

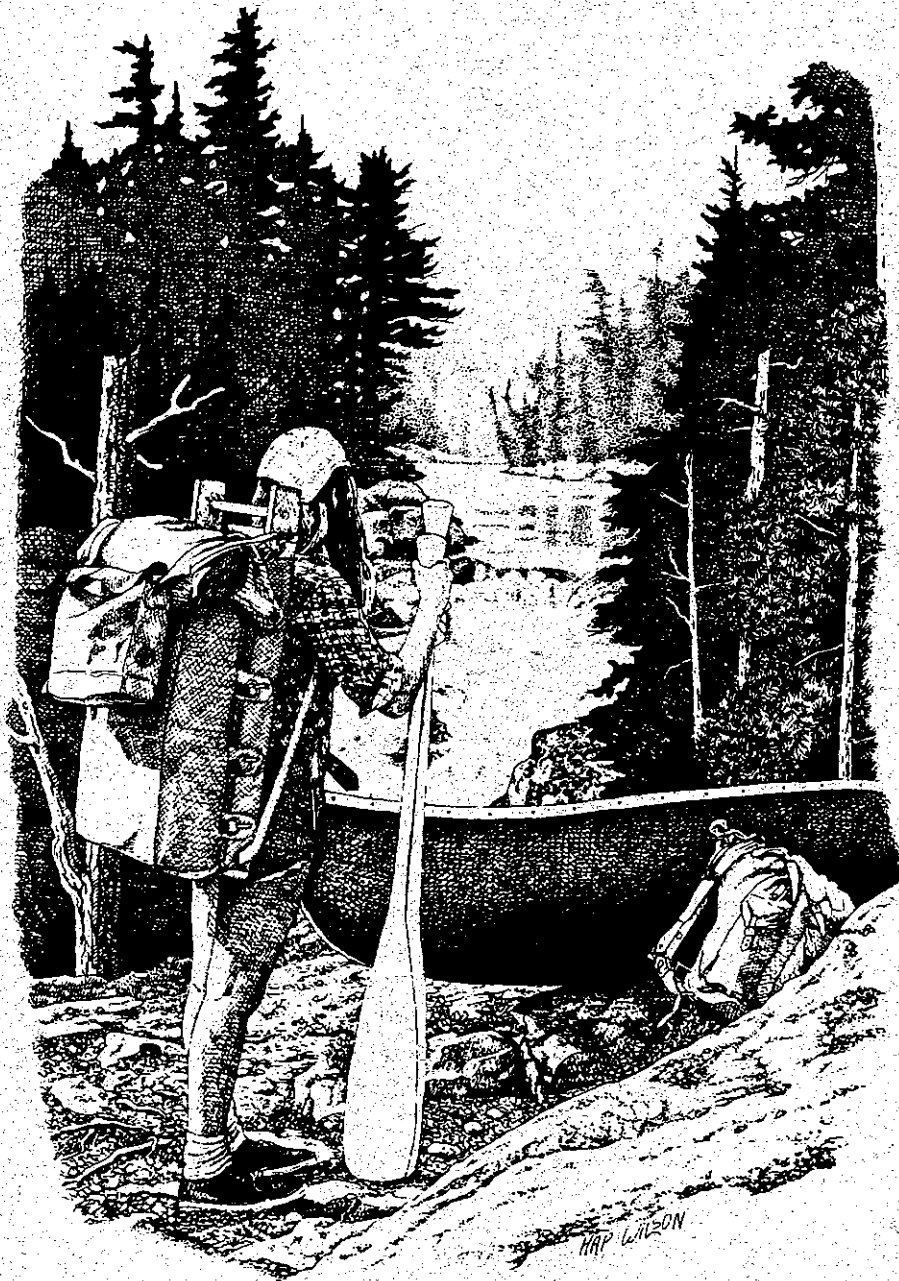
Pathways

Volume 6, No. 1
December, 1993

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

In the woods we return to reason and faith.

— Emerson



Pathways

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Our Apologies

Unfortunately, twice in the article, Wild Words: Nature's Language and Outdoor Education by Mark Meisner (p.8 - last paragraph before the title "Strategies for Changing Language" and p. 10 - top of 2nd column - September/October 1993 issue) the word ecocentric had somehow been changed to egocentric. This is a most unfortunate change, for the words have almost opposite meanings! The mistake certainly speaks to the importance of language. This is not a harmless typo because the argument so well presented by Mark is confused at this point. Needless to say, ecocentric means earth, land, place-centred, while egocentric implies a self-centredness, detached from place. Our apologies to Mark Meisner and all readers.

The Editors

With this issue, we hope to get back on track with a beginning of month release to each issue. With any luck, this Nov/Dec issue will be in your hands by early December.

For 1994/95, we will run a *JUMPING DEADFALL* column for three issues by Dr. Glenda Hanna concerning barriers to implementing outdoor programming. We will print the responses to our retro-perspectives questionnaire from selected C.O.E.O. veterans and reinstate the *EXPLORATIONS* column initiated by Bert Horwood.

We do have concerns. They are as follows:

- 1) membership is down though submissions and interest for *Pathways* is up. *Pathways* is meant to help with membership directly. We have worked directly on this; for example, by sending off extra issues to likely future C.O.E.O. members, and contacting others about C.O.E.O. (*Green Teacher*, *Borealis*, *Kanawa* Magazines).
- 2) We are hearing from many writers outside of C.O.E.O. Our membership still dominates submissions, but recent trends suggest this is changing.
- 3) We are not using *Pathways* enough to tackle difficult C.O.E.O. issues. These include closure of centres, direction of C.O.E.O., approach to conferences and meetings. Perhaps the executive might work with *Pathways* editorial board to ensure pertinent issues are shared via *Pathways* as features. Perhaps we might try an open editorial column to air difficult, important subjects.
- 4) We need your art work. We have been seeking art from sources outside C.O.E.O. membership only because we find ourselves regularly in short supply. Ideally, with a healthy collection of membership art and variety of subjects, we can match art to text for a complimentary package: producing a good feel and look to the journal. Please contact us if you have any questions about art



Events of the last few months have presented some unique challenges to this organization. The fall conference had to be cancelled due to lack of registrations. This was disappointing news because the organizers had put together an interesting diversity of sessions and activities. As part of the conference COEO usually presents awards to members who have made significant contributions to the organization. This year there were no nominations submitted for any of the COEO awards. Another disappointment was that only one nomination was received for a position on the Board of Director.

As a result of the conference cancellation the Annual General meeting was re-scheduled for the weekend of November 19-21 at the Etobicoke Outdoor Education Centre. Thirty-seven members of the organization were able to attend this event. During the meeting active discussions took place on a variety of topics related to the operation of the organization during the past year. The Annual Report is available to any COEO member by contacting the Secretary.

In addition to the AGM all COEO members were invited to attend and afternoon strategic planning session designed to look at areas of concern within the organization. As a result of this session four groups were formed. One group is dealing with the decline in membership, another with Conference '94, a third with political action, and the last with the COEO image. It was a rewarding experience to see people of all ages and from distance parts of the province mix together and going to make plans for future meetings. The enthusiasm in the room and the concern for the future direction of the organization displayed by all of these participants was an uplifting experience.

To me the AGM and the session that followed demonstrated that the members of this organization are concerned about recent events and are willing to do whatever is necessary to keep the spirit of COEO alive and well. To all of those involved in this process, I extend to you sincere thanks for your initiative on behalf of all of the members of COEO. If you would like to learn more about any one of the special working groups or become a member of one contact me anytime. Watch for more in *Pathways*.

At his time Central Region does not have an official Regional Representative. It is imperative to the organization that someone volunteer to take on this role. This person would be responsible for attending from Board of Directors meetings throughout the remainder of this year and for planning events within the region. If you would like more information about this position please contact me immediately.

A short note about membership. All membership applications are sent to the COEO office. Since we do not have a staff member working in the office, the mail room collects all of the COEO correspondence and sends it to me every two weeks. Whenever I receive this mail, I process membership applications as soon as it is possible for me to do so. By the time this process is complete it can easily take up to four weeks for you to receive your new membership from the time you sent in your application. If you have any concern about your membership please feel free to contact me at my home address listed on the inside cover of you issue of *Pathways*. Some members who recently renewed their membership and did not receive a membership card. The reason you did not get one is that since we changed the term of the membership year, our old cards were outdated and we were waiting to get new ones from the printer. They have now arrived, so if you would like a new card just drop me a note in the mail and I will make sure that one is sent out to you as soon as possible.

I would like to extend my most sincere thanks to Judy Halpern, Jim Gear, Paul Higgins and Norah Ledermann for all of their hard work and dedication as their retire as members of the Board of Directors. Their efforts have been an inspiration to all of us.

Finally, I would like to extend a warm COEO welcome to three new members of the Board of Directors; Sandra Appleby (Secretary), Gail Kuder, (Western Region Representative) and Lisa Primavesi (Far North Representative) who will be joining the Board this year.

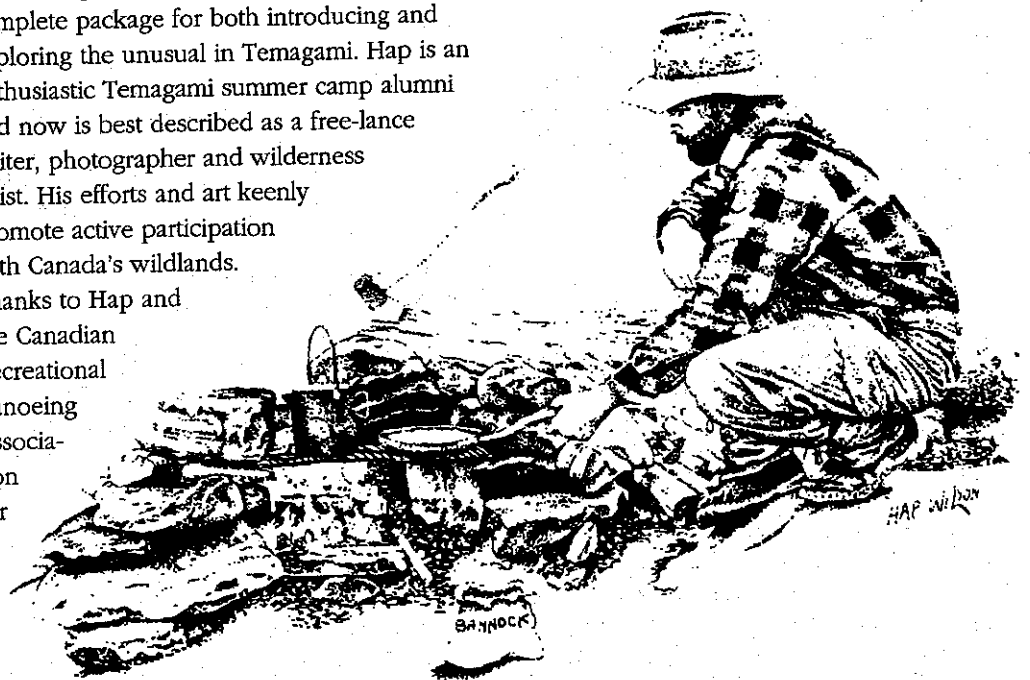
I hope that you all have a safe and happy holiday season.

Glen Hester
COEO President

In this issue, we are pleased to share with you selections from Hap Wilson's artistry used to illustrate his canoeing route guide books. Best known for his energy and work in the Temagami area, Hap has recently published *Rivers of the Upper Ottawa Valley* and is completing a canoeing guide for the Missinaibi River in the James Bay watershed. *Pathways* will review the former guide in the next issue. Also expected soon is *The Temagami Pathfinder*, a personalized account of outfitting, guiding, activism, and folklore concerning the Temagami region. Indeed, Hap Wilson's own story in Temagami travels many paths ripe for reflection.

Temagami is certainly Hap's main stomping ground and his *Temagami Canoe Routes* (revised and updated in 1992) is his first testimony to this fact. This detailed area guide with its general information sections and richly illustrated pages of route description is a complete package for both introducing and exploring the unusual in Temagami. Hap is an enthusiastic Temagami summer camp alumni and now is best described as a free-lance writer, photographer and wilderness artist. His efforts and art keenly promote active participation with Canada's wildlands. Thanks to Hap and the Canadian Recreational Canoeing Association for

their kind permission to use the illustrations within. For more information on ordering Hap's canoeing guides, try your local outdoor gear store or contact the C.R.C.A., 1029 Hyde Park Road, Suite 5, Hyde Park, Ontario N0M 1Z0. Both *The Temagami Pathfinder* and a guide book on the Missinaibi are expected to be available in 1994.



Why Disturb the World Outside?

Bert Horwood

The cartoon character, Sally Brown, reluctantly bouncing on a bus to school camp, cries out, 'Why disturb the world outside?' It's a good question and one which the cartoon strip never answers. There are many possible answers and most outdoor educators are practised at supplying them to suit the circumstances. In this article, I will develop an uncommon answer based on the urgent need for young human beings to experience the wild.

Sally Brown's experience has led her to believe that there are two worlds: one inside and one outside. She doesn't know where her food, shelter, water and air come from. Her previous experiences on field trips and school outings have not educated her to know that the outside-inside distinction is an illusion. She has not been educated deeply to know that acts of life always disturb the world. But her experiences have taught her something which she holds deeply: an aversion to outdoor nature. If Sally Brown was born "a stone age baby," as R.D. Laing claims, then she has already been transformed into a 20th Century alien. To be fully human, and in tune with her world, she must be transformed again.

The thousands of Sally Browns in our schools are what outdoor education is about. There is an urgent need for them to learn to know, love, cherish and obey the natural world of which they are, willy nilly, a part. Education, here, is more than knowing "about." It includes the intellectual aspects of learning (knowing), the emotional aspects of learning (loving), and the actions resulting from complete education (cherishing and obeying).

Outdoor education is the only means by which people can recover their stone age identity; it is the only way by which people can discover that they are wild life, no different in the basics of life from wombats and gum trees. Indoor education can not possibly

touch this central part of being human.

What does it mean to be wild? English speakers use the word "wild" in various ways. Wild has suggestions of lawlessness ("She's a wild one, she is") and of freedom from constraint and responsibility ("The call of the wild"). Wild also carries a negative meaning: the lack of order, domestication and civilization, ("The rain forest is a wild tangle of vegetation.") But wild animals and plants are not lawless; they obey natural laws which we can grasp dimly in the study of natural science, particularly ecology. Wild plants and animals are not free of the controls and constraints which make the biosphere work. Animals are not free from predators, plants are not free from fire and blood; all obey the laws of life and death, eat and be eaten.

In terms of human beings, the earliest records and stories show that our distant wild ancestors were subject to stringent natural and cultural laws. The modern Western interpretation of "wild" as "lawless" is based on false belief that the further one lived from nature the more superior one was. It was, and still is, a virtue to be a city person (from Latin, "civilized"), to be alienated from one's wild nature. That is Sally Brown's state.

I think that wild means limited freedom, the freedom to be true to yourself. A wild apple tree is free to be the quintessential apple tree, gnarled, twisted, unpruned. A wild gorilla acts out the true nature of gorillas. This contrasts with the gorilla in a zoo which is not free to be fully gorilla, being forced by fences and artificial environment to depend on others to supply food, shelter and society.

There are disadvantages to being wild. Life can be short and tragic for wild things. To be fully an apple tree, or fully a gorilla brings with it risks and uncertainties. The same is true for humans who get in touch with their intrinsic wildness. Yet, because wildness acknowledges the way the world actually

I think that wild means limited freedom, the freedom to be true to yourself.

When humans learn (or relearn) how to be wild, we learn how to become fully human within the framework of the laws of nature and within the limits of our humanity.

What do outdoor education programmes look like when they undertake to bring alienated youth into touch with their own wild natures?

works, being wild leads to living, and dieing, in harmony with the natural way. The natural way is what Warwick Fox calls "The Way of Earthly Wisdom," the only way that the biosphere can operate to sustain itself and renew itself for thousands and thousands of years.

That's all very well for apples and gorillas, but where do humans fit in? It is a mistake to deny our animal nature and our position on the earth as one of millions of wild species. We humans have the same heads, hands and hearts as our original ancient ancestors. We emerged as a part of the world and for most of our story, we lived in long-term harmony with it. It is only recently that the combination of numbers and undisciplined greed have led us to alienation and departure from the natural way. The important point is that laughter, artistry, loving...all the happy aspects of being human were known to our early ancestors and are fully compatible with rediscovery of our wild state.

When humans learn (or relearn) how to be wild, we learn how to become fully human within the framework of the laws of nature and within the limits of our humanity. We find out who we are, in a profound way; we develop supportable, sustainable beliefs about how we came to be here; we find out what our path in life is in harmony with the rest of nature. This should be seen as a step forward, not a regression into a dark and dirty past. Outdoor education is the only part of the education systems that has potential to teach large numbers of young folk these critical lessons.

What do outdoor education programmes look like when they undertake to bring alienated youth into touch with their own wild natures? There are four major features of such programmes: I call them earthlinks, stories, wonder, and personal identification. Each will be considered briefly.

Earthlinks are programme components that drive students to experience direct, intimate links with their surroundings. Many students think that food originates in cans and

packets. Earthlink components have students work with their own food from the earliest possible link in the chain. They dig their own potatoes, pick their own fruit, bake their own bread, even kill their own meat. How can anyone understand the nature of their own life if they do not understand and honour the blood that is shed for a meal? As Gary Snider says, "First you pray to it, then you kill it, then you eat it." At an easier level, students (at the least) know that what we call "ham" is salted and smoked pig muscle, and know and appreciate the labour involved in preparing our own food.

Food and feeding is only one example of earthlinks possible to explore in outdoor education. The source of water, and the energy needed to move it from place to place, can be directly experienced by children. But full appreciation of our linkages with water would require that students also experience where the used water goes. It is trivial to merely state that every thing is connected to everything else, but to live the reality of the connections gives an entirely different order of understanding.

In general, earthlinks are present in a programme whenever students experience directly the fullest possible answer to the questions "Where does it come from? Where does it go to?" Earthlinks are the complete technology of the daily business of living.

Stories are the descriptions and explanations we give of the world around us. They are always based on observation, the more acute the better. Nowadays, we call the ancient stories myths. Our modern stories we call science. I lump them together because, whether ancient or modern, stories give us our images of the world and our place in it. Science, when experienced as story emerging imaginatively out of painstaking observation, provides powerful evidence of our harmonious place in nature and of our kinship with other living things. In this context, science in the outdoor education curriculum is not a way of detaching ourselves from the world, but rather is an important way to connect more deeply.

In general, stories are present in a programme when the work of observation and explanation is set in a story context about the way the world is and about our place within it. Alternative stories are often told and always respected.

Wonder is a subtle programme element which is difficult to achieve and sometimes even more difficult to justify to hard-nosed authorities. Wonder is closely related to what Steve van Matre calls "magic" in Earth Education materials. It refers to that feeling of marvel, even awe, which every person experiences when they encounter the surprise and delight of life beyond themselves. Charity James, a little-known English educator, calls this appreciative and non-exploitive encounter with things "dialogue." Silence and solitude are essential for wonder to be present in outdoor education: Dialogue with tree ferns calls for freedom from all distractions. Students spend time alone surrounded by the natural wild. The duration and frequency of the experience is adjusted to the age and readiness of the children.

In general, wonder is present in programmes when students feel a kind of gentle astonishment at being alive and at feeling related to their environment. Wonder always takes time to achieve.

Personal identification flows from the previous three elements. It refers to expanding your sense of self beyond the limits of your skin. Personal identification means that a person recognizes that nearby parts of the world, previously perceived as "outside", are in fact a part of one's self. Personal identification is more a journey than a destination. It is enough that students begin to have such perceptions in a small way, know how to continue their practise and have the will to do so. It is impossible for a person who is developing personal identification to be alienated. When Sally Brown begins this process, she will become eager to be outdoors.

It is essential that all four elements be present in outdoor education. One, or other alone only worsens the alienation. Earthlinks

alone makes exploiters, hit and grab artists. Science alone makes smarter and smarter polluters. Wonder alone makes helpless mystics who gaze at their navels while the living world whimpers into destruction around them. Personal identification is impossible without support from the other elements.

Why disturb the world outside? Because the world outside is the same as the world inside and you are it. Going away from cities and towns is the only way to find this out.

Bibliography

Fox, W., (1990). *Towards a Transpersonal Ecology*. Boston, MA., Shambala Publications Inc.

James, C., (1986). *Young Lives at Stake. A Reappraisal of Secondary Schools*. London, Collins.

Laing, R.D., (1967). *The Politics of Experience and the Bird of Paradise*. London, Penguin Books.

Snyder, G., (1977). *The Old Ways*. San Francisco, City Lights Bookstore.

Van Matre, S., (1990). *Earth Education: A New Beginning*. Warrenville, IL., Institute of Earth Education.

Bert Horwood is a Canadian outdoor educator who has just finished a 6 month visit in Victoria, Australia. He has recently retired from Queen's University, in Kingston, Ontario, Canada and continues to be active as an independent outdoor educator.

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Personal identification means that a person recognizes that nearby parts of the world, previously perceived as "outside" are in fact a part of one's self

Socio-psychological Theories of Outdoor Adventure

Karen Short and Simon Priest

Motivation

In order to be more effective in the delivery of outdoor adventure programs, leaders or facilitators need to better understand human behaviour during these experiences. This article presents some of the social psychology theories which have contributed to the present body of knowledge regarding human motivation in adventure experiences. This article outlines the evolution of these theories, culminating in a model which explains the relationship between risk and competence. Examples from common outdoor activities are included, along with suggestions for instructors to practice with students.

To begin, the uninitiated public often ask WHY? Why would anyone in their right mind climb a mountain, paddle a river, descend a ski slope or jump out of an airplane? Mallory's historic answer "because it's there!" was made in reference to his intended ascent of Everest over 50 years ago, and sheds little light on what motivates people to take risks in the first place. The idea that some of us are "adrenalin junkies" and are somehow addicted to thrill-seeking, may seem somewhat humourous at first, but on closer inspection, new physiology studies suggest this may be close to the truth.

Endorphins are hormone-like chemicals released into the blood stream during times of stress. Their chemical structure resembles narcotic compounds, like Opium, and they have similar effects on the nervous system, but without the negative side effects which often accompany illicit drugs. The well-known "runner's high" which dulls sensations of pain and provides feelings of limitless strength or endurance to marathoners is just one example of endorphins in action.

Research into endorphin secretion in humans implies that our lives as cave people

were full of adventures and so we have evolved as a species which desires endorphin releasing activities. The runner who gets hooked on exercise, and then feels ill without the daily jog, is an illustration of a gentle withdrawal symptom experienced by people who enjoy regular endorphin release. In short, humans have a need for a certain amount of stress in their lives to maintain a level of endorphin secretion we have come to expect: we are a race of endorphin (rather than adrenalin) junkies. Some of us have enough stress in our daily living and so do not feel the need to look for more; others have greater needs and often fulfill their desires through the conscious seeking of stimulation via risk-taking adventures. This explanation of motivation is based in human physiology. The theories which follow examine the social psychology of adventure.

Optimal Arousal

In the book, *Why People Play*, Ellis (1973) discusses his optimal arousal theory of play behaviour and asserts that the human brain is a continually active organ in need of ongoing stimulation. Deprived of external stimulation, such as during sleep, the brain manufactures its own arousal, in the form of dreams. This optimal behaviour is easily observed in children (and most of Ellis' work was conducted in the children's play laboratories of Illinois University), where without external stimulation from a parent or friend, they will seek their own arousal in the form of imagined or self-play. Since adventure is a form of adult play (Carpenter & Priest, 1989), the optimal arousal theory has application to more than just children.

If one considers the level of arousal to be related to the amount of information being



received by the brain, then the more information received in a set period of time, the higher the arousal; and the less information coming in, the lower the arousal. People may be over or under aroused by the conditions around them and the levels of arousal will differ for various people. A unique level of "optimal arousal" exists for each individual. Ellis determined that this is the point at which performance of a task is maximal. By way of illustration, consider writing a test under varying noises. In a perfectly quiet room, one is distracted by lack of noise (under aroused) and performs poorly on the test. In a loud room, one also performs poorly due to interference with concentration (over aroused). For each person, a perfect noise level exists (optimal arousal) at which he/she will do his/her best on the test (maximal performance).

The unique point to Ellis' theory of play behaviour is that people like to perform their best at many things and so will purposefully seek out conditions which produce a state of optimal arousal. Since adventure is considered adult play, this theory of sensation seeking (Zuckerman, 1979) has been adopted to explain why people test and push their limits by taking risks.

A practical example applying this theory might involve a mountaineer who is climbing an easy route and is so under aroused to the extent that performance drops off, or is climbing a difficult route and is over aroused with similar decrease in performance. Every mountaineer knows and seeks that particular level of difficulty, which is optimally arousing and provides for the highest performance.

Flow State

Csikszentmihalyi (1975) wrote a book entitled *Beyond Boredom and Anxiety* in which he observed and interviewed a wide cross-section of the public including chess players, poets, dancers, surgeons, and rock climbers. All subjects of his inquiry related similar experiences, which he termed states of flow.

"Flow describes a state of experience that is engrossing, intrinsically rewarding and outside the parameters of worry and boredom" (Csikszentmihalyi and Csikszentmihalyi, 1991, p. 150). Studies on flow suggest that people are motivated to participate in outdoor adventures because of the intrinsic feelings of enjoyment, well-being and competence they achieve from the experience. These positive effects are the reasons people return to adventures in an effort to recapture the feelings.

Csikszentmihalyi and Csikszentmihalyi (1991) outline six characteristics that make the flow-producing experience worthy of repetition to the participant. First, people experiencing flow clearly know the goals they are trying to achieve, and get immediate feedback about how they are doing. Second, action and awareness merge, as participants see themselves fully engrossed in the activity with pure uninterrupted concentration. Third, this merging is made possible by the participants centering on a limited stimulus field, where possible interruptions and unimportant information are consciously screened out. Fourth, participants experience self-forgetfulness by losing touch with physical reality or by gaining a heightened awareness of their inner workings. Fifth, a feeling of control over personal actions and the environment is enjoyed, where an awareness of control may be present or a worry over lack of control may be absent. Sixth, the flow experience is autotelic: so enjoyable that the participant desires to repeat the activities in hopes of reproducing a state of flow, regardless of the reasons for first trying the activity.

Flow can only be experienced when the situational opportunity to take action is balanced with the participant's capability to act. Consider this example from canoe paddling. An expert paddler has high capability to perform, while a novice paddler has low capability. Flatwater provides little opportunity to perform, while difficult whitewater provides plenty of opportunity. If the expert paddler is placed on flatwater, then a feeling of boredom

*Every
mountaineer
knows and seeks
that particular
level of
difficulty, which
is optimally
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highest
performance.*

adventures are experienced differently by different people: adventures are a state of mind.

(like under-arousal) is experienced since the capability to act exceeds the opportunity. On the other hand, if the novice is placed in whitewater, then a feeling of anxiety (over-arousal) is experienced since the opportunity far outweighs the capability.

However, Csikszentmihalyi (1975) felt that the flow state existed beyond boredom and anxiety, where opportunity and capability were balanced or matched, and where the six characteristics resulted under conditions of optimal arousal. For example, the novice on flatwater and the expert in whitewater would each be able to experience flow, provided capability was roughly equivalent to opportunity.

Antecedents of Adventure

Mitchell (1983) criticized Csikszentmihalyi's theory, by noting the lack of important antecedents which led up to the experience of flow. In his book on the *(Sociology and Psychology of Adventure)*, he proposed several elements which "constitute and potentiate the flow experience" (Mitchell, 1983, p. 154). These included: freedom of choice, state of mind, intrinsic motivation, outcome uncertainty, competence engagement.

Mitchell (1983) suggested that "flow occurs in the process of creativity" (p. 154), and in order for an adventure experience to offer creativity, it must be completely voluntary to the individual. This is why ethical adventure programs operate under Rohnke's (1989) axiom of "Challenge by Choice," where no one is ever coerced into participating in a risk-taking experience.

Furthermore, adventures are individually specific, because each person brings his or her own level of competence to the experience, and situationally specific, because each setting has a different level of inherent risk. As a result, adventures are experienced differently by different people; adventures are a state of mind.

People initially engage in adventure for a

variety of reasons. Nevertheless, those motivated by intrinsic reasons (such as joy, happiness, independence and self-development) will continue their participation. People genuinely enter into adventure experiences for internal reasons; very rarely do they seek extrinsic rewards like status or money.

Too much uncertainty of outcome is over stimulating, while too little is under stimulating. Thus, unattainable goals could produce panic (due to anxiety) in a participant and too easily achieved goals could lead to complacency (due to boredom). Neither situation will result in flow. To make the best of an adventure experience, participants must feel challenged, yet in control of their situation. If a facilitator or friend were to give away answers or rescue a participant with solutions to a problem, the amount of uncertainty would change and the experience would be altered (Goffman, 1981). Except in situations of safety, ethical adventure programs avoid helping the participant too much.

Stages of Adventure

After 20 years' experience in observing and interviewing participants in outdoor adventures, Mortlock (1984) proposed four broad stages to be present in any outdoor journey: play, adventure, frontier adventure, and misadventure.

According to Mortlock, the participants involved can be considered to be in any one of the four stages at any time in their journey, whether they are a beginner or an expert, depending on the amount of fear present in the activity. Play is characterized by the absence of fear. The experience can be described from pleasant or fun to boring or a waste of time. Adventure is characterized by some fear being present. Participants in the adventure stage are in total control of the situation, but are being challenged to some extent. Frontier adventure involves lots of fear. In frontier adventure a participant is experiencing risk of physical harm and no longer feels

in complete control. Misadventure encompasses too much fear and results in failure to succeed. The outcome of misadventure may be as simple as personal dissatisfaction, or as serious as psychological damage. Participants may receive a bruised ego, scrapes, and splinters (all acceptable and recoverable) or may receive fractures, emotional breakdown or even death (all unacceptable and non-recoverable). Mortlock reserved play as the place to learn new skills. He felt that adventure and especially frontier adventure must be strived for in an outdoor experience, as these make life worth living. Lastly, the condition of misadventure was where people learned best from their mistakes, provided they were not permanently injured.

The Adventure Experience Paradigm

Martin and Priest (1986) combined the ideas from the four works mentioned earlier, and developed their own model: the Adventure Experience Paradigm. The adventure experience paradigm explains participants' behaviour based on the variables of risk and

competence. They define risk as the potential to lose something of value, whereas competence is the capability of individuals to deal effectively with the demands placed on them by their surrounding environment.

The interaction of risk and competence creates challenge. No challenge can exist without the presents of both situational risk and personal competence engaged in an effort to resolve the uncertainty. Depending on the amount of risk and amount of competence blended together in an adventure experience, five conditions of challenge are possible. Figure 1 below shows the graphic relationship of risk and competence combined in varying degrees to give different challenges.

From the model the influences of Csikszentmihalyi and Mortlock are notable. Risk and competence are substituted for opportunity to act and capability to take action. The four stages of an outdoor journey are expanded to five conditions of challenge: exploration and experimentation, adventure, peak adventure, misadventure, devastation and disaster (Priest & Braille, 1987).

This diagram demonstrates that when a person with high competence performs a low risk activity the result is a condition of exploration and experimentation, likened to

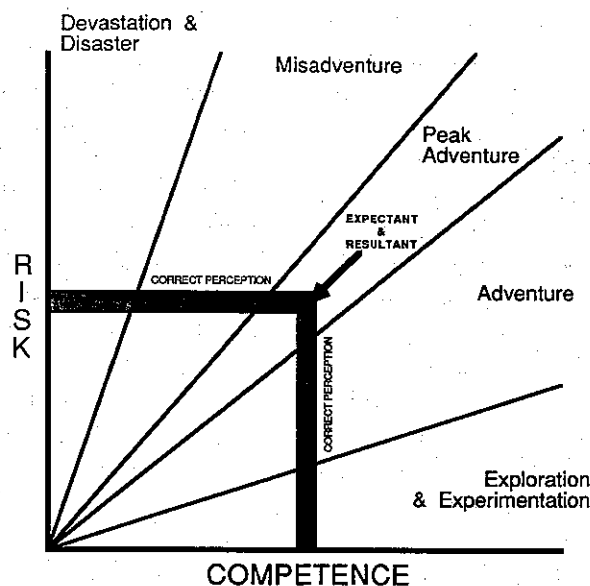


FIGURE 1: The Adventure Experience Paradigm
©1985 by Simon Priest & Peter Martin

The arrogant and fearless individual under perceives the risk of the activity and over perceives his/her competence to perform it.

Mortlock's play stage where new skills are learned, tested and honed. As competence decreases and/or risk increases, that person moves into the adventure. When the two components are balanced and matched, a condition of peak adventure likened to Csikszentmihalyi's state of flow, results. As risk exceeds competence, the potential for misadventure arises and when risk becomes very high and competence is very low, devastation and disaster may occur.

Consider the average skiers at the start of their ski season. They begin on the gentle "bunny hills" where the risk of falling is minimal and their competence to ski is maximal. This is exploration and experimentation, where the skiers can practice their turns and stops and gain confidence. When ready, they move out on to green dot (easy and beginner) runs where the risk of falling increase and perhaps their skiing competence decreases. This is adventure, where they work harder at skiing and feel more challenged. On the blue square (moderate and intermediate) runs, they find peak adventure, where their competence to ski is perfectly balanced with the risk of falling and they feel "on the razor's edge" as they descend the slope, uncertain whether they will be successful in the product, but confident they will do their best in the process. The black diamond (difficult and expert) runs provide a little misadventure for these average skiers, because the risk of falling outweighs their competence to ski at this advanced level. When they fall, they consider it to be a minor mishap from which they can recover. They may be bruised, embarrassed, and covered in snow, but they will not suffer permanent damage. Devastation and disaster equates with the out-of-bounds areas: the back gullies and avalanche slopes, where a fall means a broken limb, or worse yet, death! Obviously ethical adventure programs deal in the conditions up to and including misadventure, because people learn well from their mistakes. Devastation and disaster are not a purposeful part of ethical adventure programs.

Martin and Priest proposed that the goal

of an outdoor adventure experience for an individual was to reach peak adventure as per Ellis' (1973) concepts of seeking optimal arousal, since this was where one could experience flow and get the euphoric feeling from endorphin release. However, "the key to application of the adventure experience paradigm lies in the perceptions of the individual" (Martin & Priest, 1986, p. 19). Individuals can misperceive both the real risk and their real competence and as a result over-shoot or fall short of their peak adventure goal.

Martin and Priest described nine types of individuals with respect to the various combinations of misperceptions. Three types are of greatest interest: the astute individual, the timid and fearful individual, and the arrogant and fearless individual. The astute individual correctly perceives the level of risk as well as correctly perceiving his/her competence to perform the activity and will likely reach peak adventure. The timid and fearful individual over perceives the risk of the activity and under perceives his/her competence to perform it. Since real risk is actually lower and real competence is actually higher, the individual will fall short of peak adventure and perhaps drop out into exploration and experimentation. The arrogant and fearless individual under perceives the risk of the activity and over perceives his/her competence to perform it. Since real risk is actually higher and real competence is actually lower, the individual will over-shoot peak adventure and perhaps fall into devastation and disaster. Figures 2 and 3 below, portray these profiles.

Priest and Baillie (1987) discussed the application of the adventure experience paradigm to outdoor learning supervised by facilitators. They stated that the goal of an outdoor adventure facilitator is to guide the timid and fearful or the arrogant and fearless participant toward becoming astute. According to the model, the way to accomplish this is to present tasks which have the appearance of being difficult for the timid and fearful (while assuring success) and easy for the arrogant and fearless (while setting up for a failure). In

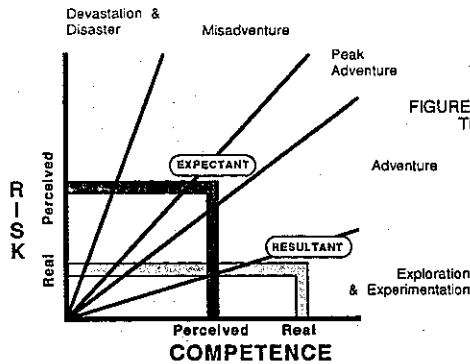


FIGURE 2: Profile of the Timid and Fearful Individual

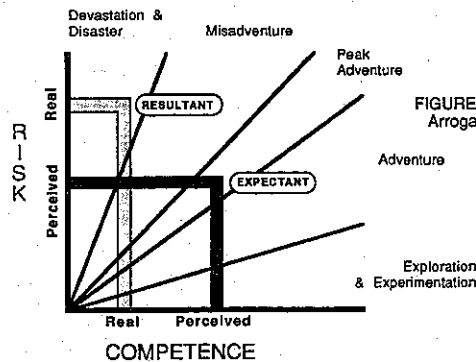


FIGURE 3: Profile of the Arrogant and Fearless Individual

The debrief helps guide their reflection on past experiences and allows them to re-assess their perceptions of the risk and competence from their previous attempts.

essence, the innate desire to seek peak adventure is being distorted by the facilitator. The timid and fearful person expects a potential misadventure, while the arrogant and fearless person expects only an adventure. In reality, what results is quite different, due to their opposite misperceptions. Once again, since real risk is actually lower and real competence is actually higher, the timid and fearful person will fall short of their expected misadventure and will drop out into adventure. On the other hand, since real risk is actually higher and real competence is actually lower, the arrogant and fearless person will over shoot adventure and fall into misadventure. Figures 4 through 7 below, demonstrate these arrangements.

Ethical adventure programs debrief both individuals' experience, perhaps alone and then within a group. The debrief helps guide their reflection on past experiences and allows them to re-assess their perceptions of the risk and competence from their previous attempts. As they come to realize, accept and change their shortcomings, their perception moves closer to reality and they eventually become astute (Carpenter & Priest, 1989).

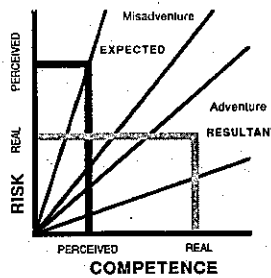


Figure 4: Before the facilitated adventure experience for the timid & fearful participant

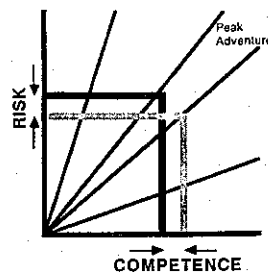


Figure 5: After the facilitated adventure experience for the timid & fearful participant

By setting their own goals, participants will have a greater level of commitment to the task.

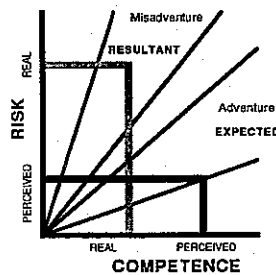


Figure 6: Before the facilitated adventure experience for the arrogant & fearless participant

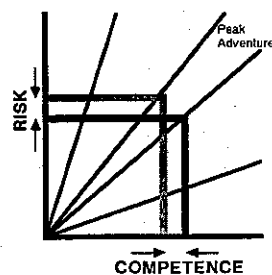


Figure 7: After the facilitated adventure experience for the arrogant & fearless participant

Expectancy and Goal Theory

The facilitator's ability to manipulate the risk and competence variables of an adventure experience is heavily dependent on expectancy motivation. Two theories characterized as endogenous (motivated for intrinsic reasons) are expectancy theory and goal theory.

Expectancy theory takes into account three determinants that motivate people; first, whether their efforts will lead to performance ("Can I do it?"); second, what outcomes are involved ("What is in it for me?"); and third, the value of those outcomes ("Is it worth it?"). People are motivated when they expect that effort will result in good performance, which will in turn be useful in attaining valued outcomes (Katzel & Thompson, 1990).

Expectancy theory has useful application to outdoor programs as it can help to define

exactly how an individual can be motivated toward peak adventure. Participants provided with sufficient training, emotional support, proper resources, and understanding of benefits will feel more confident toward accomplishing a task. This confidence reduces their anxieties and enhances perceived competence, allowing them to tackle greater risks.

Goal theory states that performance is determined by commitment to goals. These goals may be self-established or dictated by others. Participants who are committed to specific and well-defined goals will perform at higher levels of competence than those who set general or vague goals (Katzell & Thompson, 1990). Therefore, helping participants to set their own goals, that require concentrated effort to attain, is an excellent motivational technique permitting challenge by choice. By setting their own goals, participants will have a greater level of commitment to the task.

Conclusion

This article has reviewed several of the current socio-psychological theories related to adventure education. Physiological studies have shown that the release of pleasure-inducing hormones is a driving force behind participation in adventure experiences. Play behaviour research has explained the human search for optimal arousal. Ongoing investigations have described the existence of a flow state in human beings. Popular writers have listed the antecedents and stages of adventure. Lastly, the paradigm described here, based on these earlier works, has taken a large step forward to explaining human behaviour in risk-taking situations, with some suggestions how the facilitator of outdoor adventures can apply their efforts to modify experiences for the positive benefit of others. In conclusion, understanding and applying these theories and the related examples will help to make the delivery of outdoor adventure programs safer, more effective and life enhancing for participants.

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References

- Carpenter, G. & Priest, S. (1989) The Adventure Experience Paradigm and Non-outdoor Leisure Pursuits. *Leisure Studies*, 8(1), 65-75.
- Csikszentmihalyi, M. (1975) *Beyond Boredom and Anxiety*, Jossey-Bass, San Francisco.
- Csikszentmihalyi, M. & Csikszentmihalyi, I.S. (1991). Adventure and the Flow Experience. In J. C. Miles and S. Priest (Eds.), *Adventure Education*. (pp. 149-155). State College, PA: Venture.
- Ellis, M.J. (1973) *Why People Play*, Prentice-Hall, Englewood Cliffs.
- Goffman, E. (1981). Fun in games. In M. Marie-Hart and S. Birrell (Eds.), *Sport in the socio-cultural process*. (pp. 40-91). Iowa: William C. Brown Publishers.
- Katzell, R. & Thompson, D.E. (1990). Work motivation: Theory and practice. *American Psychologist*, 45(2), 144-153.
- Martin, P. & Priest, S. (1986) Understanding the adventure experience. *Journal of Adventure Education*, 3(1), 18-21.
- Mitchell, R.G. (1983) *Mountain Experience: The psychology and sociology of adventure*, University of Chicago Press, Chicago.
- Mortlock, C. (1984) *The Adventure Alternative*, Cicerone Press, Cumbria.
- Rohnke, K. (1989) *Cowstails and Cobras II*. Dubuque, Iowa: Kendall/Hunt.
- Priest, S. & Baillie, R. (1987) Justifying the Risk to Others: The real razor's edge. *Journal of Experiential Education*, 10(1), 16-22.
- Zuckerman, M. (1979). *Sensation Seeking: Beyond the optimal level of arousal*. Hillsdale, NJ: Lawrence Erlbaum Associates.



Outdoor Education Centres: Is Science Happening Here?

Mark Morris

The relationship between outdoor education and curriculum subjects has long been an uneasy one. Outdoor education prefers to be viewed as a philosophy or a methodology (Whitcombe 1991a) that transcends traditional curriculum boundaries and can be applied to virtually any subject (Ingleton 1991). Nevertheless, *science* is usually viewed as a school subject that can be effectively taught at outdoor education centres, partly because many science topics pertain to natural phenomena. In this article, I would like to explore the role of outdoor education in science curriculum development and delivery.

Science Learning Objectives in the Curriculum

Before we can reasonably examine the state of science in outdoor education, perhaps we need to look at the learning objectives of science in Ontario. With the increasing importance of environmental, scientific and technological literacy, the Ontario Ministry of Education (1986-1988) and many school boards have recently produced a variety of curriculum resource documents and guidelines in support of science education from the primary to senior levels.

Many of the primary-junior science learning opportunities outlined in the Ontario Ministry of Education's *Science Is Happening Here* (1988) can be learned, practiced and enhanced by activities at outdoor education centres. Important scientific **skills** like Observing, Classifying, Measuring, Inferring, and Interpreting, **attitudes** like Concern and Care for the Environment and Respect for Living Things and **knowledge** of Community, Life, Change, Conservation and Interrelationships are, or should be, a part of many outdoor centres' programs.

In grades seven and eight, a number of the core science units of study, including Characteristics and Classification of Living Things, Plants in Our Lives, and Soil and Plant Ecology, could be complemented during visits to an outdoor education centre.

The Ontario Ministry of Education (1987) recognizes 11 aims of their secondary school science curriculum. Some of the most relevant to outdoor education include: "1. an understanding of the processes of science," "2. skills that are essential for participation in scientific work ...," "3. facility in problem solving through science," "6. an understanding of the nature of science as a human endeavor."

These learning objectives can give outdoor educators some goals towards which an outdoor science program can be built and directed. As well, the instructional mandate of many outdoor education centres is to complement and support the classroom curriculum. Problem-solving has recently been recognized as a vital science and employment skill, one which is currently emphasized in all school levels. Outdoor educators can work towards developing confident and resourceful young people who can find solutions to a range of problems.

A Brief View of Science

Outdoor educators need to be able to make the distinction between science as a school subject and science as an intellectual pursuit. For example, Isaac Asimov (1983) contended that science was a *process*: "a way of thinking, a manner of approaching and of possibly resolving problems", rather than just a collection of facts, explanations, or theories. To use the process of science, students are taught the 'scientific method,' a fairly rigorous

and recognized sequence of steps involving observation, speculation, and reasoning. Modern science now often short-circuits this process, but scientist Robert Riecklefs (1973: 5) claims that scientific inquiry was nothing less than "one of the integral features in the development of civilization." Raffan (1990) cautioned that conventional science has had very little influence on some people who have taken great risks for the environment. Asimov (1983) further contended: "Science does not promise absolute truth, nor does it consider that such a thing necessarily exists. Science deals only with those portions and conditions of the Universe that can be reasonably observed and for which the tools it uses are adequate."

An interesting alternative view, recently proposed by Vahey (1992), sees science as making us into "unimaginative and unconcerned robots." Vahey also claims that science regards much of the natural world as 'inanimate, unfeeling and separate from human beings.' By ignoring 'why' questions or by responding to them with 'how' answers, educators deny the allure of mystery and can create "a lack of harmony between us and the cosmos." Vahey wants outdoor educators to encourage 'why' questions to foster students' desire to explore the mysteries of nature.

Fortunately, there is plenty of room for a variety of views of science. It is more important that outdoor educators recognize this diversity of views and start to develop a personal philosophy and understanding of science. The ongoing dialogue on science education will benefit from informed input from outdoor educators.

The Outdoor Education - Science Connection

Outdoor education centres have certain unique attributes that can help educators achieve their science objectives. The availability of qualified staff and organizational features like accommodation, catering and programme

facilities are all positive factors (Hayllar 1990). They can provide students with what Tamir (1991) called "informal learning situations" and locations that can foster the senses of wonder, mystery, curiosity, discovery and genuine appreciation that can be so important to the development of science.

Smith *et al.* (1972) suggested that most science fields may be enriched through "carefully selected outdoor experiences." A variety of scientific phenomena that had previously been just paragraphs in textbooks or photographs can come to life during a visit to a pond, a stream or a forest. Bough (1972) believed that the outdoor environment is teeming with materials and phenomena that lend themselves to use by the learners', and that the learners' motivation and enthusiasm is easily generated.

The value of outdoor and experiential science experiences has been suggested by Bowyer (1990) and Shikaze (1991). Shikaze provided some useful guidelines for effective environmental science, including a variety of outdoor sessions that provide time for students to explore at their own level, with an emphasis on important ecological concepts.

Some outdoor educators believe that it's not the role of outdoor education to teach 'real' science. In Moore's (1992) view of the outdoor curriculum, "who cares how deep the pond is or how many trees there are ... ?" Moore suggests that outdoor educators should "Teach them (students) to have fun in the outdoors and they will want to protect and nurture it." Shikaze (1991) also recognized the importance of appreciation as an "essential step" to inspire appropriate environmental action. This environmental appreciation can also be effective in developing more positive attitudes towards science, in effect "turning students on to science." Outdoor educators who strongly support this particular view need to further emphasize and document how such an approach can enhance and supplement the in-class science curriculum and/or contribute significantly to the broader goals of science education.

Outdoor educators have to realize that the benefits of an outdoor experience that seem so self-evident still need to be convincingly demonstrated to others.

Bowyer (1990) pointed out the lack of empirical evidence to support the benefits of outdoor education. However, as outdoor education centres face the looming spectre of budget restrictions, outdoor educators are frequently being asked to specify how their programs support the boards of education's stated learning objectives and their current curriculum initiatives and demonstrate their programs' effectiveness. Outdoor educators have to realize that the benefits of an outdoor experience that seem so self-evident still need to be convincingly demonstrated to others. Although a number of graduate theses have dealt with research on the effectiveness of outdoor science lessons, reports of research results are just starting to appear in wider-read professional journals. To this end, we need many more well-designed and reported research studies to demonstrate how an outdoor experience can improve science performance.

What Can Outdoor Educators Do?

Outdoor educators need to be more aware of the real *process* nature of modern scientific inquiry. Staff at outdoor/environmental education centres also need to look closely at and, if necessary, clarify their centre's instructional mandate and their programmes to see if and how they complement school science programs and, indeed, what type of science is really being done at their centres.

For example, many outdoor centres' science programmes are mostly either observational or data gathering activities, both beginner-level, yet still very important, science skills. The ability to "observe accurately and to report observations correctly" remains an essential skill in the conduct of science (UNESCO 1962). However important that skill, perhaps we need to think about moving beyond it to other aspects of science in order to avoid what Raffan (1990) called "the illusion of science" in outdoor lessons, characterized by a "preponderance" of work sheets. Many outdoor

education centres could probably do a better job of teaching other important, and perhaps more advanced, scientific skills, including experimenting, hypothesizing, controlling variables and problem-solving. Science like this doesn't just happen; it requires extra training and preparation on the part of the instructors.

It is also possible that outdoor education science-based activities could benefit from improved instruction and better qualified teachers. For instance, Karpas and Klopfer (1959) listed several shortcomings in science teachers' qualifications that could affect the quality of their teaching. Olson (1991) claimed that the major problem for elementary science teachers is that "they usually do not know much science." McFadden (1980) suggested that one of the obstacles to improved science education is the "character and extent of the teachers own education in science, in that few science teachers have gained the self-confidence and understanding that comes from actual scientific activity. Outdoor educators must continue to accept the responsibility for staying up to date on appropriate teaching methods and current scientific issues.

Bough (1972) believed that "unless there is a strong tie between the school and camp experience, both lose some of their potential." Smith *et al.* (1972) suggested that outdoor science experiences should be "related to the course content of the classroom", and "preceded by preparation" and followed-up in the classroom. However, Raffan (1990) claimed that "connections between nature study centres and in-class curriculum are tenuous at best." While it may seem obvious, outdoor educators need to form partnerships with classroom teachers to recognize the importance of effective preparation and follow-up to an outdoor education visit and to avoid the trap of what Raffan (1990) called "throw-away schooling".

The importance of these partnerships is underscored by the short time that students spend at outdoor centres relative to the time in the classroom. For example, Skid Crease of the North York Board of Education has estimated

that the 7 1/2 outdoor education days mandated by that board comprise only about 0.03% of each student's total instructional time. As a result, this brief time isn't really conducive to setting up and running long-term science experiments. However, there is no reason why short, well-designed science experiences can't be planned and successfully implemented (see, for instance, Whitcombe 1991b).

Finally...

Outdoor educators also need to describe their vision of science, a vision that moves beyond the scientific method towards a truly integrated curriculum and also encompasses a development of values and ethics. We also can develop a more balanced approach to include the various types of science learning. Outdoor educators must be more diligent in their efforts to document the science curriculum benefits of outdoor activities and move beyond just the "we can handle any subject" approach in the future. Curriculum accountability is virtually unavoidable. Finally, I believe that outdoor educators have to progress from talking just among themselves and start effectively communicating with other educators, business people, media, parents and the community.

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References

- Asimov, Isaac. 1983. *X' Stands for Unknown*. New York, NY: Avon/Discus Books. 218 pp.
- Bough, Glen O. 1972. *Science and outdoor education, or 'NOBODY CAN REALLY KNOW HOW I FEEL.'* pp. 132-137 in: George W. Donaldson and Oswald Goering. (eds.) 1972. *Perspectives in outdoor education ... readings*. Dubuque, Iowa: Wm. C. Brown Publ.
- Bowyer, John. 1990. *Practical solutions to problems in outdoor education*. Pathways 3(1): 6 - 7, 32.
- Hayllar, Bruce. 1990. *Residential outdoor education*. pp. 125 - 144 in: Keith McRae (ed.) *Outdoor and environmental education: diverse purposes and practices*. Melbourne: McMillan Co.
- Ingleton, Ralph. 1991. *Current perspectives of outdoor education and environmental education*. Pathways 3(2): 18 - 19, 22 - 23, 29.
- Karpas, M. R., and L. E. Klopfer. 1959. *General problems of science education in American high schools*. pp. 135 - 148 in: J. S. Roucek (ed.). *The challenges of science education*. New York: Philosophical Library, Inc.
- McFadden, Charles P. 1980. *Barriers to science education improvement in Canada: a case in point*. pp. 49 - 59 in: McFadden, Charles P. (ed.) *World Trends in Science Education*. Halifax, NS: Atlantic Institute of Education. 304 pp.
- Moore, Dave. 1992. *Who cares how deep the pond is?* Pathways 4(4) 8-9.
- Olson, John. 1991. *Better Elementary Science Through Professional Development: Giving Teachers the Support They Deserve*. Queen's University Faculty of Education: Mathematics, Science, and Technology Group Occasional Publications No. 2. 6 pp.

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Ontario Ministry of Education. 1986. *Science in Primary and Junior Education: A Statement of Direction*. 28 pp.

Ontario Ministry of Education. 1987. *Curriculum Guideline: Science, Intermediate and Senior Divisions. Part 1: Program Outline and Policy*. 104 pp.

Ontario Ministry of Education. 1987. *Curriculum Guideline: Science, Intermediate and Senior Divisions. Part 2: Science: Grades 7 and 8*. 48 pp.

Ontario Ministry of Education. 1988. *Science is Happening Here: A Policy Statement for Science in the Primary and Junior Divisions*. 46 pp.

Raffan, James. 1990. *The failed curriculum*. *Journal of Experiential Education* 13(3): 47-49.

Ricklefs, Robert E. 1973. *Ecology*. Newton MA: Chiron Press. 861 pp.

Shikaze, Sue. 1991. *The role and responsibility of science in fostering environmental appreciation, awareness and action*. *Crucible* 22(2): 26-29.

Smith, Julian, R. E. Carlson, G. W. Donaldson and H. B. Masters. 1972. *Outdoor education*. 2nd Ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Tamir, Pinchas. 1991. *Factors associated with the relationship between formal, informal, and nonformal science learning*. *Journal of Environmental Education* 22(2): 34-42.

UNESCO. 1962. *UNESCO Source Book for Science Teaching*. Paris: United Nations Educational Scientific and Cultural Organization. 250 pp.

Vahey, Trish. 1992. *The profanity of 'Why?'* *Pathways* 4(6): 12-15

Whitcombe, Mark. 1991a. *Editor's Log Book and Outdoor education in the education system*. *Pathways* 3(3): 2, 5-7.

Whitcombe, Mark. 1991b. *Goldenrod gall math*. *Pathways* 3(3): 12-15.



The Evergreen Foundation: Restoring Health to the Urban Environment

More than 70% of Canadians live in cities, and our urban areas are expanding every day. As the cities spread into the countryside, nature in the urban areas is reduced to a few disconnected parks. People who spend their time in cars, office buildings and concrete malls can go through an entire day without ever coming into contact with nature. They become disconnected from the natural world. At the same time, large urban areas are facing very real strains on air and water quality. Natural areas help filter air and water, moderate temperatures, create recreational space and provide bird and other wildlife habitats. The lack of functioning natural areas is affecting the health of our cities and has a clear link to the quality of life enjoyed by their citizens.

At the same time, people across Canada are being exposed to the idea of restoring nature to their communities. Grassroots groups are organizing planting activities which involve participants from across a broad spectrum. The formative stage of a new urban landscape is emerging. Changes are taking place which are modifying the appearance of school grounds, corporate and commercial spaces, public lands and private property.

School boards, teachers and parents at hundreds of Canadian schools are transforming their school grounds into healthier, more natural areas of educational value. Our children have been cut off from nature and the essential lessons which it provides. School grounds have in the past been asphalt and concrete surrounded by chain-link fences. What vegetation that does exist is expensively maintained through mowing, fertilization and watering. Planting and maintaining native trees, shrubs and wildflowers develops environmental values in students through hands-on experience and encourages them to be responsible for these areas they have created.

Public land owners, faced with budget restraints, are becoming aware that naturalized

areas cost less to maintain than mown turf. At the same time, parks departments are trying to respond to an increased demand for trails and greenways to be used by cyclists, pedestrians, runners and rollerbladers and are looking at their landscapes as potential sites for naturalization.

Corporate lands are being transformed as natural landscaping techniques are introduced. In some cases, the employees of the companies participate in the planting projects and follow the results on a day-to-day basis.

Some home owners are replacing grass and formal gardens with native ground covers, shrubs and wildflowers. These individual initiatives lead to reduced use of pesticides, herbicides and water in our urban areas.

Since the spring of 1991, The Evergreen Foundation (EF) has been dedicated to restoring and protecting natural areas in the urban environment through education and responsible action. Natural areas are vital to the health of our cities and are also a tremendous educational and recreational resource. They are, however, currently under considerable stress, and their restoration depends on community action and support. EF programs, such as School Ground and Community Naturalization, aim to change areas of bleak concrete to more liveable, balanced environments and involve schools, communities, government and business in the process. Naturalization projects provide cities with the direct benefits of restored natural areas and encourage their citizens to be more aware of the importance of a healthy urban environment.

School Ground Naturalization

SGN is a national tree planting and education programme for schools and their communities. The objective is to help students,



*The Evergreen
Foundation's
Community
Naturalization
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into more liveable,
balanced
environments*

parents and teachers transform their school grounds from barren asphalt spaces into healthy, natural areas of educational value. These areas give students the opportunity to connect with nature in their own school grounds and study biologically diverse ecosystems, including prairie grasslands, butterfly gardens, forests and other wildlife habitats.

During the fall and early winter, The Evergreen Foundation contacts schools about the programme through their boards, educational publications and, in the greater Toronto and Vancouver areas, through in-school presentations. Workshops in Vancouver, Toronto and Halifax bring teachers, parents, school boards and maintenance people together to discuss issues and plan projects. Direct grants are made to schools across Canada in the late winter for the purchase of plant material. \$30,000 was allocated in 1993 to 117 schools, with a maximum of \$500 per school. The Evergreen Foundation has set a goal of \$50,000 for grants in the spring of 1994. Project ideas and proper maintenance procedures are provided through a newsletter and direct contact with participants, where possible. In September of 1993, Prentice Hall will publish the program's 'how to' guide book, *Welcoming Back the Wilderness*, to support these projects.

Community Naturalization

The Evergreen Foundation's Community Naturalization program aims to change our cities into more liveable, balanced environments through the participation of school groups, community volunteers, government agencies and members of the business sector in urban naturalization projects. Native trees and shrubs are planted to convert existing marginal and turf spaces into functioning natural areas. Planting events and educational presentations are carried out as part of larger restoration projects, which can also include building marshlands, bridges and pathways and removing restrictions on a river's natural meandering. These projects occur on land

owned by corporations, park departments and other municipal land-owning agencies including transportation and road departments.

The educational component of these events has been expanded for 1993. In-school presentations and information will be given to participating students to maximize the educational opportunities provided through these planting events. Community and service groups will also be involved as volunteers in the program for 1993. To help make the general public aware of the program, an environmental supplement, *Evergreen World*, is published with a major Canadian daily newspaper and distributed to 10 school boards across the greater Toronto Area.

Since 1991, nearly 10,000 people have planted over 15,000 native trees and shrubs in the Greater Toronto Area. Projects initiated by The Evergreen Foundation include the Langstaff Business EcoPark, Metro Toronto's West Humber Rehabilitation Project, Toronto Transit Commission's Wilson Station Naturalization and Upper Canada Brewing Company's Ecology Sculpture Park.

Currently, The Evergreen Foundation is facilitating school and community planting and educational presentations in partnership with the Task Force to Bring Back the Don, the Metropolitan Toronto and Region Conservation Authority, Metropolitan Toronto Parks and Property, and City of Toronto Department of Parks and Recreation.

Work in 1993/94 will continue on The Langstaff Business EcoPark, West Humber Rehabilitation and the Bring Back the Don projects, with approximately 20 planting events with an average of 200 students and volunteers planting 400 native trees and shrubs at each event. There is growing interest across Canada, and The Evergreen Foundation plans to continue regional projects started in the Vancouver Area in the spring of 1993 by setting up a Vancouver office.

Gift of Nature

This program was established recently to

allow an individual to plant a tree in the name of a friend or loved one. For \$25, an attractive certificate is sent to a friend, stating that a native tree will be planted in the Greater Toronto or Vancouver area in that person's honour. Gift givers and recipients are invited to a spring or fall planting event so that they can plant their trees. EF volunteers plant Gift of Nature trees for those unable to participate. This program provides a real chance to make the city a healthier place.

Not affiliated with any other group or government agency, The Evergreen Foundation depends on the support of individuals, businesses, private foundations and governments to pursue its objectives.

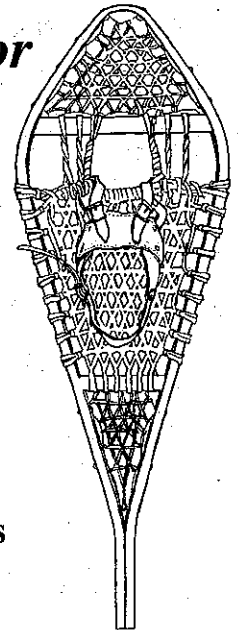
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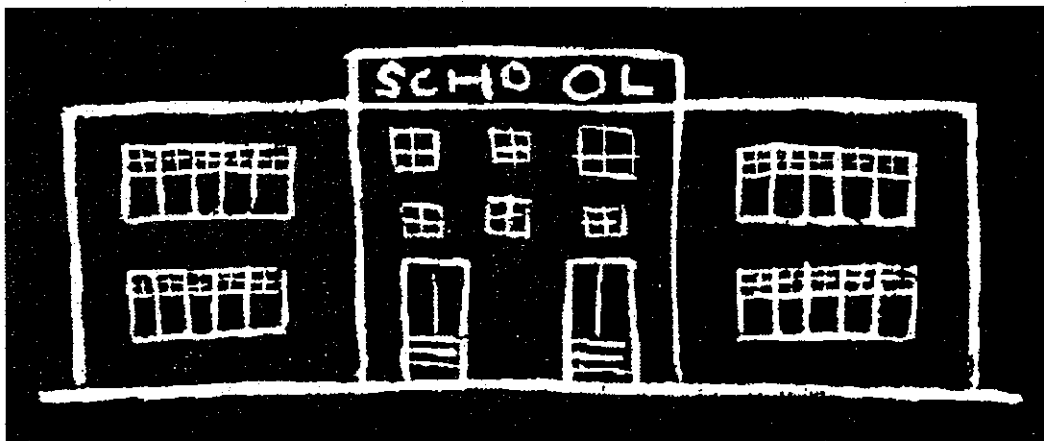
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Overcoming Barriers to Implementing Outdoor and Environmental Education

Glenda Hanna

Each environmental barrier or hazard we experience can be overcome through specific strategies and tactics.

Introduction

Across North America, educators are confronting a 'back to basics wave designed to focus them and their students on identified L.O.'s (learning outcomes) and reduce time devoted to perceived extraneous and frivolous experiential components and processes. As resources decline, outdoor and environmental education programmes will survive only where teachers are dedicated to experiential education, where they are innovative and creative in their programming, and yes, sometimes where they can be subversive enough in dealing with administrative realities.

To those of us recognizing the need for reform *towards* rather than *away* from experiential education, this declining philosophical and practical support is particularly frustrating. To those uninitiated in the personal and transformational powers of adventure and environmental education, the chances of overcoming the hurdles to implementing a new experiential program must seem particularly onerous. In responding to this philosophical 'controversy,' Conrad eloquently illustrated the fundamental difference in advocating experiential education:

We'd be better off with less time spent with books and more time spent with nature, less time in our boxes and more time in the wilderness, with things that are real, not images, not sound bytes; to relate to and commune with flowers and streams and animals, as equals, as part of the same dimensions of being.... What we need is to be free to dream and imagine and create-to create our own knowledge and discover our own wisdom and forge our own truth, not because nothing can be learned from books or from television, but because too much can be learned from them: the reductive truths of others that serve to define us and control us and ultimately diminish us.

(Conrad, 1988)

If teachers, the conduit between the administrators and students, are to choose to interpret and present the curriculum in an experiential fashion and to work to include environmental and outdoor education, they must have the knowledge and skills to overcome the barriers which may impede their way to this goal.

Over this and the next three issues of *Pathways*, this column will share some of the common barriers currently confronting outdoor and experiential education teachers and present some techniques and tactics for resolving them. The identified concerns and suggested solutions were obtained from in-depth open-ended interviews conducted with ten outdoor and/or environmental education teachers (eight) and consultants (two) across Alberta. To complement the provincial focus of the data collected, a review of the study's findings was conducted at the 1992 Association for Experiential Education Conference. The 25 workshop participants were from 14 states and four provinces and all but two were directly involved in the delivery of outdoor and environmental education (the two exceptions were university students studying in this area). Seventeen were school teachers currently teaching the subject in North America. This group reviewed the ideas presented based on the initial study and identified additional strategies and techniques they felt warranted consideration.

Each of the nine common barriers which emerged can be thought of metaphorically as an environmental hazard or peril we may encounter on an outdoor trip. Each environmental barrier or hazard we experience can be overcome through specific strategies and tactics. Similarly, one or more strategies or tactics or techniques can be adopted or adapted to successfully negotiate each programmatic problem spot en route to an enjoyable, fulfilling educational experience.

The selected barriers and strategies for negotiation will be dealt with in the order of frequency with which they were mentioned by the initial co-researchers interviewed. They are as follows, and will be divided evenly between three issues of *Pathways* [editor's note]:

- Senior Administrative Support
- Teacher Comfort and Competence
- Safety/Legal Liability
- Timetabling/Scheduling
- Resources (Curriculum Materials)
- Terrain/Sites
- Transportation
- Equipment
- Budget

In an effort to continue collecting and sharing ideas regarding barriers and solutions, I encourage readers to send me any additional problems they have encountered in initiating or maintaining outdoor and/or environmental education programmes, and the strategies and tactics which they have successfully used to conduct these courses. I will endeavour to write follow-up articles which integrate these alternatives.

Senior Administrative Support

Len was sitting in the school staff meeting, listening intently. His principal, George, was standing up, redfaced, waving the results of the last round of provincial departmental test results high in the air. The school had not performed up to snuff, falling below the mean in most major academic subjects. George was angry and continued his lament, "We're going to change this situation this year. We're going to focus on the basics and cut back on the time and energy we spend playing games and taking field trips. Things are going to be different around here, by golly." Len wondered how he could ever raise the topic of introducing an outdoor and environmental ed. option next term and get the support he needed from George. He decided today probably wouldn't be a particularly good time to try.



The teacher interested in initiating or continuing an outdoor and/or environmental education program may run into *deadfall* blocking the trail. With an already onerous load to bear (heavy teaching loads, short class periods, large class sizes, little preparation time, etc.) teachers may encounter old paradigm thinking administrators (i.e., didactic oriented, 'back to the basics') who may not appreciate the values of outdoor and environmental education. They may, purposely or inadvertently, throw a variety of obstacles in the path of the keen teacher (eg., withholding or withdrawing funding and other support, requiring additional training and/or leadership certification, etc.).

Ideally, as a teacher interested in running a programme in outdoor and/or environmental education, you will want to remove administrative barriers so the path will be clear not only for you, but for those who follow too. Different strategies and tactics may be applied to overcome this deadfall barrier. While a confrontative approach may be suggested by the terms 'deadfall' and 'obstacles,' what is typically much more effective is a collaborative, synergistic effort involving teachers, consultants, administrators, students and parents. Treating an administrator as an adversary versus ally is likely to lead to little success in garnering support.

Begin by knowing the administrator you are dealing with. What are his or her values and goals? What does that individual see the mandate of the school being? Once these have

It is important to make strong and real curricular connections where these exist and use other teachers as support colleagues.

been identified, start developing a proposal which relates to these factors and addresses ways in which they will be covered or complemented through the programme.

Consider and note all of the positive outcomes of the programme possible. These benefits may include not only cognitive, academic content learning, but also important attitudinal, social, and physical fitness outcomes. Formal research findings as well as anecdotal evidence may both help substantiate these claims—do your homework. Use the type of data your particular administrator relates to most readily.

It is important to make strong and real curricular connections where these exist (eg., with social studies, language arts, mathematics, physical education, etc.) and use other teachers as support colleagues. In other words, try to integrate concepts, issues, investigations and activities across the curriculum.

It may be best to begin building some of your bridges informally before going to your administrator. By bringing together people interested in implementing or maintaining a sound program, many obstacles may be removed by administrators. Important support may be secured not only from other teachers, but from board consultants, parents, students and others with an interest or commitment to this type of education.

In some cases, a separate outdoor and environmental education or outdoor education course of studies may be recognized by the board. For example, in Alberta, a solid complementary course of studies in Environmental and Outdoor Education exists (Alberta Education, 1991) and it is expected that it be offered in each school eventually. If a teacher or teachers champion this course of studies (grades 7-9) in their school, it should be accepted. This particular programme is excellent because it is interdisciplinary and holistic and may, in fact, prove helpful as a school planning model.

Finally, when taking your proposal to your administrator, identify other potential barriers to success you expect to encounter.

Be prepared to share your ideas for strategies to overcome these and make specific requests for assistance from your administrator where appropriate. Remember, you're on the same team and have to be prepared to help each other.

In sum, deadfall tossed in your path by administrators ignorant of or unsympathetic towards implementing or maintaining a course in outdoor and/or environmental education should be handled collaboratively, including the administrator in the process. A support system including other teachers, consultants, students and parents can help you identify programme rationale and parameters. If everyone lifts together, there isn't much you can't move.

Teacher Comfort and Competence

"How can I ever teach all of this stuff?" Sandy shook her head looking at the table of contents of the Outdoor and Environmental Education Instructors Manual she held in her hand.... "Ecological concepts, environmental issues, orienteering, cross country skiing, camping...." "I just don't know if I can do it all and do a good job." Sandy's friend and colleague Beth acknowledged her feelings with a nod, "I know how you feel. That's exactly how I was two years ago. I found that if I just started slow and built on the knowledge and experience I had, it wasn't so bad. Which parts look easiest to you now? Which look the most interesting to learn about?"

One of the biggest *bears* to getting programmes going or expanding them to include environmental and adventure education components involves the limited training, experience and confidence of the teacher(s) who must deliver the programme. Few are as comfortable sharing a tree poem as using those same trees to set up a ropes course (or vice versa). Outdoor leadership also suggests personal competence in activity pursuits (eg. canoeing, cross-country skiing, climbing, etc.) requisite to teaching these skills and leading others safely in the natural environment.

In confronting this bear, it is important to recognize the type of bear (eg. black versus grizzly-comfort versus competence) because different strategies may apply to deal with each. For example, most bear experts advocate dealing aggressively with a black bear, but much more submissively with a grizzly.

Your 'comfort' bears may be successfully dealt with by recognizing and dealing with your real or perceived limits. If you are concerned that you don't know the proper names of all the plants or birds in your area and fear being asked a question you can't answer, consider responding with something like, "Gee, I don't know. Let's see how many features we can identify on it and we'll look it up when we get back to class." No-one knows all the answers and a co-learner strategy more strongly reflects the collaborative approach we will need to use to resolve environmental issues confronting the planet. It also takes a lot of the pressure off you, the teacher, to be perfect. With respect to learning outdoor skills, your comfort bear may be dealt with most readily by aggressively seeking out opportunities to learn and lead outdoor and environmental content and processes (in local, relatively safe situations before more high risk remote locations).

The 'competence' bears require sincere recognition and acceptance and handling through team teaching and/or personal training. Because environmental and outdoor education are cross-disciplinary subjects/approaches, hopefully one or more partners can be found within the school to help complement your strengths and weaknesses. Sometimes a local college or university with a related outdoor or environmental programme will be able to provide one or more senior students seeking practicum experiences. While it would be unfair and perhaps unsafe to hand over too much responsibility to such a novice leader, working closely with this type of practicum student may pay dividends for both of you. It will be beneficial to your programme in that the reduced instructor/student ratio will increase safety and educational efficacy.



Additional training opportunities are often available to you through board specialist consultants, conferences, professional development day events, and university courses. Many other agencies and institutions (eg. Canadian Association of Nordic Ski Instructors, Canadian Recreational Canoeing Association, Outward Bound, NOLS, Audobon, etc.) offer skill and leadership development programmes directed at helping individuals develop the skills needed to lead others in and for the outdoors. Finally, you may wish to consider joining an outdoor activity or environmental club or association and/or doing more personal reading to increase your experience and knowledge bases.

Some boards and/or principals may require that competence be reflected through the acquisition of related certifications. While certification courses are no guarantee of excellence in instruction and/or safe leadership, they do provide one avenue to obtaining relevant training and assessments of your knowledge and skills. Explore the potential instruction and leadership certification programmes available in the outdoor activity pursuits and environmental programmes you are most interested in introducing in your curriculum. Where they are required by your board or principal, request the time and support needed to take the courses and exams.

In sum, the amount you can continue training and increasing your personal preparation will depend on your available time, energy and interest, but the more prepared you are, the more confident and competent you will become. If a team teaching approach

isn't practical at your school, the key will be to start with something you can handle and then build on it. Success breeds success!

In closing, recognize that there are real risks involved in outdoor programmes and develop a risk management plan to deal with these appropriately. Understand your legal as well as ethical responsibilities for your students and ensure that sufficient insurance protection is available in the event of an accident.

Dr. Glenda Hanna is a professor of Outdoor-Environmental Education at the University of Alberta.

Reference:

Conrad, D. (1988) *Proceedings of the 16th Conference of the Association of Experiential Educators*, Boulder Co.

NORTHERN ILLINOIS UNIVERSITY COUNCIL OF OUTDOOR EDUCATORS OF ONTARIO PROFESSIONAL DEVELOPMENT COMMITTEE OFFER: GRADUATE LEVEL COURSE IN OUTDOOR EDUCATION

Title & Desc.: C10E 534 Integrating Community Resources into Curriculum & Instruction.
Instructors: Dr. Clifford Knapp - Professor OTE, NIU, Taft Campus, Oregon, Illinois
Cost: Fee: \$400 Deposit: \$100
Enrollment: 16 person minimum. Contact: Mr. Brent Dysart, Laurel Creek Nature Centre in Waterloo - (519) 885-1289 to register or for further information. Registration closes Feb. 1/94
Dates & Times: Sat. & Sun. March 5, 6 - 9:00 am to 3:00 pm - Toronto
Sat. & Sun. March 26, 27 - 9:00 am to 3:00 pm - Waterloo
Sat. & Sun. April 9, 10 - 9:00 am to 3:00 pm - Waterloo
Sat. & Sun. April 30, 1 - 9:00 am to 3:00 pm - Toronto

Plan to attend all sessions. Please be sure the above dates are open and that you have no conflicts before you register.

STUDENTS WILL BE INVOLVED IN:

1. Investigating ways to involve your students by helping them discover their natural and cultural surroundings.
2. Interviewing people and writing articles based on their lives.
3. Visiting places and writing about what captures their interest.
4. Selecting a project and cooperatively writing about their chosen interests in their own communities (based on the "Foxfire" Approach).
5. Exploring the theory and practice of expelit is important to make strong and real curricular connections where these exist (eg., with social studies, language arts, mathematics, physical education, etc.) and use other teachers as support colleagues. experiential learning through direct experiences in the community.

KEY CORE PRACTICES OF THE FOXFIRE APPROACH:

1. the role of the teacher must be that of collaborator, team leader and guide.
 2. The work is characterized by student action.
 3. There is an emphasis on peer teaching and small group work.
 4. There must be an audience beyond the teacher for student work.
 5. The work must include ongoing evaluation for skills, content and changes in student attitude.
- Text - *Sometimes a Shining Moment, The Foxfire Experience*, Eliot Wigington 1986, Doubleday

New Society Publisher's: The Bioregional Series

Bob Henderson

Judith and Christopher Plant and a wealth of friends in their community of 'place,' their bioregion, and their community of like-minded ecological activists and educators have a common vision to 'build a new society.' From this sprung New Society Publishers: a far-reaching influential tabloid, a publisher's catalogue of alternative and activist books, and a publishing house of exceedingly relevant titles. New Society Publishers began humbly in the bush near Lilloolt, B.C., where Judith and Christopher pursue what Christopher has titled 'the maturation of the Back-to-the-Land movement.'

The *New Catalyst* tabloid first published in 1985 as a west coast alternative press for the alternative movement, was their first initiative. The publication has a large following and influence and has now evolved into an umbrella for the seemingly diverse environmentalists, ecological restorationists, urban social therapists/activists, aboriginal nations and peace activists. The *New Catalyst* was a finalist in the Nature Reader's Alternative Press Awards in 1989. This recognition of excellence is particularly exciting, one can be sure, for back-to-the-landers who started without a computer, telephone, or easy transportation. The *New Catalyst* is a quarterly magazine and as a single source can keep you up-to-date on the thinking from a counter-structural, ecologically minded, dare I say, resistance. Admittedly the focus is the West Coast and British Columbia interior, but there is a healthy effort to be North American in outlook.

New Society Publishers Canada produces a catalogue of books that address in the broadest terms, social change and ecological restoration of place. In their own words, 'NSP is committed to passing on the stories, ideas, and skills of the collective action and individual courage of this movement for nonviolent social change.' There are how-to books on; creating community

control, greening the garden, socially conscious investing and evaluating children's books. There are resource books on empowering children, cooperative games, and responding effectively to children's fascination with war play and war toys. There is storytelling and analysis, practical guides and philosophical manifesto. In short, it is an impressive catalogue of titles not readily found in local bookstores. Here's a brief list: *A Manual on Non-violence and Children*, *Dumbing us Down: The Hidden Curriculum of Compulsory Schooling*, *Boundaries of Home: Mapping for Local Empowerment*. Titles likely known to many include: *Thinking Like a Mountain: Towards a Council of all Beings*; *Despair and Personal Power in the Nuclear Age*; *Dwellers in the Land: The Bioregional Vision*; and *Turtle Talk: Voices for a Sustainable Future*.

NSP is currently engaged in creating a collection of edited volumes on Bioregionalism. *The New Catalyst Bioregional Series* which consists of six titles to date, is a constructive whole approach to building ecologically sustainable cultures and communities. Building communities; reorganizing local economics, mapping watershed regions with water and air flow, understanding distribution of species, identifying hot spots, commuting patterns, local history sites and case studies from around the world of successful bioregionalism initiatives are all part of the series. The series comprises a comprehensive treatment of this emerging creative and sensible effort to rethink how precisely we dwell with our 'place.' *Turtle Talk: Voices for a Sustainable Future*, the first in the series, is an excellent starting point. Contributors Peter Berg, Murray Bookchin, George Woodcock, Gary Snyder and others provide the inspiration to launch into further reading and bring bioregional awareness activities to the classroom. The latest book of the series, *Bounda-*



Proposing a pedagogy is an act of moral agency and an act of constructing a political vision.

ries of Home: Mapping for Local Empowerment offers a step-by-step plan for educators to creatively map their region. The book asks questions such as: "what do you value in your place?" "what symbol best depicts your bioregion?" and, "how do you interact with your region beyond its city limits." Editor of this volume, Doug Aberley, writes; "The point is that people living 'in place' have the ability to customize a worldview that allows the physical world to become alive with nuance and opportunity." For 'reinhabitants' to 'reclaim the commons' involves identifying that we are indeed in disharmony with our place, that there are forces that subjugate land and communities and finally that a creative action plan to reclaim land and community is possible. Indeed, *Living with the Land*, the fourth book in the series, showcases communities that have acted out the above steps. Over 20 case studies in rural and urban locations around the world offer evidence and guidelines in their stories of progress, defined as "going forward to nature".

Our teaching and learning in the classroom and in the field is at all times political. Pedagogy has many possible definitions, but central among them must be that the knowledge and practice that teachers, cultural workers and students might engage in together supports some brand of cultural politics.

Proposing a pedagogy is an act of moral agency and an act of constructing a political vision. Perhaps we might not like to think of our work this way, but we cannot escape it.

From this understanding the *New Catalyst Bioregionalism Series*, The New Society Publishers book catalogue, and the quarterly *New Catalyst* tabloid are all instructive in addressing a new political (a new pedagogical) vision directly.

If we judge the variety of themes presented to be out of the context for Outdoor Education, then this too is a political act. In this so-called turn-around decade, we cannot avoid our political act of teaching. In fact, we wear it on our sleeve at all times. The NSP offers ideas and activities with vision.

For more information, contact:

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Bob Henderson



The Friendly Classroom for a Small Planet

Priscilla Prutzman, Lee Stern, M.L. Burger, Gretchen Bodenhamer

New Society Publishers, 1988 131 pages

Review by Sarah McClure

When we first walk into a roomful of people, be it a family gathered for Thanksgiving, a classroom of young children or a town council meeting, we naturally take a reading. We feel out the situation. Do we sense an atmosphere of trust or community spirit? Why is this feeling present or lacking?

The Friendly Classroom for a Small Planet (FCSP) is a handbook put together by a team of authors working actively in the programme: Children's Creative Response to Conflict (CCRC). Their philosophy is based on the belief that if a serious effort is put forth "to create an atmosphere among children and adults which is warm, affirming, and supportive," children will naturally learn how to deal with conflict in a positive and effective manner.

The FCSP guidebook is a good solid compilation of suggested activities which promote a positive learning environment. The FCSP is extremely user-friendly, inviting the teacher/leader to simply use the methods as fun community-building components, or to approach the programme at a higher level by integrating the techniques into classroom curricula.

A sense of trust and comfort within a group is established through their suggested 'loosening-up' and co-operation activities (Chapters 7, 8). "I Love Ya' Honey but I Just Can't Smile" is an example of such an activity. Children sit in a circle. One person begins by asking the person to the right, "Do you love me honey?" He or she replies, "I love ya' honey, but I just can't smile." The first person must then try to make the second smile. And so this laughter-producing game continues around the circle. Explanations to all activities

are clear, easy to follow, and often accompanied by illustrations.

The latter part of the book introduces methods of improving communication skills and affirmation exercises which promote a positive self-image. CCRC knows that poor self-image leads to many conflicts in schools and in society, in general. How can someone feel good about someone else if he feels rotten about himself? The guidebook proposes exercises which help children realize and express positive things about themselves and others.

Thumbs up for *The Friendly Classroom for a Small Planet*. I have found the FCSP to be an excellent guide for experimentation. Our classroom has become a warmer, safer, and more supportive place in response.

Sarah McClure is a Grade 4 Classroom Teacher at Rousseau P.S., Ancaster, Ontario.



The guidebook proposes exercises which help children realize and express positive things about themselves and others.

We feel comfortable with play by play commentary and are somewhat lost without it.

The Salmon Teaches

I have experienced a wide range of feelings while working at Wilmot Creek O.E. Centre from moments of incredible frustration to times of intense fulfillment and satisfaction, much like any Outdoor Education Instructor, I suppose. I have tried to capture some of these experiences on paper.

A teaching moment fell into my lap today. Quite unexpectedly.

We were tiptoeing down to the bridge, pretending to be foxes stalking rabbits. I spotted a large silver flash in the water below and immediately one kid yelled out 'fish!'. This sent all ten children on a wild charge onto the bridge, and their stamping feet caused a giant fin to flick, and it was gone.

We waited quietly on the bridge, and soon enough a giant salmon lazily glided up the stream. Its back was slightly crimson and it had an ominous looking hooked jaw.

"What kind of fish is it?" someone asked.

"A kind of salmon," I replied. I knew that much.

"What kind of salmon?" a parent wanted to know.

"Well, its a...um, a...why don't we look him up when we get back to the centre?" It wasn't exactly a satisfying response but it was the best I could do.

Here was the time I wish I could draw on a secret store of salmon lore. There was much I wanted to be able to teach the students about salmon, but I had so little to say that I settled on saying nothing at all.

How strange that I felt incompetent to leading that hike at that moment. Now that I think about it, just watching that large salmon was by itself an amazing thing. I don't think the salmon needed me as a spokesperson. It spoke quite eloquently with its quietly waving fins.

We are so conditioned to the 'interpretation' approach to nature. We feel comfortable with play by play commentary and are somewhat lost without it. It's almost as if we can't quite trust our own eyes, or as if learning by watching will never give us the full picture.

Perhaps, given the way we are accustomed to acquiring knowledge, there is some truth in this. Commentary does add to our body of knowledge. And yet, there is something irreplaceable that can be gained by discovering a little bit about how the world works as it unfolds of its own accord. It takes more patience and more attentiveness but I think it is infinitely more satisfying.

It may be that we rush too quickly to explain things away. The more facts we can cram into the workings of a living thing, the more we imagine we can appreciate it. I'm not sure if the reverse isn't true. It is as if you watched your grandfather make a canoe with his own hands compared to reading a book about making canoes. Both ways may teach you about canoes but the latter is one step removed from the canoe. And so it is that explaining about salmon instead of watching the salmon and allowing it to do the teaching seems to me to be one step removed from the salmon.

I was tempted, while perched there on the bridge with a large salmon below and 10 curious children behind, to spew out interesting salmon facts, to tell everything I knew about salmon in two minutes or less; how salmon lay eggs; the little fish fry and their fight towards the lake; their difficult return journey as adults, battling waterfalls, fishermen and predators. But I realized that, as interesting as those facts may have been, they were not connected to what the salmon was doing while we were watching it. And so I remained silent. The salmon had a story to tell and if I wanted to make commentary, I may have helped the salmon to let us know what it was doing. That, I think, is nature education.

But the truth is I wasn't sure what the salmon was doing. And even though my silence came from ignorance, I am sure our quiet observations of the salmon proved to be a more powerful teacher than any words I had to offer.

Yesterday I lost my temper

Not just a little bit, but with gusto and

with a passion that surprised not only the student; it startled me as well.

We were busy with my Centre's mapping programme and Shawn had his own world to map (which was different from the one we were busy with). He giggled, he poked people in the back, made outrageous answers to questions I asked and kept knocking a clipboard against the desk. In a word, he was obnoxious.

Several times I asked him to stop, each time more firmly than the last. But he had an impish smile, and my firmness only seemed to strengthen his resolve to do whatever he could to get in the way of the programme.

Now the teacher had warned me about him, so already I was determined that this young man was not going to interfere with my mapping programme. Also, I had consumed four or five cups of coffee that morning (thanks to a late night). Not surprisingly, I was feeling somewhat on edge.

Shawn had wandered over to the nature table just after I had asked him to sit down. I asked him to sit down once again, and he promptly ignored me while he looked over the jawbone of a moose.

"Sit down now!" I demanded with all the sternness I could muster.

No response; I may as well have been talking to a stone.

Again I insisted that he sit down. This time the corners of his mouth began to turn upward in the kind of goading smile that could annoy even the most patient teacher. I was feeling far from patient. Something inside me snapped. I swear I could almost hear it.

"Sit down on your butt right now, damn it...!" I screamed. I mean I really screamed. Shawn seemed somewhat taken aback. I hauled him over to my desk and began a verbal barrage of such intensity that it scared me. I'm not sure what I said, but I know it was scathing and within easy ear shot of the other students. When I picked up the phone to call his principal I knew I had hit a raw nerve.

Tears welled up in the corners of his eyes and began to spill down his cheeks. He pulled his jacket over his shoulders, hunched

down low and began to sob quietly.

I had enough residue anger that his tears didn't stop me (which surprises me now that I think about it) and I continued to vent my anger. He reminded me of a balloon that was slowly deflating.

When my anger finally subsided along with his tears, I brought Shawn back into the class. All were looking silent and submissive. I think I really experienced, for the first time, the taste of raw power and authority. The students were afraid of me! I didn't like the feeling or the aura I had created. But I became aware of its effect.

We partnered up to find the markers I had hidden. Shawn was left partnerless and so I offered to work with him. He looked upset but I presented him with no other options.

I tried my best to be cheerful and to work constructively along side him. At first it was difficult, but after a while he warmed up to the challenge of the map and the questions I asked him. I wanted to show him that it was his behaviour that I disapproved of and not him.

Strangely, by the end of the day, I had made a friend. It must have been attention he was hungry for, even if it meant that he had to offend people to get it. Later on, I found out his parents were in the midst of an angry divorce and he was taking it hard.

The ferocity of my temper surprised me. I hope it doesn't happen again. In an ironic way, it spurred on a friendship that otherwise may have fallen by the wayside. I wish I had more time to follow through on the little headway I made. But the yellow school bus came unflinchingly at 2:30 in the afternoon, as it does everyday, and with it sped away whatever gains I had made with Shawn.

I did find out one thing though. Sometimes on the heels of a storm, arches a rainbow. And it can be found at unexpected times in unexpected places.

*I wanted to
show him that
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and not him.*

Jacob Rodenburg
Program Naturalist

Wilmot Creek Outdoor Education Centre

Three Foremost Paddling Shows in Canada

Canoe Expo April 8-10, 1994

Given the success of the first two years of Toronto's Canoe Expo, it is now safe to call the event an annual affair. It is hosted by Ontario's sport/recreation governing body Canoe Ontario at Etobicoke's Olympium, an olympic size, multi-pool complex. This event combines a consumer show of over 100 displays with informative workshops and hands-on equipment, trials and demonstrations, both on the practical and common place and more specialized (quirky) aspects of paddling. The Olympium even boasts a white water simulation tank. This is certainly a premier event to kick off the paddling season in Ontario. The event is carefully designed to appeal to all paddling enthusiasts, novice to expert, from squirt boatists and misty morning lake canoeists, to wilderness travellers. Open canoes, kayaks and sea kayaks abound, as do paddlers of all description, with stories of; travel with kids in Ontario's parks, Northern Labrador solo travels, rolling techniques and marathon racing tales. In 1993 the event proved to be a gathering of over 4,000 attendees with something for everyone. For more information on Canoe Expo 1994, April 8-10, Contact : Canoe Ontario, 1220 Sheppard Avenue East, Willowdale, Ontario M2K 2X1, Attention: Dawn MacDonald (905) 495-4180.

Heritage Week Canoe Festival February, 1994

The subtitle to this canoe event says it all: "The birthplace of the Canadian Canoe celebrates the natural beauty and historical heritage of canoeing in Canada." Peterborough, Ontario is a proud city with a proud canoeing heritage. Selected as the future site of the Canadian Canoe Museum (formerly the Kanawa Canoe Museum near Dorset, Ontario),

the city's week long calendar of canoe events is hoped to complement and add impetus to the exciting ongoing museum project. Displays and themes focus on the Peterborough area's district canoes from the Peterborough, Lakefield and Rice Lake Canoe Companies Canoe memorabilia, building techniques, and restoration ideas for the distinctive wooden boat heritage dominate the week's events. Given the many dimensions of the canoe in Canada, the events go beyond the area's rich boat building traditions and 1880's regattas to include canoe exploration history then and now and popular areas of travel today.

The Festival and Museum project hope to, with time, correct the speculative knowledge in certain aspects of canoe heritage with thorough research. The festival serves as a showcase for these ongoing research initiatives by bringing together the canoeing fraternities of New England, Northern New York State and Minnesota's boundary waters with Canada's eastern traditions in New Brunswick, the Ottawa Valley and the Peterborough district of the Trent-Severn waterways.

Events are free and held in February at the Peterborough Lift Lock Visitor's Centre and at Trent University's Wenjack Theatre. For more information contact: Heritage Week Canoe Festival, P.O. BOX 572, Peterborough, Ontario K9J 6ZG (705) 742-2251.

The Wilderness Canoe Association Symposium Slidifest January 28-29, 1994

Each year in January, canoeists rally in Toronto, Ontario around the theme of exploring, with stories, travel accounts, and factual information, a particular region of the Canadian North. The focus for 1994 is the Quebec North Shore Region, specifically the rivers and

as the St. Maurice, Moise, and Romaine Rivers. Speakers are thoughtfully selected to provide a highly varied treatment of the region. There is always a pleasing blend of the informative and entertaining, factual and whimsical, the experts' comprehensive view and the first timers' opinions.

Mixed in with the ever popular general travel account within the region, are talks and slides on the region's history, politics, flora and fauna, etc. The format is unique and well suited to the low key inexpensive affair. All presenters are given 30 minutes, and the audience of 600 gather in one large hall for Friday evening and all day Saturday with ample time for socializing.

The event began as a gathering of friends in the basement of the venerable canoe tripper George Luste for an off season set of slide shows. The informative social seemed like an idea worthy of expansion, and expand it has. However, the 'basement-like' casual atmosphere that suggests its origins happily persists.

Presenters are travellers first, not necessarily seasoned presenters. The spirit of the region in question is always well captured, and one becomes familiar with geography in a canoeists context in a way that exceeds the imagination. Previously explored regions include the Central Arctic, Labrador, Northern Ontario, South-East Keewatin. Contact: Wilderness Canoe Symposium, P.O. Box 211, Station P, Toronto, Ontario M5S 2S7.

Environmental Education in the 'Common Curriculum' January 14-16, 1994

A series of practical workshop sessions to help you carry out environmental education through the four core programme areas: The Arts; Language; Self and Society; and Math, Science, and Technology. This conference will be of interest to classroom teachers of grades 1 to 9, facing the challenge of implementing "Common Curriculum" documents. (English)

Sponsored by the Ministry of Natural Resources, it will be held at The Leslie M. Frost Natural Resources Centre, Dorset, Ontario. Contact Dave Gibson (705) 766-2451.

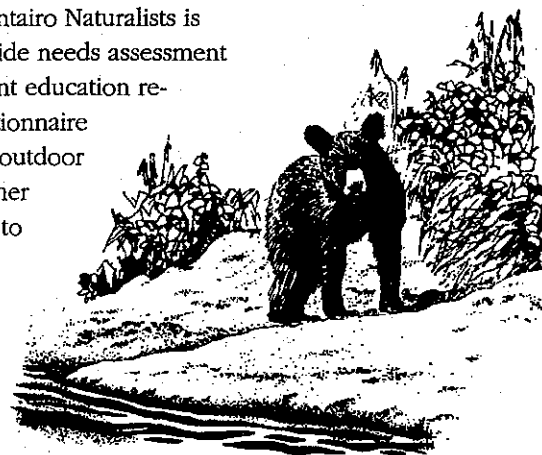
Natural Resources for Educators Workshop March 24-26, 1994

Introductory workshops of 'Focus on Forests,' 'Project WILD,' and "FishWays" programmes. Participants will receive training and activity guides for all programmes, plus many other resources. Suitable for K-OAC teachers. (Workshops are presented in English; manuals are available in French and English.) Sponsored by the Ministry of Natural Resources, it will be held at The Leslie M. Frost Natural Resources Centre, Dorset, Ontario. Contact Dana Kinsman (705) 766-2451.

Attention All Educators

The Federation of Ontario Naturalists is conducting a province-wide needs assessment of nature and environment education resources. Through a questionnaire being mailed to schools, outdoor education centres and other organizations, we hoped to determine how best to serve educators. You are encouraged to fill out and return the questionnaire to ensure that new resources are developed in a manner that works for you.

To receive a questionnaire or for more information, please call or write Karen Fullbrook at *Federation of Ontario Naturalists*, 355 Lesmill Rd., Don Mills, Ontario M3B 2W8 Phone (416) 444-8419 Fax (416) 444-9866.



My First Mountain

Alrigh, it wasn't really a mountain, just a rock face about 50 feet high I guess. It was a day I won't forget for a long time. When I think about it, I can't help but smile. I had wanted to try rock climbing for a long time, but my mother wasn't too keen about the idea.

I had a chance to try an outdoor climbing wall a couple of months earlier at the outdoor education centre where I worked. But real rocks were a lot different. For one thing there weren't definite hand holds—you have a lot more choices of where to put your hands and feet when you're on a rock.

But it wasn't so much the rock climbing, as it was the setting and the beauty of nature that touched me that day, and the people I shared the experience with.

It was a beautiful day and a beautiful place. I looked at the lichens and mosses on the rocks and wondered at the rocks themselves, records of years of change with their own stories to tell. I listened to the sound of the small stream running past where we were climbing. Nearby, a beaver dam reminded me of a summer spent clearing canoe routes in northern Ontario as a Junior Ranger. A hummingbird I watched hovering amongst the jewelweed made me think of how awed I had been at the beauty of the iridescent hummingbirds in a Costa Rican cloud forest.

Special memories, a very peaceful place, the warmth of the sun, and the much appreciated cool breezes—I'm not sure what it was but something seemed to sharpen my perception of my surroundings that day. Perhaps I appreciated it all so much because in a few weeks I was going to be somewhere very different: Nicaragua, a country of poverty and conflict, where hope is something people must cling to more tenaciously than I clung to the rocks with my fingertips.

I remember people's smiles that day and their tears, but most of all their determination. Though some found that getting to the top just wasn't important for them, their challenge was just to try. For them there was no reason to get to the top just for the sake of reaching the top. Everyone is different, and I learned to respect that.

I learned that giving support can be just as challenging as doing the climbing, and to

continue to encourage someone who is climbing for over an hour is not easy. Climbing really is a team effort and the job of the belayer, the backup, and the instructor are all necessary to enable someone to reach the top. You don't get all the glory as a belayer, but it's a good lesson in teamwork. Everyone can't be climbing all the time, on a mountain or in daily life; there are always times when we need to hang on to the ropes for someone else for a while.

We sat on the other side of the stream in a shady spot for lunch. It was good to eat, rest and talk about our experiences. As some went back to climb, I sat on an outcrop with a friend and watched. I enjoyed sitting quietly, just watching it; it was a break from the intensity of climbing or assisting others. After a while one of the instructors called over that climbing wasn't a spectator sport. I think I partly disagreed with that, though I was eager to try a couple more climbs.

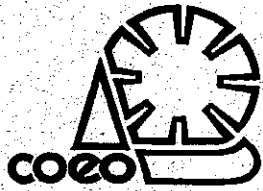
Thoughts running through my mind that day: Would I ever like to teach climbing, and did I have the patience our instructors showed? Would I go climbing again? I would if the opportunity arose, but there are other things I want to try too. It was a lot of fun, and a challenging learning experience, but that day was special and never again will I be able to go climbing for the first time.

What I really learned that day wasn't just how to climb—I learned how to fly.

Special thanks to everyone in the group who made the day such a special experience for me and the leaders at Bark Lake who opened the skies.

I wrote this after participating in the Outdoor Skills Development Course for Adults at Bark Lake Leadership centre in July. I have recently returned from a very interesting experience in Nicaragua and am now heading back to Nova Scotia to live with mentally handicapped adults in a L'Arche Community.

*Fiona van Wissen
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BOP 1X0*



Council of Outdoor Educators of Ontario

Regions Served by COEO

- Far North:** Patricia, Kenora,
Thunder Bay, Algoma,
Cochrane, Sudbury,
Rainy River,
Timiskaming
- Northern:** Parry Sound, Nipissing,
Muskoka, Haliburton,
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County
- Western:** Essex, Kent, Elgin,
Lambton, Middlesex,
Huron, Bruce, Grey,
Dufferin, Wellington,
Waterloo, Perth,
Oxford, Brant,
Halimand-Norfolk
- Central:** Niagara South, Lincoln,
Hamilton-Wentworth,
Halton, Peel, York,
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Peterborough,
Northumberland,
Hastings, Prince
Edward, Lennox and
Addington, Renfrew,
Frontenac, Leeds,
Grenville, Ottawa-
Carlton, Lanark,
Prescott, Russell,
Stormont, Dundas,
Glengarry
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Fees: (circle)

Regular: \$40.00 Student: \$25.00 Family: \$52.00

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Make your cheque or money order payable to *The Council of Outdoor Educators of Ontario* and mail, with this form, to:

COEO
1220 Sheppard Avenue East
Willowdale, Ontario
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Please allow four weeks for processing or change of address.