead in all modes of travel or environments in which the ECOEE students may want to become proficient. Hauling gear all around the country for the different modes of travel for a semester is prohibitive. ECOEE began to look for programs and people that could at least provide gear and some special expertise in various areas. We first looked within the Wilderness Education Association and then looked into network connections of various students and instructors.

ECOEE has had the good fortune to work with Jim Lustig and Aztec Adventures to fulfill part of the NSP requirements in Baja on two occasions. Each time has been a bit different in need and outcome. Other collaborative experiences that ECOEE has been engaged in are service projects providing support staff for Summit Adventure, service projects with Joshua Tree National Park in lieu of park fees, rafting the lower third of the Grand Canyon with United Christian Youth Camp, and a back country Wilderness First Responder with WEA Instructor Nadia Kimmel of Desert Mountain Medicine.

How did the collaboration first get initiated? Collaboration first came from a need for equipment and expertise. ECOEE and Western Illinois University have the equipment to field most program types. The instructors have expertise in a variety of skills and environments. Moving into new or more advanced areas with a group often call for greater expertise than "jacks-of-all-trades" can manage. Transporting gear from the mid-west to Baja is cost prohibitive. Maintaining gear and certifications for occasional usage is also cost and time prohibitive. Some of the activities ECOEE engages in could be done elsewhere to the same effect, but without the "Las Vegas Juice" that is needed for certain locations.

Having a network of outdoor leaders and programs to draw upon is essential for

beginning collaboration. Having WEA instructors with expertise and equipment that also have the WEA philosophy and training can create a cohesive experience for students gaining proficiency in different modes of travel and environments. A well-planned collaboration can provide lead instructors on a semester program a well-earned break and insight into what is happening with their group through an outside perspective.

What worked and did not work with the collaboration? Most of ECOEE's collaborations have worked well. Working through a university, ECOEE has learned to look at collaborations as a type of sub-contracting. Having someone familiar with the area and course to take care of logistics is a great relief. Most collaboration has been with folks that do courses in the area regularly. They understand the logistics and risk management plans. ECOEE hasn't had to re-invent the wheel by working with other programs.

Working with others gives students the opportunity to see how other programs and leadership operate. Students get to see different leadership styles in instructors. They benefit from the extra experience and expertise of the new instructors.

Group dynamics can be muddled for a while as students adapt to new styles and procedures. It is not always the most fun situation but has proven beneficial if processed well. Instructors must be adaptable and flexible and willing to "let go." Different instructional styles and procedures provide a living model of compromise and adaptability for student's to observe and learn.

What suggestions do you have for future collaboration? Communicate, communicate and communicate. Where there is a will there is a way. Be creative in exploring new ideas.

This panel provided insight and perspective on collaboration. A program can only become stronger by using resources and as the moderator of this panel, I highly encourage you to look into possible collaborations to make your program that much more successful.

Diversity: An obstacle or an opportunity?

Aya Hayashi
Jackson Wilson

Indiana University

Abstract

This presentation and documentation proposed a change in the paradigm of diversity in outdoor education and offers some tools to make diversity an educational opportunity rather than an obstacle. The authors believe that outdoor education is an ideal learning environment to explore using diversity as a tool to further educational outcomes. Some keys to making diversity an opportunity include creating positive group awareness, sharing universal values, engaging knowledge into action, and commitment. Achieving the potential benefits of diversity requires conscious leadership at all levels.

Keywords: diversity, outdoor education

Introduction

Imagine yourself on the latest course that you were an outdoor educator. Picture the diversity in that group. In what ways was your group was diverse (i.e. socioeconomically, culturally or gender). Now think of all of the times that this diversity was an issue for good or bad on your course. And even more importantly think of all of the times that it could have been an important educational tool, but was not brought into the conversation. The authors' have found; based on their field experience, conversations with other outdoor educators and a review of the literature; that diversity most often becomes overt in outdoor education when it is an obstacle to achieving educational outcomes rather than due to its utility for achieving outcomes. Moreover, due to this frequent perception of diversity as an obstacle rather than an opportunity, the issue of diversity is often avoided.

This leads to the authors' contention that diversity, while present in theoretically all outdoor education courses to one degree or another is an underutilized tool for achieving educational outcomes.

Diversity in Outdoor Education

About halfway through one of the author's courses his co-instructor and he were discussing one of their students. The student often spoke up when he was not in a formal meeting, but he did not speak at all during formal group meetings. The author probed him why he did not speak up in the group meetings. The student answered this question by describing the group meetings, the very ones that the author found to be stimulating, as contentious and rife with aggression. At that point the author had the opportunity to either see this difference in perception as an obstacle or see it as an opportunity. Admittedly, the author's knee-jerk reaction was to perceive this difference as an obstacle and he advised the

student, “Well kid, you need to get over your recalcitrance at joining the conversation.” However, upon reflection, the author took this difference as an opportunity and changed one of the evening circles to a format where everyone felt safe to share their thoughts about what a difference of opinion contextually means and what the costs and benefits of that difference is.

The old metaphor depicting U. S. society as a ‘melting pot’ is giving way to a new perspective of society as a ‘salad bowl,’ or a more idealistically symbolized ‘rainbow.’ This is a change away from the paradigm of assimilating all minority characteristics to fit those of the majority group (melting pot), towards a more tolerant paradigm of allowing differences in a society (salad bowl), and finally finding ways of celebrating diversity and the unique ways that multiple perspectives can contribute to bettering our society (rainbow). Although we don’t mean to imply that groups necessarily move through these steps in a linear fashion, it is the author’s belief that many groups go through these stages when building a diverse community.

In one of the author’s experience, she only felt that she had become a full member of the group after she recognized that her difference was benefiting the group. This recognition allowed a more positive interaction among group members and greater sense of responsibility. In order to go past simply recognizing individual differences (salad bowl stage) and reach a synergistic level of reaping the value of diversity (rainbow stage), groups often need to concentrate their efforts on interdependently working together. It is often up to the instructors and groups whether they deal with situations involving diversity as melting pots, salad bowls or rainbows. While all three approaches have advantages there can also be difficulties when dealing with diversity. "If you want the rainbow, you've got to put up with the rain!" - Dolly Parton. However, it is our contention that the value of proactively working with diversity as an opportunity far outweighs the potential costs.

Some may argue that their student groups are relatively homogenous and therefore diversity is not an issue in their courses. And while it is true that the easily perceived variability does not hold constant across all groups, there is, almost by definition, variability in each group. The authors define diversity as a natural and realistic state of being different, individually and collectively, which exists whenever a there is more than a singular student. Diversity, is often predominantly thought of as, culture, race, ethnicity, nationality, geography, gender, sexual orientation, socio-economics status, age, physical characteristics, beliefs, lifestyle, education, income, professions, health, personality, skills and experiences; however, our definition includes any difference that helps students to perceive and behave differently than other students.

Diversity is how our world is holistically, but since we construct ourselves within the framework of community structure that we were raised in, we often do not realize that our view does not reflect a holistic view of our world. People especially have a difficult time recognizing and considering other points of view when they have their own views on a particular subject; however, being able to not only define your own beliefs in the positive, but also being able to define your beliefs against what they are not helps to mature and better define one’s own perspective. Direct dialogue (as opposed to debate) about controversial differences helps create additional interpersonal and intrapersonal insights (Wright, 1994).

One of the strengths of the WEA curriculum is the opportunity it offers students to know what they know and to know what they don’t know (i.e. to increase their self-awareness). Wright (1994) proposed the metaphor of a light bulb to help illuminate this

process of identity formation. In his model, identity is composed of the physical self, academic self, social self, and cultural self. When all selves grow and become connected, the light bulb (self-empowerment) turns on, this results in a greater recognition of one's responsibility for their own behavior and consequences thereof, resulting in a more proactive orientation towards the world. Understanding one's selves and others, and moving beyond simple tolerance to take advantage of the rich dimensions of diversity is a healthy way to live in our world. It is also a proactive action orientation to working with the diverse reality around us. To do that, we need to go beyond the simple awareness of diversity that is akin to picking at an appetizer, and transform the differences into opportunities.

Obstacle versus Opportunity

What does it look like to change your approach to diversity from an obstacle to an opportunity? From our own experiences reconstructing ourselves in different cultures, working in the field of outdoor education, engaging in discussions, and reviewing the literature, we would like to introduce some of the ways we have helped groups to benefit from diversity.

Key 1: Building positive group awareness and consciousness of diversity

Schniedewind (2001) introduced their intentional and sequenced approach to diversity education. The first stage is to "create an inclusive trusting community where students embrace diversity in the classroom." We have found that traditional ways of approaching diversity can sometimes put people into roles (*I'm a White male so I should be quiet and apologetic during this session where other people get to talk about their feelings. I'm an Asian female and I should be the representative for the interests of my "people"*.), rather than directly addressing the issues at hand about how people perceive and; therefore, behave differently given the same stimuli. Hence, we are promoting activities and discussions that directly promote awareness of differences experientially while trying to minimize the baggage that can come with traditional framings.

Traditional wisdom (and our own experience) purports that it is a good idea to start slow with some low risk activities. These "ice breaker" type activities are designed to help the students get to know each other, while maintaining group emotional and social safety. Many popular activities can be modified for a diverse group.

For example, human map is an activity that allows participant to see and hear how the people around them are different than themselves. We have used questions like, "Where are you from?" "Where have you had a significant cultural experience?" "Where in the world would you like to go to learn something?" The students then place themselves in a "map" that the instructor has oriented them to ("That way is north and I am in Olympia, Washington." This is a relatively safe activity because students can choose at what level they want to expose themselves to risk. When answering the question of, "Where are you from?" the student who is originally from Ghana can choose his present residence in New York City or choose to indicate his native country. Moreover, when students answer the questions they can just describe their physical location, or they can choose to explain their reasoning further, "I chose to go the Ghana, because I have only lived with my dad in NYC for a year, but I grew up with my extended family in Ghana."

Part of creating group awareness is exposing one's own perspective. For example, we, the authors, come from two cultures where eye contact is seen differently. Often, in Japan, straight eye contact with teachers or older people is sometimes perceived to be challenging. In Western cultures, making eye contact with a teacher just means that you're paying attention and are interested. The literature (i.e. McKeachie & Svinicki, 2006) supports this difference in how eye contact also internationally and intranationally. There are a couple of kinesthetic activities that we have used to help students experience the relative differences in comfort with eye contact within their group.

"Eye'm in your space" can be facilitated in different ways, but the basic outcome is for people to assess their own comfort at eye contact and personal space. Start with the students paired up and standing in two lines about 20 feet apart, facing their partner. Next, tell the students that they need to maintain eye contact with their partner the entire time. After they have looked into each other's eyes for 10 seconds or so, give them an opportunity to tell their partner how comfortable they are with the eye contact and their personal space. Most students are comfortable with 20 feet of personal space, but some may feel uncomfortable with continuous eye contact. Next halve the distance that students are away from each other and have them check in again with their partner about their own and their partner's comfort levels. Continue to halve the distance and check in with their partner until either partner expresses discomfort. Allow time for these dyads to discuss their relative comfort levels with each other and the larger group. This discussion can be framed relatively unstructured or it can be framed to delve further into the what, when, where, and how of the diversity of comfort students feel with eye contact and personal space.

As the group becomes more comfortable with each other you can increase the level of potential social risk available to students in activities. Comfort Zones is an excellent activity that can provide an avenue for students to physically show and vocally express their comfort levels with different ideas. Basically, a person makes a statement such as, "eating sushi," or, "not taking a shower for 22 days," and the students choose to either move towards the middle of the circle, indicating their comfort with the idea, or away from the center of the circle indicating their discomfort. The instructor can customize the risk available to each student and to the group by the type of statement she asks and who she chooses to ask to explain why he chose to be where he is. Moreover, this is an activity which a group can use when they are trying to make a group decision.

Public exposure of difference could go sour unless a safe group atmosphere is maintained. Classic strategies such as full value contracts help to create positive group norms and increase the level of co-creation of group safety with the students. Second, fun and humor often bring groups together and helps to create an inclusive atmosphere. An authentic smile speaks well to all cultures that the authors have worked with in the outdoors. A sense of humor and the ability to laugh at oneself and recognize one's own human weaknesses is a desirable quality of leadership (Petzoldt, 1984). Third, leader behavior sets the tone for the group. If you work to move past simple tolerance to dynamic utilization, then they will to. Finally, the novel and sacred environment of wilderness is most often an ideal environment to build a positive diverse community. The wilderness sets its own norms that are the same for any human cultures encountering it.

Key 2: Share and focus on universal values

While diversity is important, it is equally important to recognize the similarities that group members share. Peace Corps (1997) categorized human perspectives and behaviors using a three category model, universal, cultural and personal. Universal refers to ways in which all people in all groups are the same. Cultural refers to what a particular group of people have in common with each other and how they are different from most other groups. Finally, personal describes the ways in which each one of us is different from everyone else, including those in our group. Often, individuals experience dissonance when their personal values differ from that of their group. It is important to recognize that seemingly uniform groups are not completely homogenous, but it is equally important to recognize and work with the universal values that bond humanity together.

By finding shared interests, barriers are more easily broken and crossed (Matthews, 1992). Cashel, Yoshino and Hayashi (2005) found that the desire to understand self and others, experience fun & enjoyment and have a love of the outdoors helped one diverse group of WEA students to come together and turn difficulties into learning opportunities. Students often found that they had more in common with people that they originally saw as being outside of their group and built new friendships based on the discovered similarities. The study of multicultural psychology has found that people universally attempt to gain a deeper understanding of themselves (Markus & Kitayama, 1991). The field has also found that the achievement motive is universally significant and thought to be a fundamental human characteristic. Students can all experience this achievement working interdependently in the structured adventures intrinsic to WEA courses.

One activity that we have used to discuss about the personal, cultural and universal is a journaling activity on motivation. Each student is asked to list what the top ten sources of motivation are for her or himself and what the top ten sources of anti-motivation influence their participation in this particular outdoor education experience. The students are then asked to join together in pairs and share their motivators and anti-motivators. Next, have the groups define each of their sources of motivation as either personal (particular to only themselves), cultural (particular to some self-defined group which they are a part of), or universal. Finally, these smaller groups get together and share their sources and whether they think they are personal, cultural or universal. Classifying the sources of motivation into these three categories is slippery business. Ultimately, participants usually find that most sources of motivation have elements of both universality, cultural specificity and individuality. The point is to get students to understand both. Students gain a greater understanding of how different sources impact the motivation of themselves and their group members.

Diversity has value in outdoor education not only because of the variety of perspectives that it brings to different issues, but also because it can starkly remind us of how much we have in common.

Key 3: Engage knowledge of diversity into action.

The achievement motive is universal and thought to be a fundamental human characteristic (Markus & Kitayama, 1991). Therefore, the question is not whether all people want to achieve, but how the group can bundle together the many strings of individual motivation to weave a mighty rope of group motivation.

The aforementioned activity is one possibility to help groups become more aware of their individual motivations. Once people realize what motivates themselves and others to

achieve, then they can ask for the type of support that they need and provide the support that others need in order to achieve their mutually held goals.

Past studies showed people from different cultures are motivated in different ways (Walker, Deng, & Dieser, 2005). One option that one of the authors has used in the past is to design the group contract around group goals and individuals motivations. The students are asked to create a group contract. This group contract has multiple group goals. Beyond the title, a description of what that looks like can be written down. Next, each group member writes down one source of motivation that they have to help achieve each of the group goals and a way that they will hold themselves personally responsible for, and expect the group to hold them responsible for achieving each goal. If there is a group goal in which a member feels like she does not have any motivation to help achieve, then the group should discuss that goal and see if that is really a goal that group wants to hold itself accountable for.

After the group contract has been created the group needs to find a way to hold itself accountable to this contract. One method that has worked is to have each student discuss a group goal that they helped support and another one which they did not that day. The facilitator of this activity, whether it is an instructor or fellow student, can help each student identify, the why and how of not only what they did, but also what they are committing to do in the future in order to make the achievement of that goal a reality.

Another method is to take advantage of differences of opinion and explore where those differences come from and how that diversity can help the group. We are not contending that it is practical or beneficial to debrief every difference in opinion that arises in a group; however, differences that come early in the group can prove to be useful issues to help a group recognize its own strengths.

For example, two students disagree whether the group should cross the crevasse at the ice bridge, which some perceive as a bit sketchy or make the long trudge around it. A conversation of this can help the group to recognize who in the group has a greater awareness around potential hazards and who can help rally them during intense challenges. It is not always easy for instructors to identify, remember and then frame these opportunity finding moments; however, it is this group of skills that an instructor can use to help their group move close to the dynamism of the rainbow.

Key 4: Commitment

Commitment is the key to making diversity an opportunity rather than an obstacle in the student's course and in their life beyond. Groups can sometimes fall into poor past practices when the going gets tough. It is vital for students to be able to recognize and utilize diversity especially when challenges become more intense, whether that challenge is a mountain climb, group conflict, or personal issues.

It is easy to peripherally work with diversity during the "honeymoon period" of groups, we can greet each other using different languages, talk about hobbies, and so on; but commitment is required after the initial period to make diversity a "rainbow" of opportunities and move beyond a simple "salad bowl" stage of simply recognizing group differences. DiTomaso (1996) criticized diversity management for focusing on the issues of awareness, understanding, perception, and reactions to difference while failing to commit to an action orientation. Real opportunities for development exist beyond simply picking at the appetizer, we need to jump in and savor the meals.

To maintain that commitment, the leader of the group needs to be committed to mediating the differences in the group into a greater whole. Gerzon (2006) described a mediator as a type of leadership that turns conflict into a positive force for achieving our larger purposes. He introduced eight tools for the leader as a mediator: (a) integral vision, (b) systems thinking, (c) presence, (d) inquiry, (e) conscious conversation, (f) dialogue, (g) bridging, and (h) innovation. A mediator can be defined as being an arbitrator to end group conflict, but it can also be a conduit that helps the transference of ideas and practices. And this latter definition is the one that is more applicable do a leader who wishes to help their group opportunize on their differences. That leader helps build the group space for the group to share their differences, strategize how they can be helpful and enact their strategies.

Conclusion

While much of the empirical work hasn't been done yet, theoretically and experientially, outdoor education is an ideal learning environment to explore using diversity as a tool to further educational outcomes. It can be especially effective to teach parts of WEA curriculum such as leadership, group dynamics, communication, and cultural history.

Achieving the potential benefits of diversity requires conscious leadership at all levels. This style of leadership requires effort with a clear vision; however, the authors contend that the rewards to the group and the leaders themselves for this type of conscious leadership are immense and can not easily be obtained elsewhere. DiTomaso (1996) emphasized the importance of the process through which visions are created and what problems these visions address. Hopefully this presentation and documentation will help move the WEA vision towards recognizing diversity as an opportunity rather than an obstacle.

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Frank Lupton's Magic Rope

Frank Lupton
Western Illinois University

Rope is one of the best mediums for getting a group of people together. Build instant rapport. Be a rope Guru. Capture the attention of everyone you meet. It is important to note: Not just any rope will do! It has to be a special magic rope, and it must be in the hands of someone who can empower the rope to do its magic. Anyone can gain the "power of the rope" with hard work, determination, perseverance and a "knotty" personality. While some of these knots and puzzles relate to knots used in climbing they do not qualify for climbing! CAUTION: DO NOT USE ANYTHING YOU LEARNED IN THIS WORKSHOP FOR CLIMBING! IT COULD BE HAZARDOUS TO YOUR HEALTH!!!

A purpose of this workshop was for participants to learn to use a "monkey's fist" rope in such a way that an overhand knot is cast into the rope. Much practice is required to become proficient in casting the knot into the rope (a bit of luck helps also). The rope was ¼ inch braided nylon and was 6 feet long. Tying the monkey's fist knot is a bit involved. It took up nearly 2 feet of the rope.

The monkey's fist rope is very suitable for tying many regular knots plus doing some tricks and puzzles. The following were accomplished even though they were not perfected or solved by everyone.

Rope Tricks

1. Figure Eight. Throw a Figure Eight knot into the rope while holding on to one end.

2. Slip Knot. Drape the rope over the wrist and whip a Slip-knot into the rope as it slides from the wrist.

3. Half-hitches. Cast a series of half hitches onto two fingers and then make a chain of overhand knots as they are removed from the fingers.

Rope Puzzles

1. Impossible Knot. Hold one end of the rope in each hand and follow a series of moves that results in an overhand knot being tied in the rope. (There is another way to solve this puzzle.)

2. Bow Knot. Quickly tie a Bow Knot by holding the rope in the middle with both hands. A second challenge is to untie the Bow Knot after putting the ends of the rope through the loops of the rope.

3. Rope Handcuffs. Tie one end of the rope to each wrist. Cross the rope with a partner's rope before tying it to the partner's wrists. The object is to get unhooked from the partner

without untying the rope from the wrists. (It may involve some unusual positions while working to solve the puzzle.)

4. The Nose Knows. While one person holds the rope taut at chest height, another person smells the length of the rope seeking to locate a fingerprint put there while his/her back was turned.

"When you get to the end of your rope, tie a knot (monkey's fist, of course) and hang on …… and swing!"

Leo Buscaglia

A SPECIAL NOTE: When you solve the mystery of casting the knot into the monkey's fist rope or solve the other puzzles you should not share the solutions with anyone --- at least not for a time. There are two reasons for this:

1. First of all it deprives them of the opportunity to solve the problem, and that isn't fair!

2. Second, and maybe more important to you, you are smarter than they are at that time! Enjoy it! It may not happen very often!

Assessing the Development of Environmental Virtue in WEA Program Participants

Bruce Martin, Ph. D.
University of Northern Colorado

Abstract

This presentation offered a description of a study currently in progress. The study is exploring the development of environmental virtue among 7th and 8th grade students in an Expeditionary Learning Outward Bound school. The session explored the possibility of modifying the measures used in this study to assess the development of environmental virtue in WEA program participants.

Key Words: Environmental Virtue, Expeditionary Learning Outward Bound, Character Development

Introduction

In this session, the author described a current study exploring the cultivation of environmental virtue among 7th and 8th grader students in an Expeditionary Learning Outward Bound school. The author then attempted to explore the possibility of modifying a survey instrument developed in this current study for use in assessing the development of environmental virtue in WEA program participants.

One of the primary goals of outdoor leadership is the preservation and protection of the natural environment. The mission of the WEA is "to promote the professionalism of outdoor leadership, improve the safety of outdoor trips, and enhance the conservation of the wild outdoors" (Berman and Teeters, 2003, p. 7). WEA's tagline is *preservation through education*. The development of this assessment tool will help determine the extent to which WEA program instructors are successful in fulfilling this mission.

Why environmental virtue? Point 4 in the WEA 18-point curriculum is devoted to environmental ethics. This point states in part: "Participants will be exposed to a basic environmental ethic by practicing skills and techniques that promote a minimum impact on the environment" (Berman and Teeters, 2003, p. 8). The relationship recently initiated between WEA and the Leave No Trace Center for Outdoor Ethics further emphasizes the role of environmental ethics within the WEA curriculum. WEA is ultimately promoting an *ethic* of stewardship in individuals in their relationships with the natural environment. Environmental virtue ethics is a new and burgeoning discourse within the broader realm of environmental ethics (Sandler and Cafaro, 2005; Wensveen, 2000). "Virtue is an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods" (MacIntyre, 1984, p. 191). Virtues promote human excellence. In the case

of environmental virtue, virtue promotes human excellence in relation to the natural environment.

The study that was presented to session participants was designed to assess the extent to which the Pioneer School for Expeditionary Learning in Fort Collins, Colorado works to cultivate environmental virtue in its students. Expeditionary Learning Outward Bound (ELOB) is based on ten design principles, one of which focuses specifically on helping students to develop a harmonious relationship with the natural world. As Emily Cousins notes in describing the aim of this principle: "A direct and respectful relationship with the natural world refreshes the human spirit and reveals the important lessons of recurring cycles and cause and effect. Students learn to become stewards of the earth and of the generations to come" (Cousins, 1998, p. 50). The aim of this study is to explore the extent to which the school fulfills the goal of this design principle. Holding true to Outward Bound's traditional focus on character development, this study addresses this question in terms of the development of environmental virtue.

The Study

The study relies on a mix of quantitative and qualitative research methods in its collection of data. The study's measures are intended to assess the extent to which students are developing or adhering to certain environmental virtues over the course of a particular learning unit. The learning unit around which the study is bounded is a 7th & 8th grade learning unit entitled "From Water Sheds to Water Faucets." The unit focuses on water quality issues along the Poudre River, from its headwaters in Rocky Mountain National Park to Fort Collins where it serves as a primary residential water source.

The study's qualitative measures consist of observations of students and teachers engaged in the learning unit. They consist of interviews with students, teachers, and administrators in the school. They also consist of a review of archival items such as lesson plans, student portfolios, etc. The purpose of the qualitative portion of the study is to illustrate the character of moral conversation among students and teachers in the school when it comes to the development of environmental virtue. The study relies on open and axial coding in analyzing the qualitative data.

The study's quantitative measures are based on a survey instrument developed as a part of the study called the Children's Environmental Virtue Scale (CEVS). This instrument was administered as a pre- and post-test at the beginning and at the end of the "From Watershed to Water Faucet" learning unit. It is intended to assess the extent to which students develop environmental virtue over the course of the learning unit. The instrument was adapted in part from the Children's Environmental Attitude and Knowledge Scale (CHEAKS) (Leeming and Dwyer, 1995). CHEAKS was developed as an age-appropriate survey instrument intended to assess both environmental knowledge and environmental attitude among students in grades 1-7.

A secondary goal of this study is to test the validity and reliability of the CEVS. To do this, the survey was piloted among 7th & 8th grade students at a public middle school in Greeley, Colorado. It was also administered to a group of 7th and 8th grade students at

Frontier Academy in Greeley, Colorado, as well as, students at the Pioneer School. Frontier Academy offers an interesting contrast to the Pioneer School, because it is based on E. D. Hirsch's (1986) core knowledge approach to schooling. E. D. Hirsch is considered to be the intellectual progenitor of the standards of learning movement in United States. Simply put, core knowledge schools are the opposite of ELOB schools both in terms of educational philosophy and in terms of educational methodology. This study will rely on various forms of data analysis using SPSS 14.0 to determine the validity and reliability of the instrument, including factor analysis, confirmatory factor analysis, as well as other forms of analysis.

My hope is to refine the CEVS for use in future studies. In particular, I hope to modify the CEVS for use in assessing the development of environmental virtue in WEA program participants. This line of research represents an original contribution to both the field of environmental ethics and the field of outdoor/experiential education. As was noted earlier, environmental virtue ethics is a new and burgeoning discourse within the broader realm of environmental ethics. Little or no empirical research has been conducted to verify concepts that are emerging in the literature. This research contributes in this area. Also, it is commonly assumed that adventure program experiences can lead to character development in individuals; yet, there is little empirical research to support this assumption. This research will contribute to the outdoor/experiential education literature by helping to reveal the extent to which this assumption is true.

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Taking over a University Outdoor Recreation Program. Where do you begin?

Tim Mertz , Stout Adventures Coordinator, University of Wisconsin
Ivan Bartha, Coordinator for Experiential Programs, St. Cloud State University

Abstract

A college or university has hired you to take over the outdoor program, now what? Where do you even begin? This round table workshop was an opportunity for those that have successful programs, those that are currently working on programs and those that hope to one day take charge of a program. By learning what worked for others we were be able to evaluate macro & micro needs necessary to get a program off the ground. This was a guided discussion with an emphasis on developing priorities, establishing and appropriate culture and strategies for working within the university/ college system.

Macro Objectives

This session was designed to be a 90 minute round table discussion in which experiences and thoughts regarding the topics concerning us the most were shared. We then opened up the floor to others that have similar backgrounds so that they could share their point of view. Approximately 60 participants joined our session and the discussions that occurred were very active and informative. The diversity of knowledge in the room helped foster an excellent environment for open discussion.

The session opened with a presentation of the Macro objectives that a new Coordinator or Director of an outdoor program should consider. Immediately, we touched on risk management. This topic alone could have provided enough discussion for a 90-minute session. However, we isolated several key components. These included the training of staff in all programming areas (Ropes Course, Equipment Rental, Climbing Wall, Trip / Clinic programs). We then discussed program forms such as membership forms, assumption of risk and liability waivers etc. Then we looked at the history of the program. The new coordinator should look back at near-miss reports and other malfunctions the program may have experienced. Use as much information as possible to streamline and review policies, procedures and guidelines for staff manuals. Then finally, look at what is being documented and what isn't.

Our second Macro objective was to look at the Leadership roles of staff. Identify the student staff leaders. Were they appointed to those positions and are they deserving of those positions. How can you develop additional leaders? Who is in a leadership role that shouldn't be? Are they contaminating the rest of the staff with a bad attitude or poor work ethic? How do you foster a positive environment in which natural leaders will step up and set a good example for the rest of the staff to follow?

The third objective was to take back authority. This objective tied into the 2nd objective. Many programs have a lag time in which the outgoing coordinator leaves the program before the new coordinator is hired. During this time the student staff is often the glue that holds the program together. Once you are hired, you need to reclaim the role of Coordinator or Director. When you make changes you must be firm, decisive and must not waiver. Remember, that after one year no one will remember what "once was".

The fourth objective was to learn the system in which you work. Every university or outdoor program has a different way of operating. This includes the chain of command. We recommend that you find a friend in the upper end of the system. This will make overcoming obstacles much easier. Find a flow chart of the positions within the system and know everyone's job description. How long does it take to activate a new initiative after you propose it? Where does your program get its funding? If in a University, learn the names of the individuals in the student government and learn how the student government works. Offer them free days on the ropes course or on the climbing wall. Build a relationship with them. It will make asking for more money next year much easier.

The fifth objective was Financial Status. When you take over, identify whether the program is sinking or swimming. Then get control of the current budget and look at the data from past years. Does your department share the budget with other departments? How many dollars per student does your department receive each semester if you are working within a University system? Have the programs in the past broken even or turned a slight profit? What programs are worth running even if they lose money? How much money do you have available to hire additional staff, replace equipment, make repairs or structural changes to the ropes course or climbing wall, and are there additional funding sources throughout the university system?

The sixth objective was the Relationship with the Community. Are your programs open to the community? What attempts have been made to reach the community in the past? Can you develop your website to reach out to the community? How about a message board on your website? Can you offer a gear swap or open invitations to clinics and workshops. How about an open house? What local events occur within the community that your program can help sponsor, organize, promote?

The seventh objective was how to deal with "abandoned staff". Remember there may be a time lapse between outgoing and incoming coordinators. The staff needs to be reassured that you are here to stay. Yes, you will have to spend money and time with them. Possibly organize a staff weekend outing. This will give them a great opportunity to learn about you, and vise versa. Be a leader, and offer guidance to show them you are on their side and are going to run the program with strength.

The final macro objective was to evaluate the programs you offer. Are your programs nondiscriminatory of skills and abilities? Is the program offering activities that are in the staff's best interests or are they provided for the community and the students? Is the climbing wall user friendly and designed to appeal to all users? Are your programs growing in size and demand?

Micro Objectives

The macro objectives are often the most important and most obvious to identify, however, the micro objectives comprise a larger part of the program. They are more time consuming and harder to identify. We opened up the micro discussion with the idea that you need to earn support from other full-time faculty and department peers. Do they recognize the importance of your program? Have you made an attempt to include them in your programming? Oftentimes people do not realize the benefits and power of a ropes course until they experience it themselves. Have you been properly introduced to other key departments with which you will work (purchasing, marketing, billing, campus mail, fleet vehicles, scheduling, student life services, and residential life)?

The second micro objective was to establish your identity. What have you done to distinguish yourself and your goals? What will you do to set your program apart from others within the state or region? What can you do to create a unique niche that outside programs will try to model?

Thirdly, what is the cash management system your program uses? This is can be a very time consuming problem if staff are not properly trained. How sound is the cash management? Has the student staff been properly trained? Can you look back at variance statistics? Do you have point of sale capabilities? What payment options does your program offer? Are they options that your users want? Let's face it; cash management is crucial to the program. Spend the time to understand the concept.

The fourth objective was to look at your marketing. Do you have the ability to produce flyers, posters, post cards, and newsletters? What can you do that is different and more appealing to the students? Do you have access to graphic designers, multimedia designers, web designers and web developers? Your program ultimately lives or dies based on marketing.

The fifth objective was to establish an inventory control model. Get a hold of what you have and do not have. Check out the first aid kits and be sure they are being replenished. Do you have enough paddles and lifejackets to rent out your entire canoe fleet? How about the route setting kits for your climbing wall, does the staff have the proper tools to get the job done or are tools going missing? Once you have settled in, take the time to inventory the entire program, and then devise a 5 year equipment replacement / procurement plan. This will help with budgeting and anticipating upcoming expenditures.

The sixth objective was to devise a solid staff schedule. Can you take advantage of work-study wages? Are you adequately staffed during heavy usage times? Do you have a shift leader or a lead student manager available during open hours? Do you bring in extra staff for special events? Can you afford to pay staff at special events? Do you hold mandatory staff meetings on pre-arranged days? Can you track payroll? Do you need to hire additional staff to increase programming hours or do you need to cut back on staff.
Are the staff getting the hours they need?

The seventh and final objective is to look at your hours of operation. Do you need to be open on weekend? Are you open when users want you open? Should you have more hours during different phases of the year / seasons / semester? How many hours is your operation open during the week?

Conclusion

Taking over a university outdoor program can have many pitfalls. Considering all the above macro and micro objectives would be critical to ensure a successful transition in leadership.

Using a PERT Chart for Planning Expedition Courses

Dr. Maurice Phipps
Western Carolina University

Abstract

The theoretical concepts of PERT (Program Evaluation and Review Technique) were given, followed by participants brainstorming a WEA course list of tasks. Discussion on order of the tasks and possibilities of "stacking" were then discussed. An example of a PERT chart for a Teton course was shown. Using input from the different groups' lists, a generic WEA Course PERT Chart without times was constructed by the author for this article.

Keywords: PERT, planning, optimistic, pessimistic, and most likely times, critical path

Introduction

Expedition planning is a considerable task and probably cannot be fully understood until one has actually gone through the process from start to finish. However, there are some important concepts that can help the planning process. These concepts are: what has to happen and where, and understanding timing – when things have to happen as well as knowing how long it takes to do some things. Just making a list and organizing the activities in sequential order is only a first step. A really useful tool is to slot all this information into what is called a PERT Chart, where PERT stands for Program Evaluation and Review Technique. This network model was used to develop the Polaris Submarine, which involved many different contractors all having to meet deadlines to enable the whole thing to be built in a timely manner. A real advantage to a PERT chart when a planning team is being used, is for it to be pinned to a wall in a communal area where planners names are added to each activity in the network which is drawn in a horizontal fashion. This enables folks to see that if they don't get their task done, it will hold up the next stage. People being held up, also know who to go to, to try and move things along. So what does a PERT Chart look like? Here is a simplified example for building a modular cabin. Obviously, many details have been omitted to enable the concept to be shown in a simple fashion.

Simple Modular Cabin PERT Chart

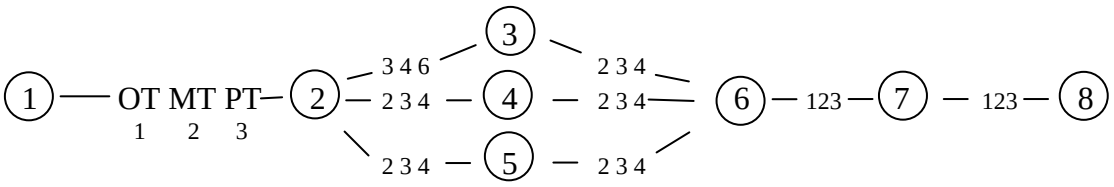
Start by developing a list of all the tasks, then rank order them after working out things that can be done at the same time (see below):

1. Design the cabin
2. Plans are available
3. Build the roof
4. Build the walls
5. Build the floors
6. Assemble the walls

7. Put on the roof
8. Paint the cabin.

Draw a "network" horizontally with the above tasks, stacking the things that can be done at the same time. Estimate the Optimistic, Most Likely and Pessimistic times and add to the network as in figure 1.

Figure 1. PERT Chart



OT = Optimistic Time
MT = Most Likely Time
PT = Pessimistic Time
For this example the times are in days

Work out the longest time through the network. This is called the CRITICAL PATH. Highlight this path and use these numbers. On the chart above, it would be the top path. Plug the numbers into the following formula:

OT = Optimistic time = 8
MT = Most likely time = 13
PT = Pessimistic time = 19

$$\text{Realistic Time} = \frac{PT+4(MT)+OT}{6}$$

$$\text{Realistic Time} = \frac{19 + 4(13) + 8}{6}$$

= 13.2 days of planning time
Start on May 10
(Assuming the cabin needs to be complete by May 24th)

This formula is based on a beta distribution for the time estimates (NetMBA.com).

For a new project, if one does not know the estimated times, then this is the time to call around or visit with someone who has done it before. Obviously there are some time related decisions that are critical in expedition planning, for example, how long does it take to get a land agency permit. If you haven't secured a permit in time for the trip, then it would have to be cancelled or taken to a different place and sometimes it can take a couple of months to get through the permit process with the Forest Service.

Instead of ranking tasks, 1, 2, 3 etc., incrementing numbers by 10 could allow for new numbers to be inserted without having to change the rest of the numbers in the diagram if something has to be added later (NetMBA.com). So, what kinds of tasks are needed to get a WEA Expedition Course planned? Initially there are many things to consider as well as the "nuts and bolts" tasks. The following is a list of these things that Paul Petzoldt gave us on a Professionals Course (Petzoldt, 1983). Some of these items would be needed in the PERT Chart, if not all if this is a new course. For a well-established course some may not be required as they are already built I over the years like land use regulations or local population and customs. This is Paul's list:

1. Purpose/objectives
2. Who?
3. Where?
4. Climate/weather /terrain acceptability for the above group?
5. Logistics of the road head (including getting there)
6. Maps and instructor knowledge of the area
7. Permits
8. Equipment
9. Clothing
10. Finances/budget
11. Food
12. All Individuals' health and hospital insurance
13. Liability insurance
14. Beginning and end of trip logistics
15. Interior logistics including any necessary transportation
16. Pre-trip understanding on expedition behavior
17. Medical, evacuation, and emergency finances
18. First aid materials and qualified people
19. Risk management plan
20. Land-use regulations and the law
21. Local populations and customs
22. Risk and liability understanding by instructors and students
23. End of trip understanding on: equipment loss/damage/ownership, extra expenses/photograph use/publishing
24. Leadership - who is the designated leader or co leaders?
25. Emergency messages and outside communication
26. Purpose and fulfillment plan
27. Climate control plan
28. Time control plan
29. Energy control plan
30. Health control plan
31. TRIP
32. Evaluation

Besides Paul's list, there are other details to add in, like when to order cooking fuel, purchase new equipment, forward paperwork into the National Office. So here is an example (figure 2) of a PERT chart without the time estimations for the Teton Course run from Western Carolina University followed by figure 3., a chart for a generic WEA course. Some abbreviations to note are:

RMP = Risk Management Plan
UFS = United States Forest Service
GDQ = Group Dynamics Questionnaire
IEQ = Instructor Effectiveness Questionnaire
ELSA – Expedition Leader Style Analysis Inventory

Package #1 included a letter of acceptance and a personal clothing/gear list
Package #2 included a letter informing meeting times and reminding students about specific clothing and footwear as well as forms that needed to be returned – WEA certificate information forms, waivers, medical forms, photo release forms, health insurance information, etc.

Figure 2. WEA Teton PERT Chart (without time estimations)

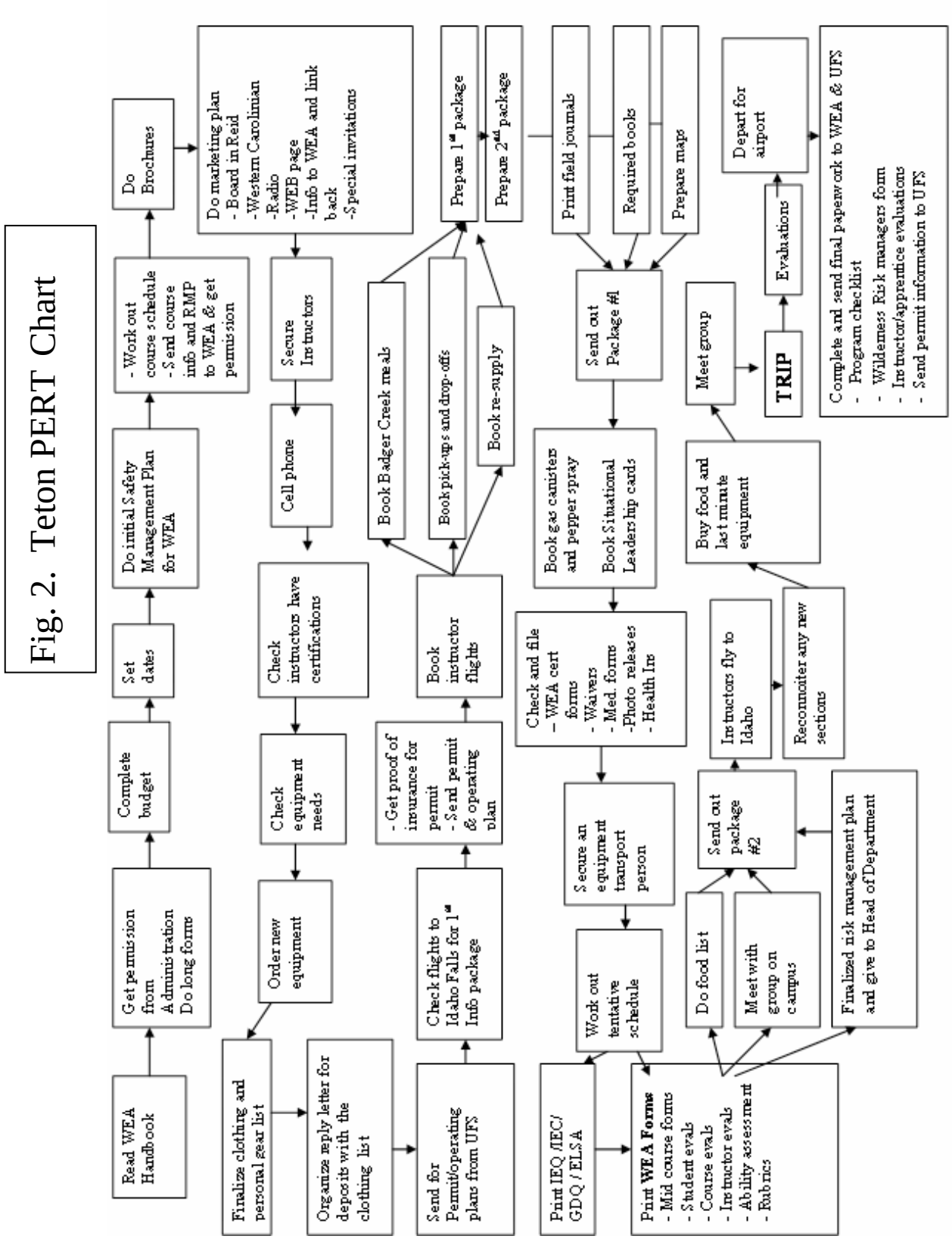
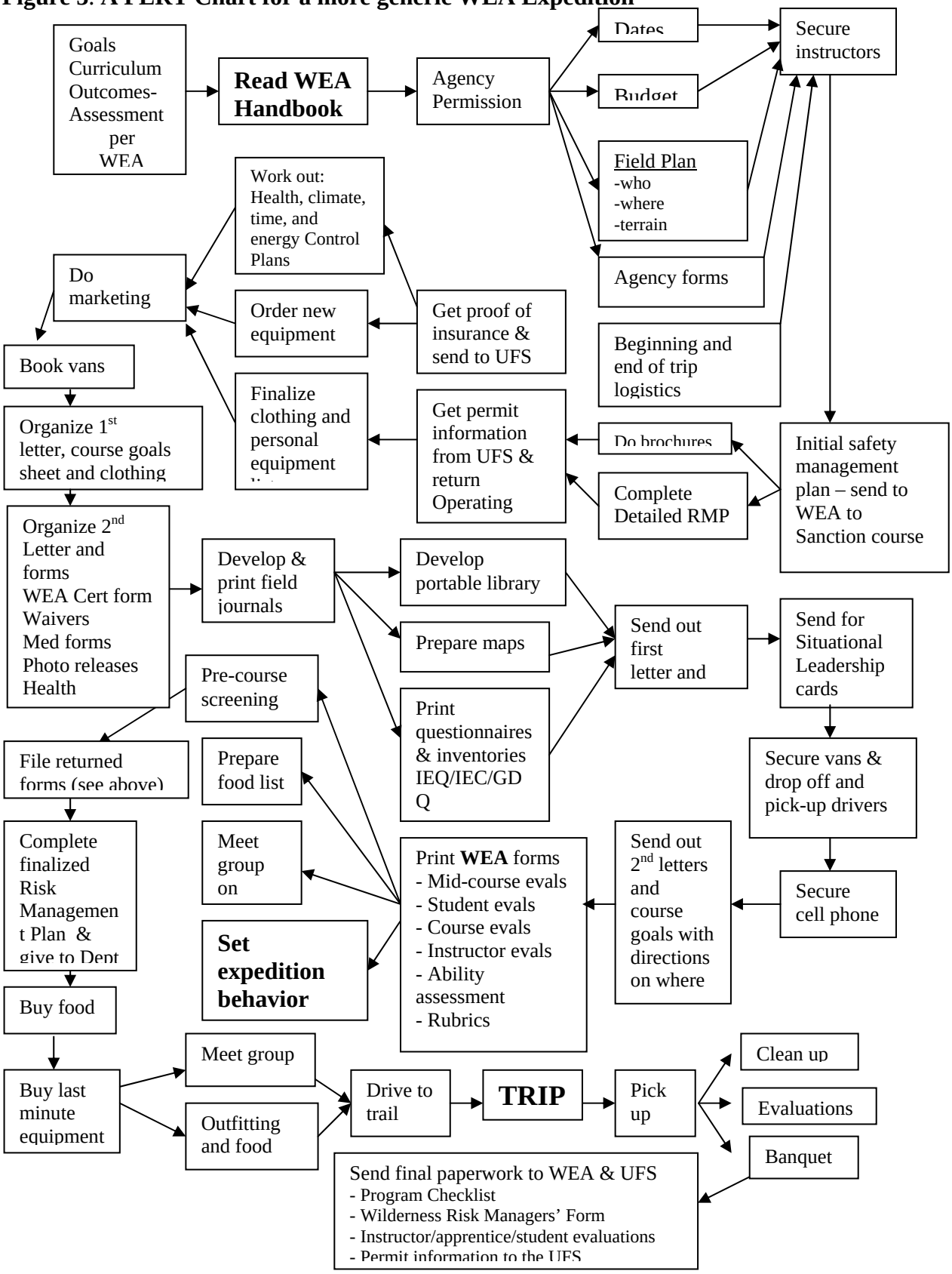


Figure 3. A PERT Chart for a more generic WEA Expedition



Conclusion

Using a PERT Chart allows for very detailed and accurate planning. The time spent to do one at the beginning of a project can save lots of time later and can actually save a trip by making sure that critical deadlines are not missed. It is especially effective in keeping a planning team on track if pinned to a "communal wall" with times, dates and the individuals' responsible for the tasks names added. Masters of the above charts are available from Maurice Phipps, email, phipps@email.wcu.edu

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Does A Bear Sh** In The Woods? Yes, But *We* Should Pack it Out!

Lara Usinowicz, Sales and Marketing Manager, Restop

Abstract

This presentation reviewed the Leave No Trace principles with special reference to disposing of human waste. Details include large amounts of waste in various popular areas of the country

Introduction

The Leave No Trace ethics are an integral part of wilderness education but, on occasion, it is necessary to review these ethics to ensure that we are educating our students properly as well as abiding by them ourselves. This paper will review the Leave No Trace ethics with an emphasis on the issue of human waste in the backcountry.

LNT Principles

The seven principles are:

Plan Ahead and Prepare
Travel and Camp on Durable Surfaces
Leave What You Find
Minimize Campfire Impacts
Respect Wildlife
Be Considerate of Other Visitors
Dispose of Waste Properly

The issue of human waste will be covered in depth with a review of the other ethics. The World Health Organization estimates that the average adult human produces about one liter - - some two pounds worth - - of excreta per day, half of that being solid waste (Caincross, 1992). If there is a group of five on an outing, the group is producing five pounds of solid waste per day. While a group of five is a small group and may not seem to be heavily impacting the wilderness, five pounds of solid waste per day per group of five very quickly starts to add up. When we stop to consider how many groups of five are out on any given day in any given area, it starts to put the impact of human beings into perspective.

For the sake of discussion, consider that in 2005, Grand Canyon National Park counted 238,381 backcountry overnight stays. If most of those visitors stayed in the park for 24 hours, that means that 120 tons of human urine and feces was bequeathed upon the Grand Canyon backcountry in 12 months. In the month of January, in the Great Smoky Mountains National Park, there were 3,220 overnight stays, 2,311 of those in the backcountry. They've only had to deal with one ton of excreta but that is in just one month and, in the month of January, not exactly high season.

During the 2004-2005 season, 4206 people went to Aconcagua National Park in Argentina to climb this 20,886 foot peak. The trek to the summit takes between 10 days and two weeks. If half of those who attempted to summit -- 2000 people -- were successful and spent the ten days on the peak, that would amount to 40,000 pounds of excreta.

The statistics are endless and simply show the extent of the human waste issue and the need to take responsibility for this in the great outdoors. There are areas where you can bury your waste. The proper method is to dig a cat-hole 6 to 8 inches deep at least 200 feet from water, camp, and trails. After use, cover and disguise the cat-hole and pack out all toilet paper and hygiene products.

While digging a cat-hole is a viable option, it is interesting to note a wilderness impact study commissioned by the Sierra Club in the 1970s (Reeves, 1979). The nonprofit organization wanted to find out what impact its organized "Sierra Club Outings" backcountry trips were having on California's Sierra Nevada Mountains. A group of researchers observed (from afar) the defecation practices of the Sierra Club Outings participants—most of whom were traveling in large groups and using latrines to do their business. The group leader would usually determine where the latrine was dug, and the big hole was then a receptacle for all of the group's waste for, in most cases, less that 24 hours. The researchers made a note of all the latrine sites scattered across the Sierras, then they went back anywhere from one to three years later and uncovered the latrines to see what had happened to the feces. The researchers found that the waste, along with the many resident bacteria, was alive and well and had decomposed very little, if at all.

Another study about a decade later in Montana's Bridger Range unearthed the same truths -- except this time the focus was on cat-holes rather than latrines (Temple, 1982). Researchers from Montana State University buried bacteria-rich deposits of human waste in cat-holes that varied in depth from 2 to 8 inches and were located in six different types of Rocky Mountain soil environments and elevations. When the samples were dug up 51 weeks later, after one winter had passed, all the feces remained a virtual playground for various disease-causing bacteria (namely E. coli and salmonella). The report, entitled "Potential Health Hazards from Human Wastes in Wilderness" said, "The idea that shallow burial renders feces harmless in a short time is fallacious." It continued, stating, "Site did not make the difference that we expected. The results seemed to apply to all elevations and exposures on the mountain. From our data, it is unrealistic to hope for a rapid die-off of intestinal bacteria in cat-holes. Pathogens might be transferred to later campers in three ways: direct contact with the feces, by insect, or by water." Both studies pointed out, however, that putting waste in cat-holes was preferable to a latrine because the smaller the fecal deposit, the greater its contact with surrounding soil, organisms, and air, which are central to the decomposition process.

There are many areas where burying your waste is not an option. These include: heavy use areas, at trailheads and other areas where digging a cat-hole might entail digging up someone else's waste, in deep river gorges: where it is impossible to travel the required 200 feet away from the river, along any waterway where there is only sandy soil which doesn't have the nutrients to decompose waste, in canyons and high deserts where the soil is also

without the microorganisms necessary to biodegrade human waste, above the tree-line, in any mountaineering or climbing venue where the soil is too rocky to dig the required 6-8 inches for a proper cat-hole. While a cat-hole is an option in some areas, one must ask one-self if it is the best option. Perhaps if we teach students and get them accustomed at a young age to the idea of "packing it out" and provide them with a user-friendly and pleasant means to do so, we can prevent more areas from becoming problem areas.

While any method of carrying out your waste is better than the alternative, whether it is a plastic baggie, a PVC tube, or the "blue bag" that is offered in several mountaineering venues, such as Rainier, compliance is an important issue so the method should be as pleasant as possible. The Restop products offer a safe and sanitary means to deal with human waste in the wilderness. The Restop 2 solid waste bag contains the odor as well as the waste. Inside the bag is a powder, a polymer/enzyme blend, which biodegrades and gels the waste, giving it EPA approval to be simply thrown away in the trash after use. Restop provides the user with an inexpensive and effective means to comply with the outdoor ethics of Leave No Trace. Zion National Park hands out the Restop product with your backcountry permit. They switched to another product, the Wagbag, due to its degradability but then switched back to Restop because of problems with compliance. They were finding that people were trying to "do the right thing" but, because of the odor issue, were now leaving their bags of waste in the wilderness.

Mount Rainier provides a system known as "the blue bag." It is simply a blue plastic bag and the method is to defecate on the snow and then use the bag as a mitt to pick up your waste. Then, these bags are thrown into receptacles on the mountain. This is a fine system but it makes the National Park responsible for carrying out canisters of human waste. The Restop products empower the individual to be responsible for him or herself.

In Grand Teton National park, they used "the blue bag" system. When the canisters were full, the Park Service would helicopter them out. That came to a halt when one of the canisters was accidentally dropped and the backcountry was littered with blue bags of human waste. They now hand out the Restop products to visitors.

The Restop bags retail for $12.95 for a five-pack so they are an effective, accessible means for everyone to take things into their own hands. We can each take responsibility for ourselves in the wilderness or we can "let it go to sh**" so to speak.

While the issue of human waste is the emphasis of this paper, a review of the other 6 principles of Leave No Trace is always helpful to serve as a reminder of how to conduct oneself in the great outdoors. The remainder of this paper will serve as that review.

LNT Review

Plan Ahead and Prepare

Know the regulations and special concerns for the area you'll visit. For example, if you are going backcountry hiking, do you need a permit? If you are going kayaking, what level is the water running at? If you are going climbing, are there any route closures due to animal breeding? Do your research -- don't go into things blindly.

Prepare for extreme weather, hazards, and emergencies. Bring extra clothing -- rain gear, long pants. The sun might be out when you start but it might be snowing an hour later. If you are climbing and you hear thunder, or worse, see lightning -- turn back! The mountain will be there tomorrow and you should be too! Don't risk it. Prepare for hazards. If you are going backcountry skiing, take an avalanche class. If you are rafting, scout the river. Prepare for emergencies -- tell someone where you will be and when you will be back. Bring a first aid kit. Bring a spare tube if you are biking. Bring a cell phone. All of these things sound simple but there are constantly stories of accidents and tragedies that could be avoided. (Everest, that idiot Aaron, etc.)

Schedule your trip to avoid times of high use. This cannot always happen with the workweek but it leaves less impact not to mention it is a lot more fun when you don't feel like you are with the crowd. Take a midweek break, go winter camping, go really early or really late. Visit in small groups. Split up large parties into smaller groups of four to six.

Repackage food to minimize waste. Not only will this minimize waste, it will minimize weight. So much of food products these days have excessive packaging that is unnecessary to carry.

Use a map and compass to eliminate the use of marking paint, rock cairns or flagging. A lot of times, on established trails, you will see cairns or paint marking the trail but there's no need to add to that. If you are not on an established trail, know your route and bring a map or compass to aid you.

Travel and Camp on Durable Surfaces

Durable surfaces consist of established trail and campsites, rock, gravel, dry grasses or snow. Protect riparian areas by camping at least 200 feet from lakes and streams. These areas are sensitive and, therefore, should be avoided for camping. Good campsites are found, not made. Altering a site is not necessary.

In popular areas
Concentrate use on existing trails and campsites.
Walk single file in the middle of the trail, even when wet or muddy.
Keep campsites small. Focus activity in areas where vegetation is absent.

In pristine areas
Disperse use to prevent the creation of campsites and trails.
Avoid places where impacts are just beginning.

Leave What You Find

Preserve the past, examine, but do not touch, cultural or historic structures and artifacts. Look but don't touch! Leave rocks, plants, and other natural objects as you find them. Avoid introducing or transporting non-native species. Do not build structures, furniture, or dig trenches.

Minimize Campfire Impacts

Campfires can cause lasting impacts to the backcountry. Use a lightweight stove for cooking, a candle lantern for light. Use established fire rings, fire pans, or mound fires where fires are permitted. Keep fires small. Only use sticks from the ground that can be broken by hand. Burn all wood and coals to ash and put out all fires completely.

Respect Wildlife

Observe wildlife from a distance. Do not follow or approach them. Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators and other dangers. Protect wildlife and your food by storing rations and trash securely. Control pets at all times or leave them at home. Avoid wildlife during sensitive times because of mating, nesting, raising young, or winter problems.

Be Considerate to Other Visitors

Respect other visitors and protect the quality of their experience.
Be courteous. Yield to other users on the trail. Step to the downhill side of the trail when encountering pack stock. Take breaks and camp away from trails and other visitors.
Let natures' sounds prevail. Avoid loud voices and noises.

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Developing Your Professional Portfolio Based on Eight Core Competencies

Mark Wagstaff, Radford University
Christine Cashel Oklahoma State University
Bruce Martin, University of Northern Colorado

Abstract

Eight core competencies essential to the practice of outdoor leadership were discussed in this workshop. The competencies included: Foundational Knowledge, Self Awareness and Professional Conduct, Decision Making and Judgment, Teaching and Facilitation, Environmental Stewardship, Program Management, Safety and Risk Management, and Technical Ability. These competencies provide the conceptual basis for a new textbook entitled *Outdoor Leadership: Theory and Practice* (Martin, Cashel, Wagstaff & Breunig, 2006). As aspiring professional outdoor leaders develop their portfolios, keeping these core competencies in focus will foster meaningful professional growth and success.

Keywords: Outdoor Leadership, Core Competencies, Outdoor Leadership Development

Introduction

Outdoor professionals and scholars over the past twenty-five years have devoted energy to the identification and development of outdoor leadership competencies (Buell, 1981; Priest, 1984; Priest & Gass, 1997; Raiola 1986; Swiderski, 1981). As the outdoor leadership profession continues to mature, identifying critical core competencies becomes an important factor for novice leaders in training. Defining the core competencies enables leaders in training to devote appropriate time and energy for useful knowledge and skill development. The recognition of core competencies also guides outdoor leadership development programs in the creation of effective curricula. One contemporary approach identifies eight core competencies as the conceptual framework to guide educators and students in their developmental efforts (Martin, Cashel, Wagstaff & Breunig, 2006). These authors have outlined essential competencies that address the multi-faceted nature of outdoor leadership. In this article, the authors will outline and describe the eight core competencies as discussed in their workshop and close with specific issues surrounding outdoor leadership development.

Discussion

Martin, Cashel, Wagstaff, and Breunig (2006) have identified eight core competencies that are essential to the practice of outdoor leadership. These competencies include (1) foundational knowledge, (2) self-awareness and professional conduct, (3) decision-making and judgment, (4) teaching and facilitation, (5) environmental stewardship, (6) program management, (7) safety and risk management, and (8) technical ability. Each of these core competencies is comprised of various elements, the consideration of which will help us to develop a more elaborate picture of the way in which these competencies constitute the

practice of outdoor leadership. Following is a description of the each of the core competencies and the various elements that comprise the competencies:

Foundational knowledge consists of the following elements: sense of purpose, sense of heritage, breadth of the profession, and understanding of leadership theory. Foundational knowledge refers to an understanding of the value of the profession to society. It involves evaluating the profession from historical, philosophical, sociological, psychological, economic, and other perspectives. It involves understanding the various contexts in which outdoor leadership is practiced. And, it involves an understanding of leadership theory.

Self-awareness and professional conduct consists of the following elements: acting mindfully, knowing one's abilities and limitations, knowing how we influence others, and behaving ethically. Self-awareness and professional conduct refers to an understanding of your role as an outdoor leadership professional and your influence on the dynamics of any group.

Decision-making and judgment consists of the following elements: decision-making as a conscious process, role of judgment in decision-making, and available resources in decision-making. Outdoor leaders often find themselves in situations where they are making decisions that greatly affect the welfare and safety of groups with whom they are working. Consequently, decision making as a conscious process, and the use of judgment in situations where outcomes are uncertain is essential to effective outdoor leadership.

Teaching and facilitation consists of the following elements: effective facilitation skills, effective teaching skills, and experiential learning. One of the primary goals of outdoor leadership is to enhance the quality of group and individual experiences in the outdoors. Teaching and facilitation are essential to the fulfillment of this goal. Outdoor leaders place emphasis on teaching experientially.

Environmental stewardship consists of the following elements: environmental ethics, ecological literacy, and parks and protected areas management. Another of the primary goals of outdoor leadership is the preservation and protection of natural areas on which we rely for programming purposes. Having a strong sense of environmental ethics, a high level of ecological literacy, and an understanding of the parks and protected areas management (especially rules and regulations) is essential to fulfilling this goal.

Program management consists of the following elements: planning skills, organizational skills, and management skills. The ability to plan, organize, and implement programs is integral to successful outdoor leadership.

Safety and risk management consists of the following elements: participant safety, preparation and planning, legal aspects of safety and risk management, and assessing abilities and limitations. One of the primary goals of outdoor leadership is to ensure the safety of program participants. This involves adequate preparation and planning, understanding the legal aspects of safety and risk management, and, maybe most importantly, the ability to accurately assess your and your participants' abilities and limitations.

Finally, technical ability consists of the following elements: Proficiency in particular activities, experience-based competency, and professional certifications. The Wilderness Education Association trains leaders to operate within a variety of modes of travel and within a variety of activity types, from sea kayaking and backpacking to ropes courses and rock climbing. Expertise in particular modes of travel or activity types in which you are operating is essential for effective outdoor leadership.

Each of these competencies is considered integral to the practice of outdoor leadership. The process of moving toward mastery in the field of outdoor leadership involves developing expertise in each of these different areas. As noted earlier, the framework of eight core competencies developed by Martin, Cashel, Wagstaff, and Breunig (2006) builds on previous theory and research on core competencies in outdoor leadership.

Conclusion

Understanding the history and theory behind outdoor leadership is essential for effective teaching and facilitation of skills. Knowing "why" our teaching methods are effective and why we need the teaching environments we utilize are central to this applied discipline. Some of the desired outcomes related to using the core competencies are a greater self -awareness related to abilities and limitations of each student. By addressing personal learning styles, learning to make conscious decisions and other activities a student can begin to plan how to build and develop the skills necessary to be an effective outdoor leader. Students may want to begin their outdoor skill building with either land based or water-based activities. Once competencies are being met for entry-level positions the student may then expand into other environments or gain greater expertise (depth) in his/her initial choice. Skills may include obtaining certifications. Documenting experiences is a useful tool and students are encouraged to begin an outdoor resume.

Every person wanting to teach or lead others in the outdoors must begin with basic skills and concepts and build upon them with time and experience. Using the idea of outdoor competencies allows each person to assess their present status and to plan how to develop additional skills over time.

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Lost in Translation:
Linguistic and Cultural Diversity in Outdoor Education

Guan-Jang Wu
Aiko Yoshino

Indiana University

Introduction

The purpose of the workshop was to provide outdoor educators with a better understanding of issues related to linguistic and cultural diversity within the context of the outdoor education field. The workshop introduced a cross-cultural training technique called the Critical Incident Exercise (CIE) and a language simulation, namely, Redundancia. From these interactive and reflective activities, it is the authors' hope that participants gain practical problem-solving and conflict resolution skills that allow each participant to increase his or her cultural awareness and sensitivity. This workshop concluded with the explanation of Iceberg Model of Culture and its applications on outdoor education.

Racial and Linguistic Diversity in the U.S.

The minority groups are estimated to make up 47% of the U.S. population by the year 2050 (Riche, 2000). This dynamic change will have significant impacts on the participant populations in the outdoor recreation and education industry (Gramann & Allison, 1999). The change of racial and linguistic diversity is also happening in higher education in the U.S. For example, the enrollment of international students in the U.S. higher education is now over a half million (Open Doors, 2005). In addition, over a third of California's K-12 public school children speak a language other than English at home (Rumbaut, 1996). These changes will probably have some impacts on the Wilderness Education Association (WEA) because traditionally the WEA has been promoting outdoor leadership through higher education. The authors believe that WEA should play a proactive role in addressing the multicultural issues in outdoor education and help its affiliated programs and outdoor leaders reaching out to the new groups, such as international students and individuals from diverse cultural background by fostering culturally sensitive outdoor leaders.

Critical Incidents Exercise (CIE)

The first activity introduced here is the Critical Incidents Exercise (CIE). This exercise could be incorporated into staff training or group exercise during an outdoor expedition. Historically, the CIE is a tool used by the Peace Corps since 1960s to train volunteers. Currently the CIE has been used widely by all kinds of institutions to train people who live in a foreign country or work with diverse populations (Wight, 1995). The primary purpose of the CIE lies in three areas. One is to increase participants' awareness of their own typical or culturally determined interpretations of other's behavior and their attitudes. The second purpose is to draw out, compare, and analyze the various perceptions of participants.

The third is to clarify cultural differences in the incidents and to motivate them to continue learning.

To begin with this exercise, participants will be introduced to a brief description of situations (critical incidents) in which there is a misunderstanding or conflict arising due to cultural differences. Next, participants will read through the incident and answer the questions individually. It is worth mentioned that the incidents used in this exercise are not fictions but based on actual experiences of outdoor leaders and students.

Sample Incident:
Jose and Maria are Hispanic Americans, in their early twenties, from a Hispanic community in southern California. They received scholarships from a special program to participate in a month-long outdoor leadership expedition. The rest of the group consists of white Americans from the middle and upper class all over the country. The course took place in the Southern Arizona Wilderness. In the beginning of the trip, the instructors intentionally separated them into different tent groups. Later on, Jose requested to stay together and the instructors did rearrange for them.

Jose and Maria were not bonding with the group very well. However this didn't really concern the instructors. Although Maria intentionally separated herself from the group and showed no interests in the outdoors, Jose, on the other hand, was very excited about the expedition especially concerning the natural resources such as local plants and animals.

On the evening of day 7, the group was camping near a lake. The next day was to be re-ration. Jose and Maria told the group that they wished to leave the day after with the re-ration staff. The instructors and the group were all surprised by their decision. After a short talk with them, the instructors decided to let them go.

1. To what extent do you agree or disagree with the instructors?
Totally disagree 1 2 3 4 5 6 7 Totally agree
Why?

2. If you were the instructors, what would you have done?

3. What are the main issues in this incident?

4. How would you feel if you were Jose and Maria?

When participants have read the critical incidents and answered the questions, it's time to discuss each incident within small groups. The following questions can be incorporated in the small group discussion.

- What the problem is.
- Why it is a problem—the real issues involved.
- The extent to which you agree or disagree with the individuals in the incident.
- How you might have prevented this type of problem from happening.
- Policies or practices you might establish to deal with such problems.

Make certain that everyone has a chance to express his/her point of view. It is beneficial to be able to see these problems from various perspectives. There are two key suggestions to make this exercise successful. One is to establish a safe learning environment before starting this discussion - - to develop a setting that participants can freely disagree with others' opinion but in a respectful manner, and also to set up a norm that everyone's opinion will be listened to in the group. The second is to coordinate one or more resource persons from other cultures in each small group to provide different viewpoints during discussions. When the small groups have completed their discussion, the results are shared and discussed by all participants.

Language Simulation: Redundancia

The second experiential activity is called Redundancia. It is a foreign language simulation developed by Nipporica Associates. Redundancia is a fun and powerful "new language" for enabling native English speakers to stand in the shoes of non-native English speakers. Participants experience first-hand, the discomfort, fatigue and frustration due to difficulties connecting with listening or expressing ideas adequately. Participants realize how difficult it can be to establish professional credibility using a second language.

The activity requires a minimum of 30 minutes. The process includes the following steps:

1. Facilitator introduces the objectives and process of the simulation, and teaches the Redundancia language.

2. Participants form triads and take turns as Speaker (talk in the Redundancia language for three minutes nonstop), Listener (be attentive and encouraging), and Observer (watch nonverbal communication).

3. After the simulation, participants take a few moments to reflect, make notes, and share their experience with their partners. The facilitator then leads a large group discussion.

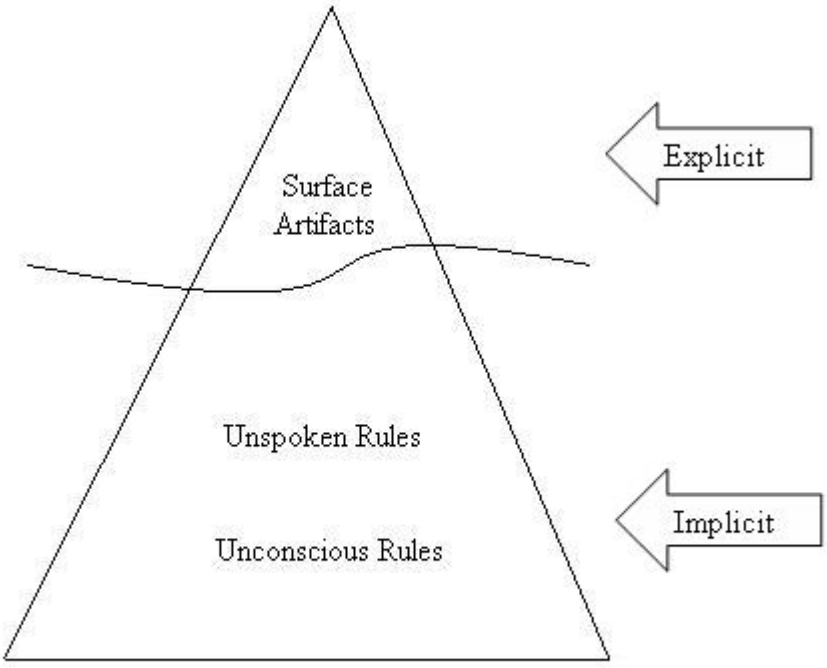
Conclusion

The workshop was concluded with the Iceberg Model of Culture to help participants integrate and consolidate the key learning. This model is often used to illustrate the "hidden" versus "surface" aspects of culture. The Iceberg model is particularly useful because it is a good visual which draws a parallel between culture and an iceberg. In other words, what is above of the water is what we obviously see in a culture, the manifest culture: dress, food, music, art and so on. On the other hand, what is underneath the water is what we do not see,

the core of the culture: values, customs, and assumptions. The Iceberg model implies that the visible parts of culture are just expressions of its invisible parts (the foundations of the culture). In addition, cultural clashes or conflict occur when we are unaware of the differences and interpret behaviors of others based on our own cultural assumptions. The implication for outdoor educators is clear. We need to be aware of our own cultural assumptions and be sensitive to where students are coming from, especially students with different cultural backgrounds. As Wight (1995) reminded us:

> If we do not have sufficient understanding of another culture, we have no choice but to rely on our experience in our own culture to interpret what is happening. However, when we attribute motives, intentions, feelings, reactions, and objectives to the other person on the basis of what is appropriate in our own culture, we may be making a mistake that has serious consequences. It could reduce our effectiveness in the interaction and damage our relations with that person (p.135).

Through the CIE and Redundancia, participants engaged in questioning, clarifying, and elaborating on culturally sensitive issues in a safe environment, and they may challenge their own cultural values as well as their perceptions of other culture. It is our hope that this workshop would help participants communicate more effectively across cultures and minimize mistakes in their respective work settings.



Iceberg Model of Culutre. Adapted from Gardenswartz, Rowe, Digh & Bennett (2003).

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