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AUTHOR Yerkes, Rita, Comp.; And Others

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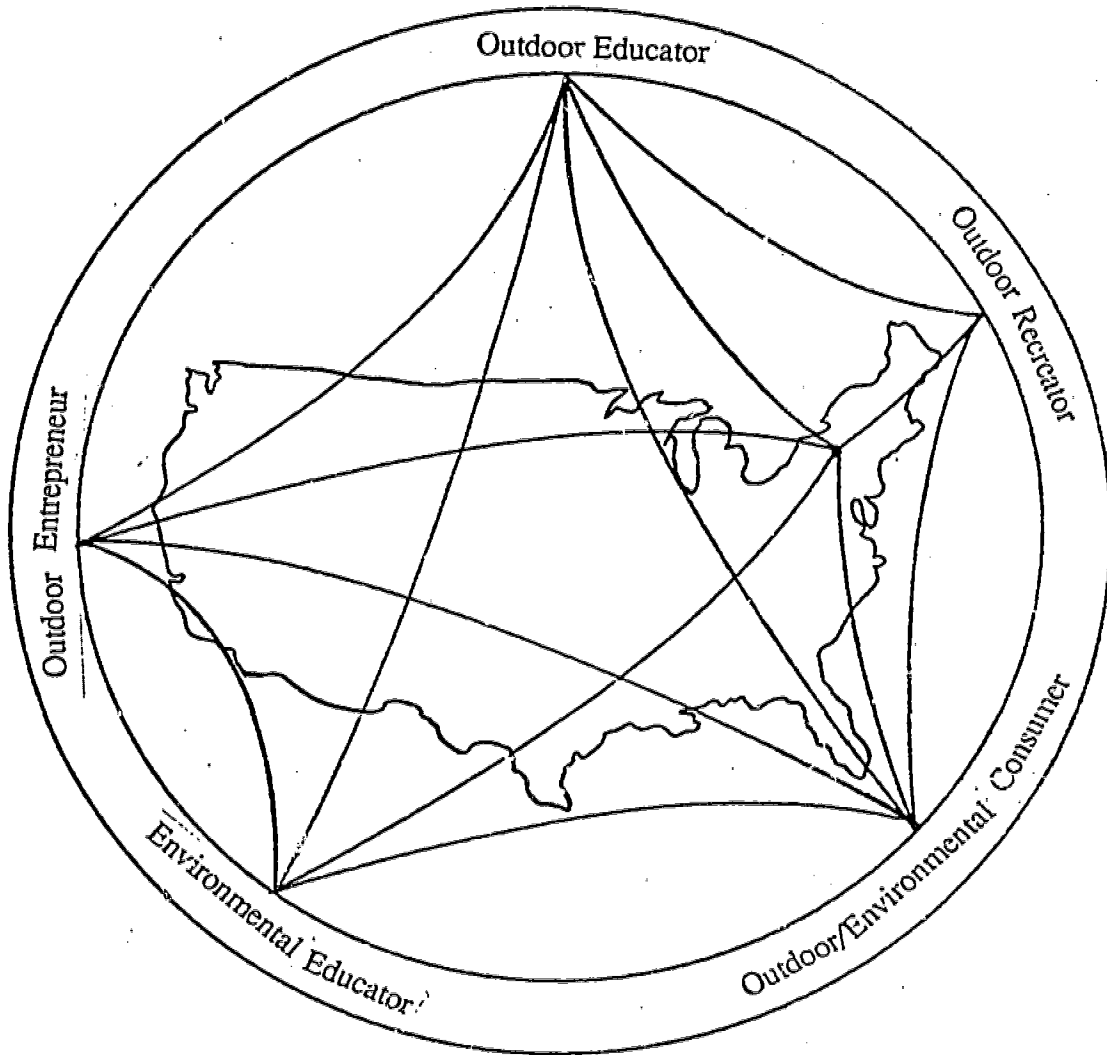
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ABSTRACT

Selected through a refereed process from presentations given by speakers at the "1987 Outdoor Education across America: Weaving the Web" Conference, the content represents philosophy, ideas, program activities, and research of outdoor practitioners and leaders across America. The 25 presentations/workshops are summarized under the broad headings of: philosophy and foundations for education in the outdoors (2 papers), program administration and leadership (5), research implications (8), communication techniques for outdoor programs (3), environmental concerns and concepts (1), and selected outdoor education activities (6). Each citation gives the author's name, address, and telephone number; a summary of the workshops or presentation; main ideas presented in the workshop; and references pertaining to the topic presented. Examples of presentations/workshops included in this conference booklet are: American Environmentalism: Our Artistic/Literary Heritage; Outdoor Education Programs for Older Adults; So You Want To Be a Licensed Outdoor Guide?; Research Issues for Wilderness and Adventure Education Programs; Soft Skills and Outdoor Adventure; The Effects of a Two-Week Adventure Program on Group Cohesion in the Physically Handicapped; Spider Web and Other Educational Initiatives and Games; The Beaver: History, Habitat, Lifestyle; Canoe Basics; and Outdoor Photography for the Practicing Photographer. An alphabetical index of presenters is appended.

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Outdoor Education Across America

"Weaving the Web"

Conference Proceedings

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OUTDOOR EDUCATION ACROSS AMERICA

"Weaving the Web"

Selected Papers, Activities and Resources
From the 1987 National Outdoor Education Conference
(Cortland, NY, October 9-12, 1987)

Compiled and designed by

Rita Yerkes
Co-Conference Director

Ellen Goldberg & Beth Van Overmeiren
Production Assistants

A Cooperative Publication of
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and

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The Coalition for Education in the Outdoors
State University College at Cortland, New York
Aurora University, Aurora, Illinois

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This publication is dedicated to the memory of Harlan "Gold" Metcalf, one of the founders of the New York State Outdoor Education Association.

Appreciation is also expressed for the countless hours of work and support that made this conference a reality. The following members of the "1987 Outdoor Education Across America: Weaving the Web" Conference Committee were central to this task:

Roger Abramson
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Carol DiGregoria
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INTRODUCTION

Outdoor Education Across America "Weaving the Web"

As a spider weaves, its web becomes a pathway of interconnected parts. The web symbolizes parts of a whole, a coalition. In the out-of-doors terrain, weather, flora, fauna, wildlife and people interact as one grand whole: the earth.

Each part is essential... Each professional that works in the outdoors is essential... The outdoor educator, recreationist, environment educator, entrepreneur and consumer are all parts of the web of education in the outdoors across America.

This publication represents selected philosophy, ideas, program activities and research of outdoor practitioners and leaders across America. The content was selected through a refereed process from presentations given by speakers at the "1987 Outdoor Education Across America: Weaving the Web" Conference co-sponsored by the New York State Outdoor Education Association in conjunction with The Coalition for Education in the Outdoors and the State University College at Cortland in Cortland, New York. This publication illustrates that outdoor professionals of various backgrounds can effectively work together to provide quality service for the outdoor consumer.

Education in and for the outdoors is necessary for the survival of our planet and enhancing the quality of human life. We are indebted to the presenters at this conference for their contribution in helping to weave the web of outdoor education across America.

Rita Yerkes, Ed.D., Editor
National Advisory Board Member, ERIC Clearinghouse on Rural
Education and Small Schools.
Professor & Chairperson,
Leisure & Environmental Resources Administration
Aurora University
Aurora, IL 60506

PHILOSOPHY AND FOUNDATIONS FOR EDUCATION IN THE OUTDOORS

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American Environmentalism: Our Artistic/Literary Heritage

Dr. Charles H. Yaple
Associate Professor, Department
of Recreation and Leisure Studies,
State University of New York at Cortland
Box 2000
Cortland, NY 13045
607-753-4968

SUMMARY

The workshop is designed to further participant understanding of the American environmental movement. Particular focus is placed on artistic and literary figures whose work helped to propel conservation/environmental issues into the forefront of American consciousness.

Participants will engage in small group exercises, a discussion session and view a twenty-five minute multiple projector slide/tape presentation titled "American Environmentalism: Our Artistic/Literary Heritage."

MAIN IDEAS PRESENTED IN THE WORKSHOP

The story of American environmentalism is an evolutionary saga stemming from colonial times and beyond. The inspirational works of many artists and writers have significantly contributed to the growth of the conservation/environmental movement.

Many of the celebrated nature writers and artists of the past (Thoreau, Muir, Leopold, Cole, Catlin, etc.) approached their work with a sense of mission fueled by spiritual/religious beliefs.

Artists and writers can have substantial influence in perpetuating the formation of an environmental ethic within the consciousness of a critical mass of humankind.

Understanding one's heritage is of paramount importance in any profession. Outdoor environmental educators have a rich philosophical foundation upon which to substantiate the necessity of their work. Professionals in the field owe it to themselves, and their charges, to understand the thoughts and works of great minds that preceded us. A "web" does not endure without a strong foundation.

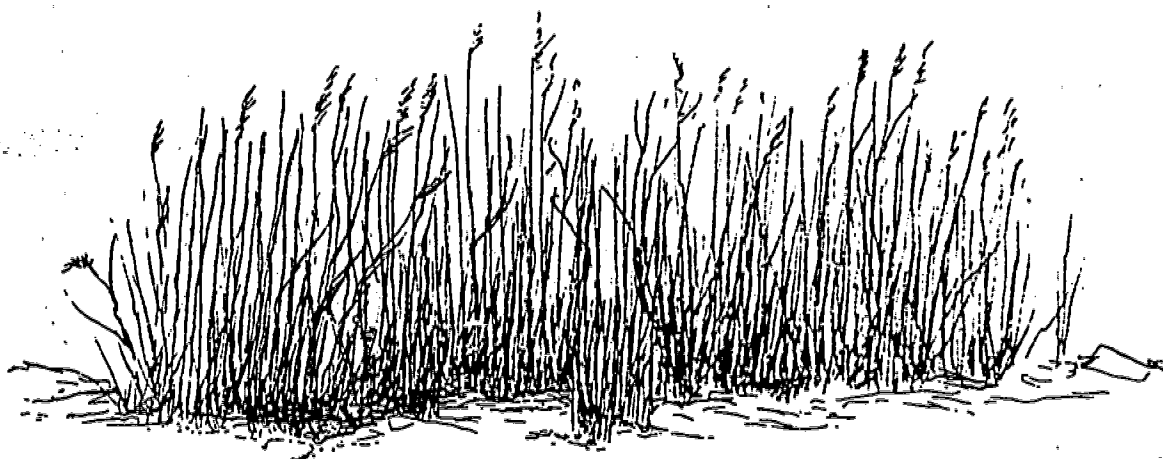
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Modelling the Adventure Experience

Simon Priest
Assistant Professor
Outdoor Education Institute
Texas A&M University
College Station, TX 77843
409-845-3758

SUMMARY

A Definition of Outdoor Education

Outdoor education is an experiential method of learning which is enhanced by the learners' utilization of the outdoor setting, their six senses and three domains of learning. Outdoor education's subject matter is both multidisciplinary and interdisciplinary, and focuses on relationships between people and natural resources. Interpersonal (among group members), intrapersonal (to oneself), ecosystemics (within an ecosystem), and ekistics (between humans and their surroundings) relationships are the four types which have been identified (Priest, 1986).

A Branch of Outdoor Education

Two common approaches to learning outdoors exist: adventure education and environmental education. Adventure education mostly concentrates on the interpersonal and intrapersonal relationships. This approach may use outdoor recreational pursuits, with associated perceived risks, to teach people about themselves and how they relate to others. Environmental education, on the other hand, is primarily concerned with relationships of ecosystemics and ekistics. It inculcates in people an ethical approach to environmental problem solving through value clarification techniques and the modelling of ecological practices.

This workshop is strictly concerned with the adventure half of outdoor education: teaching people about relating to themselves and to others through adventures. The premise to adventure education is that change in groups or individuals comes from direct and purposeful exposure to: Challenge, High Adventure, and New Growth Experiences. The purpose of adventure education is to bring about these positive changes in the form of enhanced self-concept and social interaction. This is often accomplished through a variety of adventurous activities including residential living, outdoor pursuits, ropes courses, and group initiative tasks. The process of adventure education

involves the use of these activities to provide a group or individual with a task to accomplish. The task often involves problem solving and a challenge. This problem solving often requires judgement, cooperation, communication, and challenge. The challenge may take the form of mental, social or physical risk. To maximize safety, the risk is structured in a manner, where the challenge is perceived as being enormously high, while the actual danger is kept quite low. The product of adventure education is personal growth. By responding to seemingly insurmountable tasks, groups or individuals learn to overcome almost any self-imposed perceptions of their capability to succeed. They are able to turn limitations into abilities and, as a result, learn a great deal about themselves and how they relate to others.

What Is An Adventure Experience

An adventure is any experience where the participating individual feels uncertain about the outcome. If people are not sure about their impending success at climbing a mountain, running whitewater rapids, investing money, or asking someone out on a date, then they are about to partake of an adventure.

People are often motivated to adventure experiences because their lives are rationalized, controlled, packaged, and extrinsically rewarding. Their everyday existence lacks the intrinsic benefits adventures provide (Mitchell, 1983).

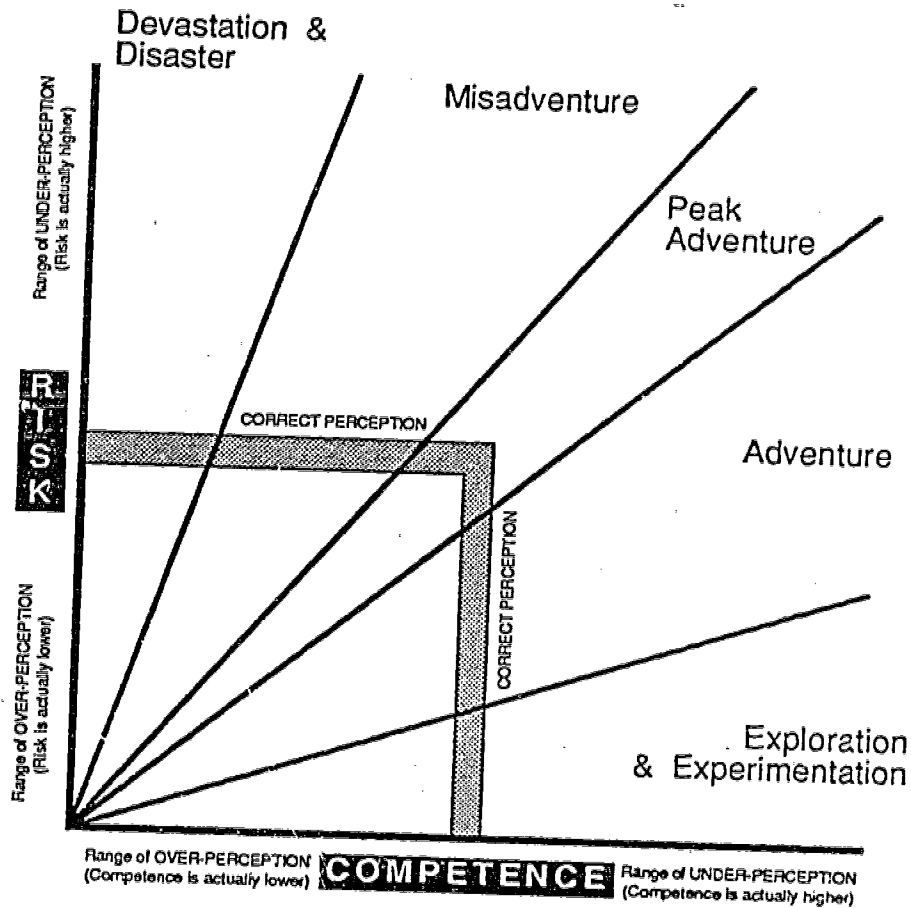
The adventurer is a person who controls surroundings by using capabilities and strategies to influence the uncertain outcome of an adventure. This personality is the antithesis of the one who accepts the outcome of a chance event such as a gambler. Adventurers are definitely not gamblers. They are controllers "escaping," if you will, from a society fraught with rationalized controls, and seeking the benefits of joy and pleasure, inherent in "controlling" the adventure experience for themselves (Mitchell, 1983).

The adventure experience is a function of the situational risk, an individual's competence, and the precise moment in time. Risk is defined as the potential to lose something of value. In the case of a negative adventure experience, this loss may take the form of a physical, mental, or socio-emotional injury. Competence is the ability of individuals to deal effectively with the demands placed on them by the surrounding environment. In any adventure situation, this ability relates directly to skill, knowledge, attitude, behavior, and practical experience aimed at solving problems and avoiding the negative consequences or risk by overcoming the challenge. Time is the dynamic aspect of the adventure experience. From moment to moment, and for any adventure experience, the values of risk and competence are constantly in flux. No adventure is the same for any two people in a certain place at a given time. The adventure experience is situationally specific, individually specific, and chronologically specific.

MAIN IDEAS PRESENTED IN THE WORKSHOP

A Conceptual Paradigm for the Adventure Experience

The Adventure Experience Paradigm is a graphical representation which attempts to relate risk, competence and time of an adventure experience to five conditions of adventure (after Ellis, 1973; Csikszentmihalyi, 1975; and Mortlock, 1984). An example of the model is presented in Diagram 1.



THE ADVENTURE EXPERIENCE PARADIGM
Simon Priest and Peter Martin
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DIAGRAM 1: The Adventure Experience Paradigm

Experimentation and exploration is the condition best suited to the learning skills for novice adventurers. It is a condition where the individual first tests personal abilities at levels of low risk before applying them to more adventurous situations. In the condition of adventure joy is experienced, minimal stress or fear is present as a result of greater risk, and for some competent people, boredom may still exist. Misadventure is a condition where fear and distress are present (perhaps from high risks), where the participant is over-aroused (perhaps from low competence), and where a feeling of anxiety may be experienced. This condition has been further extended to include Disaster and devastation which holds potential for harm, and which includes the possibility of injury or perhaps even death. In the middle, the condition of peak adventure, includes a state of flow, and may be equated to a level of optimal arousal or to a feeling of eustress. It is a condition where risk and competence are perfectly balanced.

Two Values of Risk and Competence

Risk and competence may have two values: real and perceived. The real risk of the situation and the real competence of the individual are the true values arise from the interaction of individual and setting. They are a reflection of this interaction, and a manifestation of the absolute values. Their combination dictates the resultant condition achieved by the adventurer. The individual's perceived risk in the setting and the individual's perceived competence relate to challenge and confidence. These apparent values are based upon subjective assessments of the absolute risk and absolute competence. They influence the goal condition initially sought by the adventurer.

The author's premise is that self-motivated individuals engaging in adventure experiences, will initially aim for the goal condition of peak adventure. By selecting a situation with matched risk and competence, a condition of peak adventure is possible. Individuals set goals on the basis of perceived values of risk and competence. However, the outcome condition is dictated by the real values which result. If perceived values are in tune with actual values, then the resultant condition will be the one which is desired. If misperceptions occur, then although one condition is sought, another may result. Astute individuals who are fully aware of their competence and the situational risk, and who are correct in their perceptions of the real values, are very likely to achieve a peak adventure. However, many individuals commonly underperceive or overperceive their competence and the situational risk at hand. Timid and fearful participants, with low perceptions of competence and high perceptions of risk, may seek peak adventure, but fall short into a condition of exploration and experimentation. On the other hand, fearless and arrogant participants, with high perceptions of competence and low perceptions of risk, will overshoot their same goal and may result in a condition of misadventure. Both

participants enjoy learning experiences which inevitably contribute to the development of greater astuteness.

The Facilitated Adventure Experience

The presenter suggests that the paradigm-related role of adventure education is to move participants toward becoming astute individuals: people who are correct in their perceptions of personal competence and situational risk. Since the condition of devastation and disaster has the potential to injure, and the condition of exploration and experimentation does little to achieve self-actualization, participants seeking peak adventure attempt to avoid these two extremes. The means for avoidance depends heavily upon their perception of personal competence and situational risk: the astuteness of the individual.

If astuteness is the aim of adventure education, then the move toward astuteness may be achieved through facilitated adventure experiences. The facilitated adventure experience is founded on the belief that a qualified, competent, and experienced facilitator will be able to assess the real values of risk and competence to a more accurate degree than will a novice adventurer. Here, the experience will be a safer one, and further reflection aided by the facilitator will enhance the novice's learning.

The facilitated adventure experience includes two steps. The first step involves the facilitator purposely increasing perceived risks, while keeping real risks low. As the novice rises to meet this increased challenge, a greater insight into correct assessment of risk is gained. The second step involves the facilitator purposely creating situations where real risks increase and the novice's perceptions follow suit. The second situation requires growth in competence to meet new risks. Appropriately processed and debriefed, this facilitated adventure experience can lead to astuteness on the part of a novice participant. By first bringing perceptions more in line with real levels; and by then raising real levels of risk to extend the limits of competence, the novice learns through experience and moves a step closer toward astuteness.

In the first phase, it is critical for the facilitators to select activities where the change in risk is strictly a perceived one. It is the participants who must ultimately perceive the risk to be great or minimal. The facilitators must be certain that the real risks remain unchanged and that these are kept to reasonable levels. Most adventure educators would argue that the phase one is ethically acceptable. This phase is the common mainstay of our educative process. Phase two, however is a different story.

In the second phase, the concern of raising real risks comes to the forefront of discussion. In order for the participants to increase their competence (especially skill and confidence), greater risks are necessary. Because these people are astute, they will not be fooled by changes in perception.

They desire, and will ultimately seek, the real thing! There is one group of educators who see nothing inappropriate with manipulating the real risks, while there are similar numbers of other educators who claim this approach may result in unreasonable consequences.

Regardless of whether phase two follows phase one, each facilitator has the responsibility to aid participants in reflecting on their adventure experiences. Additionally, participants should have the right to pass if their perceptions of the risk are so overwhelming as to hamper their competence.

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Program Administration and Leadership

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You Can Do It Too!

Merry Moiseichik
Associate Instructor
Indiana University
909 Eastside Drive
Bloomington, IN 47401
812-336-3485

SUMMARY

School camping experiences can provide a plethora of adventure, knowledge, and experiences that students can carry with them through life. It can enhance the total curriculum and be a project where the students will be involved, motivated and working throughout the whole academic year. The purpose of this workshop is to aid an interested classroom teacher in starting such a program in a school system where it does not already exist. No increases in school budget are necessary to implement this program and learning gleaned by the students is exciting and well worth the work.

From this workshop a working knowledge should be gained on how to set up a camping program from scratch. The presenter is using the knowledge gained while creating such a program in Moravia, New York. The sixth grade students there have a three day camping program for which they earn money and run themselves. Workshop participants will not only learn how such a program can be run but will also discuss the potential problems and roadblocks one is likely to encounter.

MAIN IDEAS PRESENTED IN THE WORKSHOP

The following details must be considered and will be discussed throughout the course of the workshop.

1. Proposal to the school board
2. Goals and objectives of the program
3. Budget
4. Fund raisers
5. New York state laws
6. Camp selection
7. Food service
8. Scheduling
9. Necessary forms
10. Instructions and instructors
11. Getting volunteers, especially parents to help
12. Evaluations
13. Problems and road blocks

ACTIVITIES

This program is unique in the fact that it is self contained. The students as a group earn their own money to go. They do all the planning including making menus and going grocery shopping themselves.

At camp the same process is continued. Outside resources may aid in class instruction but the camp living experiences are all done by the children. Cooking is done by the students as is the serving and cleaning of the dishes. Parents are the supervisors and chaperones.

With such a program design there is very little cost. The students feel they are a part of the experience from the beginning to the end and it is not a program that is taken for granted.

All classes are taught outside with nature and the outdoors as the center for learning. Special teachers; physical education, art, and music teachers are all involved in teaching at the camp. Parents that feel they have expertise to share are also encouraged to teach workshops of small groups.

Upon completion of the camp experience, when the students are back in the classroom, there is a wealth of learning motivated by the camping trip. Post trip activities keep the students on a "high" often until the end of the year.

The workshop will discuss many of these issues in detail and also canvass some other programs and how they are being run throughout the country.

Many instructors and teachers have considered running a camping program for their students. They do not do it however for a variety of reasons. Many of these reasons can be eliminated through this workshop. It does not take a lot of money. It does not take a lot of expertise about nature. It does not take a fancy camp and lots of exotic food. Anyone can do it. Anyone who is interested and dedicated to outdoor education throughout the country can spread the love of nature across America if they have the information and guidelines to do so.



Outdoor Education Programs for Older Adults

Dr. Helen "Susie" Knierim
Gerontology Program Coordinator
Slippery Rock University
Slippery Rock, PA 16057
412-794-7731

SUMMARY

One of our society's most rapidly expanding segments -- the older adult -- is ready and eager to participate in outdoor education programs. There are three primary reasons for developing outdoor education programs for individuals over 60 years of age:

1. They enjoy and want to participate in the out-of-doors.
2. Adults over 60 years are the fastest growing segment of the population. Nationally, they make up 11-12% of the population. It is projected that by the year 2000, one in four individuals in the U.S. will be over 60 years of age.
3. Most adults in this age group are retired and free to participate in programs during the day on Monday through Friday when other people who might be involved in outdoor education programs are occupied in school or work.

This workshop will be divided into two parts:

1. Programming to meet the special needs of the older adult. Camp Kon-o-Kwee, the Pittsburgh YMCA camp, will be used as a specific example of a facility serving over 4,000 older adults a year in outdoor education programs.
2. Using the older adult as a valuable resource to enhance staffing potential.

MAIN IDEAS PRESENTED IN THE WORKSHOP

Programming to meet the special needs of the older adult

The unique characteristics of this age group must be considered first before planning the program. The changes that occur in all of us as we grow older are caused by one or more of

the following factors. These different causes of "aging characteristics" result in a great range of differences in the older adult.

1. Changes that are caused by simply growing older. These changes must occur in all people, must come from within the body, be progressive in nature, and debilitating or, i.e., makes a person less able to cope with the environment.
2. Changes that are caused by heredity.
3. Changes that are caused by our environment such as noise and air pollution.
4. Changes caused by our lifestyle in the younger years. This is the one change we have the most control over.

These changes result in certain characteristics found in the "average older adult." Several that are especially important in planning outdoor education program are listed below.

1. They like to know what the schedule is and will expect events to run on schedule. In fact, they will probably arrive early as they do not like to rush.
2. The average 70 year old will have experienced some sight and hearing loss. Avoid lots of background noise and look directly at participants when giving instructions. To help with the vision problems, use large lettering and contrasting colors on signs and educational materials.
3. Many older adults will have some type of chronic illness but it will not slow down most of them. It is important to know what the medical problems of your group are in order to plan appropriate programs.
4. Muscle strength and endurance will be less than with younger participants. They will probably appreciate a place to sit down when you stop to talk on a long hike. Selection of a smooth terrain for a hike will also be appreciated as the ability to maintain balance becomes a little more difficult with advancing years.

As you work with this population, you will become aware of many more unique characteristics.

Active older adults can be located by contacting several different agencies/groups. Each county has an Area Agency on Aging (AAA). The AAA is the best place to identify the leaders in the older adult community. Many AAA's run Senior Centers and many other types of programs such as a hot meal service, legal service, transportation, etc.

The American Association of Retired Persons (AARP) will probably meet once a month somewhere in your community. This group represents older adults who are generally eager to be active, take many trips, have all types of speakers come to their meetings and probably would be your best source for participants.

You will also find senior citizens in retirement buildings, community recreation programs, anywhere bingo is placed, church groups and in special interest groups in the community.

Inactive older adults will be found in day care centers and long term care facilities. Just because they are "inactive" does not mean they are not interested in outdoor education programs. This is a good group to combine with the young people in your program.

ACTIVITIES

Planning Programs

Facility requirements: The older adult will appreciate privacy in sleeping quarters. Primitive living is okay but many have to "use the facilities" in the middle of the night so an indoor toilet is an important feature.

Staffing: The American Camping Association (ACA) recommends one staff for 20 campers over 19 years. All staff should be certified in CPR.

Schedule: Plan a schedule with plenty of time to move from one program to the next. They will be eager to do a lot of activities but allow time to "smell the roses."

Activities: Ask them to help with planning the program. They will enjoy the same type of activities that people of all ages enjoy in the out-of-doors.

An example of a nation-wide program that has become very popular is Elderhostel. Many Elderhostels are held at environmental education facilities. Each state has a director of Elderhostels and that is the person to contact if you are interested in initiating a program. The program emphasis in the Elderhostel program is on educational experiences.

Costs: An example of cost for a three day (Wednesday-Friday) experience: Cost for lodging and seven meals per person; \$71.00. Senior citizens paid \$21 and AAA sub-contractor paid other \$50 plus transportation cost. AAA provided two staff and camp provided three staff for 100 senior citizens.

An example of a program for older adults that has been in operation for nine years is at Camp Kon-O-Kwee, the Pittsburgh YMCA camp in Fombell. In 1980, they constructed a winterized lodge for housing senior campers and now service about 4000 senior adults a year.

Using Senior Adults as Staff

Older adults can be a valuable resource to enhance the regular staff. The present group of senior citizens were raised with a strong work ethic and would like to be doing something useful. They also live on a limited income and would appreciate an opportunity to earn a little money. The talent available in this age group is unlimited. Determine what the staff needs are and then approach one of the senior adult groups mentioned earlier to find someone with that expertise.

Senior adults are eager to fill their leisure time with creative, challenging, and meaningful experiences. Camping and outdoor education programs can meet this need. You can help enrich the lives of older adults and they can in turn help others.

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So You Want to be a Licensed Outdoor Guide?

Jack K. Drury
Assistant Professor and Director of
Wilderness Recreation Leadership
North Country Community College
20 Winona Avenue
Saranac Lake, NY 12983
518-891-2915

SUMMARY

An explanation of the New York State Outdoor Guide Licensing Program including; who needs to be licensed, what are licensing prerequisites, what are the testing procedures and how much does it cost.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. History of the New York State Outdoor Guide Licensing legislation.
 - 1) Guiding flourished in New York's Adirondack mountains in the early 19th century as surveyors, prospectors and sportsmen needed help in traversing the region.
 - 2) Adirondack Guides Association formed in 1891
 - 3) New York State officially licenses guides in 1918
 - 4) 1970's showed a renewed interest in the guiding profession
 - a) \$2.00 for a guides license
 - b) No prerequisites
 - 5) New York State re-evaluates procedures for licensing guides in 1980.
 - 6) New York State Outdoor Guides' Association incorporated in March of 1983.
 - 7) New licensed guide law signed by Governor Mario Cuomo in November of 1985.
- B. Current Guide Law
 - 1) Highlights of the Law
 - a) It defines guide as: "a person who offers services for hire part or all of which includes directing, instructing, or aiding another in fishing, hunting, camping, hiking, white water canoeing, rafting or rock and ice climbing.

- b) It determines six categories of guiding activities.
 - 1) Hunting
 - 2) Fishing
 - 3) Camping
 - 4) Hiking
 - 5) Whitewater canoeing/rafting
 - 6) Rock or ice climbing
- c) It requires all persons involved in guiding to be licensed except:
 - 1) Persons who already possess a USCG OR NYS Pilots License.
 - 2) Employees of childrens camps.
- d) It provides for a five year licensing period and a fee not to exceed \$200. for that period.
 - 1) \$25. application fee
 - 2) \$75. either to take the test or if you pass the test
 - 3) \$20. for each speciality area you are licensed for
- e) Guides must be at least 18 years old.
- f) Prospective guides must pass a test prepared by DEC

C. Licensing Procedures

1. Minimum prerequisites

- a) American Red Cross Standard First Aid or equivalent
- b) American Red Cross CPR or equivalent
- c) American Red Cross Basic Water Safety
- d) Additional prerequisites for specialty licenses
 - 1) Hunting license
 - 2) Fishing license
 - 3) Whitewater activities

D. Implementation Timelines

Certification of individuals in outdoor fields is a hot and controversial topic. New York State has approved the concept of certification by certifying outdoor guides. It is hoped that by sharing what New York is doing we can provide a better service to the consumer and help "Weave the Web".

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Wilderness Leadership: The Decision Making Process

Bruce F. Bonney
Teacher, Morrisville-Eaton Central
School and Owner/Operator,
Wilderness Education Services
35 Milford Street
Hamilton, NY 13346

Jack K. Drury
Assistant Professor and Director
of Wilderness Recreation Leadership
North Country Community College
20 Winona Avenue
Saranac Lake, NY 12983
518-891-2915

SUMMARY

A presentation of how Wilderness Education Association affiliate North Country Community College teaches, practices, and reinforces quality decision making.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. The Wilderness Education Association (W.E.A.)
 1. A non-profit educational organization which accredits colleges and certifies successful graduates of a rigorous outdoor leadership curriculum taught within 28-35 day experiential field courses.
 2. The W.E.A. curriculum is offered through the National Standard Program for Outdoor Leadership Certification (N.S.P.O.L.C.), a college level curriculum designed for individuals who lead and/or administer wilderness treks as part of their job.
 3. The program is offered through 20 cooperating college affiliates.
 4. The goals of the W.E.A. National Standard Program for Outdoor Leadership Certification is to develop and certify leaders who are able to:
 - a) Exercise sound judgment in a variety of outdoor environments and conditions.
 - b) Safely lead others in the wild outdoors.
 - c) Teach others to use and enjoy the wilderness with minimum impact.

- d) Demonstrate a basic standard of outdoor knowledge and experience.
- B. The Decision Making Process
 - 1. Definition
 - a) A process of arriving at decision through an analytical step by step process.
 - 2. The Process
 - a) Identifying the decision to be made
 - b) Clarification
 - 1) Getting the facts
 - 2) Assumptions
 - c) Analysis
 - 1) Constraints
 - 2) Dynamics
 - d) Options
 - 1) Pros and cons
 - 2) Contingencies
 - e) Action
- C. Teaching Decision Making
 - 1. Experience
 - a) Course participants take active roles in the decision making process and take responsibility for the making of decisions and carrying them out.
 - 2. Identify
 - a) Participants identify the decisions made by themselves and others through:
 - 1) Debriefings are conducted on a daily basis
 - 2) Writing in their journals
 - 3. Analyze
 - a) Was the decision an appropriate one?
 - b) Given similar circumstances would the individual make the same decision?
 - c) How was the decision making process utilized?
 - 4. Generalize
 - a) What was learned?
 - b) What conclusions can be drawn?
 - c) How can a principle be stated which will help in a similar situation?
- D. Evaluation of Decision Making Ability
 - 1. Instruction Evaluation-Instructors evaluate participant performance the following ways:
 - a) Participant evaluation form
 - 1) Instructors daily observations include:
 - a. Decisions made
 - b. Consequences of the decisions
 - c. Self evaluation of decisions
 - d. Growth in decision making, i.e., demonstration of learning from previous experiences

- 2) Observations are recorded on tape and transcribed and shared with students at least once during the first half of the course.
- 3) The participant evaluation form is filled out at the midpoint of the course and at the end of the course.
- b) Debriefings
 - 1) Instructors have input during daily debriefings with participants as immediate reinforcement of decision making competencies.
2. Peer Evaluation
 - a) Participants utilize the participant evaluation form at the midcourse to evaluate peers through a group evaluation process.
 - b) Debriefings
 - c) Participants complete a peer evaluation at the end of the course.
3. Self Evaluation
 - a) Journals
 - 1) Participants maintain a journal on decisions made during the course and an evaluation of those decisions.
 - 2) Journals are read by staff at the midpoint and at the end of the course.
 - 3) Debriefings

Leadership and decision making are buzz words in today's society which is in need of leaders at all level of life. The Wilderness Education Association is helping to "Weave the Web" by providing a leadership training role and sharing this information with other professionals.

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Legal Liability: Implications for Outdoor Adventure Activities

Dr. Norman L. Gilchrest
Associate Professor of Health,
Physical Education and Recreation
Baylor University
Waco, Texas 76798
817-755-3505

SUMMARY

This seminar focuses on the implications legal liability has for outdoor education/recreation, with emphasis being placed on understanding the current legal climate, basic legal principles, definitions, negligence, legal defenses, insurance, the use of forms, and sound teaching and leadership practices.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. Reasons leaders of outdoor adventure activities should be interested in legal liability
 1. Moral reasons
 2. Practical reasons
 - a) The current legal climate
 - b) "Deep pocket" legal approach
 - c) The possibility of not being able to have a program or activity
 - d) The current liability insurance climate (National Recreation and Park Association [NRPA], 1986)
- B. A comparison of legal liability exposure in teaching outdoor adventure activities and other physical education and recreational activities
 1. Degree of risk--The precautions one must take increase as the risks in a particular activity increase.
 2. Skill of the participant--As the skill level of the participant increases, the standard of care required decreases.
- C. Basic legal principles
 1. The right of people to live their lives free from damage by others
 2. The responsibility of persons who cause damage through their negligence to make whole the injured party to whom they had a duty

- D. Definitions: liability, negligence, tort, plaintiff, defendant, trespasser, licensee, invitee, attractive nuisance, and foreseeability (Bailey & Matthews, 1984)
- E. The ingredients (elements of negligence) that must be present for a tort to have occurred
1. There must be an injury, loss, or damage.
 2. The defendant must have had a duty to the plaintiff.
 3. The defendant must breach the duty owed to the plaintiff. He must fail to conform to the required standard of care owed the plaintiff. (Can negligence be established?)
 4. There must be a causal connection between failure to provide adequate care (commission or omission) and the resulting injury. (proximate cause) (Appenzeller, 1970, p. 12)
- F. Some legal defenses
1. Proof that one of the elements of negligence is not present
 2. Assumption of risk
 3. Act of God (vis major)
 4. Contributory negligence
 5. Comparative negligence (Appenzeller, 1980, pp. 14-17)
- G. The place of insurance in legal liability
1. Self insurance
 2. Commercial insurance
- H. The value of obtaining a good attorney in the event of a lawsuit
- I. Miscellaneous points and tips
1. Choice of activities
 2. Proper instruction
 3. Proper supervision (Appenzeller, 1975, pp. 189-215)
 4. Acquisition and maintenance of equipment appropriate for the task. No participant assumes the risk of unsafe equipment. Poor quality equipment is a large liability risk.
 5. Acquisition and maintenance of appropriate facilities (Christiansen, 1986)
 6. Appropriate transportation
 7. Appropriate skill level
 8. Appropriate physical conditioning (Henderson, 1985, p. 45)
 9. Documentation
 10. Stay current
 11. Staff training
 12. Procedures to follow when injuries occur
 13. Length of time to keep accident reports/records

14. Rules and regulations for a particular activity--can be a blessing or a curse. A teacher can be held liable for not establishing rules, and he can be held liable for establishing rules and not following them. (Appenzeller & Ross, 1981, p. 1)
 15. Public relations
 16. Forms--information gathering; record keeping
 - a) Information
 - b) Medical
 - c) Parental permission
 - d) Parent and/or student information and acknowledgment form
 - e) Releases of legal liability
 - f) Agreement to comply; acknowledgement that the participant perceives, understands, and appreciates the risk
 - g) Accident reports
 - h) Other
- J. Balancing liability exposure of leaders and sponsors of outdoor adventure activities with the needs of children and adults for such activities

Outdoor educators across America are bound by common concerns to which legal liability relates: concern for the safety of students/participants, availability of programs and activities, interest in providing the best programs possible, and financial safety and security for leaders and sponsoring institutions and agencies.

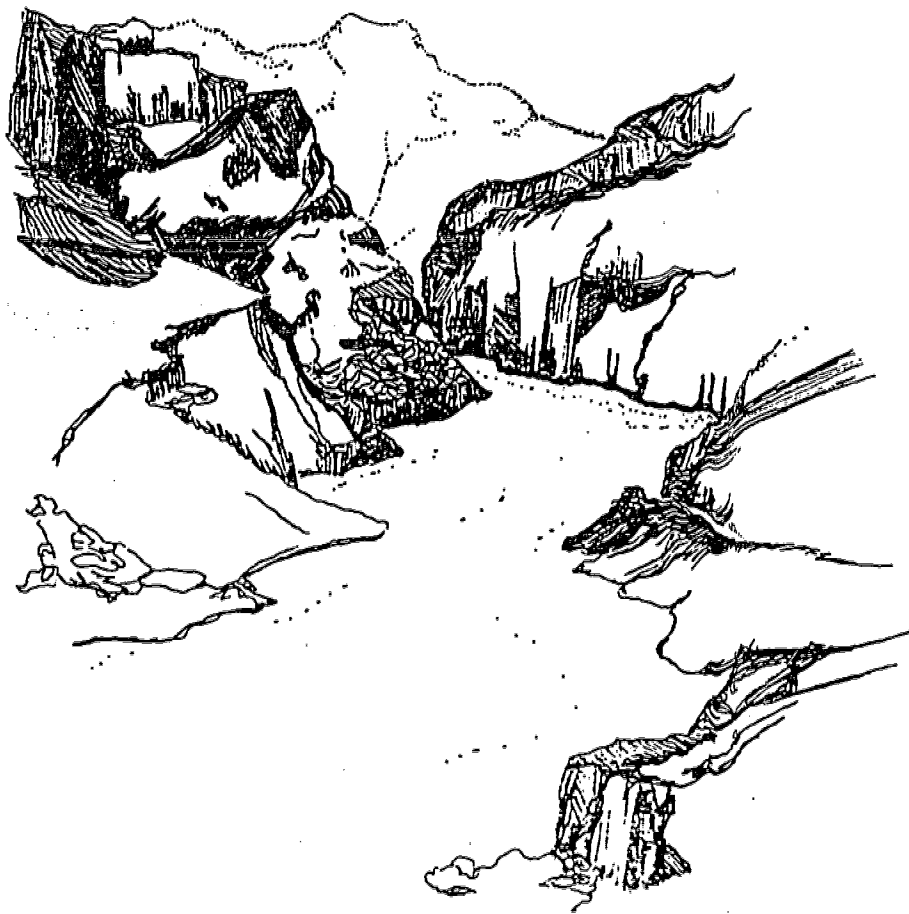
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Research Implications

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Exploration of Issues for Outdoor Adventure Related Research

Camille J. Bunting
Assistant Professor
Outdoor Education Institute
Texas A&M University
College Station, TX 77843
409-845-3758

The credibility of any discipline or program is based on a number of factors, one of which is how well all of the components and intricacies of the discipline are understood. Much of this understanding is often based on well designed systematic research. Adventure education is no different. If it is to be fully accepted as a valuable educational method, then a quantlet of research must be expeditiously carried forward. Fortunately, there have been many in our field that have recognized the importance of the research endeavor and have made significant contributions. The task now at hand is to synthesize what has been learned from previous investigations, identify general topic areas of major concern, and in light of the past, recognize specific questions for future study that are of greatest significance to the practitioner.

This presentation attempts to begin this process. The general areas selected for consideration are: wilderness and adventure education programs, outdoor adventure leadership, soft skills and outdoor adventure, and the physiology of adventure. For each area there will be a discussion of past research, the implications for adventure education, and future directions for investigation.

Research Issues for Wilderness and Adventure Education Programs

Michael A. Gass
University of New Hampshire
Durham, NH 03824
603-862-2070

In understanding the various issues for research in wilderness and adventure education programs, three central themes exist. These themes are:

1. The areas and issues of research critical for the development of these fields.
2. The difficulties of researching these areas and how these problems can be overcome.
3. The methods of interpreting, communicating, and disseminating research on these programs for use by practitioners.

The purpose of this paper is to outline these issues in adventure education/wilderness programs and provide a forum for discussion.

1. Important areas of research in adventure education and wilderness programs
 - a. Amount of transfer - One of the greatest concerns of these programs has been their use for the participant once the experience is completed. The value of many programs is often measured by their ability to transfer the effects of their program into the environment to which the participants return. This area needs to receive a greater focus of research.
 - b. Lasting effects - Some of these programs have been criticized as having short term effects on participants, and much of the research in these areas has been on immediate program outcomes. Investigation needs to be conducted to determine the long term positive or negative influence that these programs have on their participants.
 - c. Linking outcome measures to program components - There has been very little research into the relationship of certain program elements to the overall effectiveness of an entire program. The length of courses, type and mix of program activities, and method of instructor teaching/intervention styles all need to be

- evaluated for their relationship in achieving the goals of programs.
- d. Analyses of cognitive and psychomotor as well as psychosocial effects on participants of programs are needed. Much of the research in the past has been on the psychosocial benefits of these programs. While this type of investigation needs to be expanded, programs also need to investigate their effects on the cognitive and psychomotor development of their participants.
 - e. Analysis of specific areas of psychosocial development - Adventure education and wilderness programs have often used the measurement of general psychosocial characteristics (e.g., self-concept scores) to evaluate program effectiveness. The results of using such measurements have generally been unproductive. Most psychosocial instruments are designed to resist the influences of experiences that are short term and intensive, which often constitute the structure of most adventure education and wilderness programs. Programs should look to evaluate specific behavior changes (e.g., cooperation, trust) rather than general attitude measures that incorporate a variety of behaviors.
2. Research difficulties in wilderness and adventure education programs
- a. Definition of terms in the field - There are a variety of terms that are used in these fields, each having several definitions depending on the use by the individual or the program. These uses can limit the generalization of results from one program to another. Researchers and programs using support from past investigations need to understand the operational definition of the research they are utilizing to avoid potential difficulties.
 - b. Use of affective measures - Most investigations have been in areas involving "descriptive" research instruments (e.g., the use of surveys to measure attitudinal changes) with lower levels of reliability and validity. Programs should look to improve the validity and reliability of their analyses by looking at specific behavior changes of participants as well as improving the strength of the measures they currently use.
 - c. Lack of power in research designs - While many programs provide experiences that have strong influences on their participants, many of the research techniques used to measure these influences fail to demonstrate the actual results that occur. This inability, or "lack of statistical power" can be corrected through a

number of statistical procedures. Some of these procedures include:

- increase the number of subjects involved in the study,
- use lower alpha levels (e.g., .05, .10) when appropriate,
- increase the reliability of the measures used,
- use one-tailed tests when appropriate,
- provide as strong of a program as possible, and
- use appropriate statistical measures and research designs.

d. Reduce the internal validity threats in experiments

- Most researchers and programs do not have the luxury of randomly selecting individuals to participate in their programs and find themselves utilizing quasi-experimental research designs. The problems of using this research can be reduced by using statistical techniques such as comparison groups, stratification, covariation, bias checks, etc.

e. Recognize the effect that the instructor has on influencing the results of the measures

- The person leading the adventure experience can have an extremely powerful effect on the results of the program being measured. Measures must be taken to account for these influences and remove them from affecting program measurement. (Unless this is what the program is trying to evaluate).

f. Research that has been conducted tends to remain isolated

- Many research efforts that have been conducted in the field remain isolated or "one-shot" attempts at program analysis. Effort and emphasis needs to be placed in the continual research and development of adventure education and wilderness programs. It is only through this type of process that the development of instruments and efforts that can measure the intricate outcomes of these programs can occur.

3. Communicating and disseminating research of adventure education and wilderness program to practitioners. One of the main problems in education in the outdoors has been the lack of communication and application of research once it has been conducted in the field. Many practitioners have held a certain "distaste" for research when it cannot be utilized to add to a program's credibility and validity or analyze certain areas of a program's curriculum. Some of the factors that might enhance the translation of research knowledge into actual field practices include:

- a. Identify areas needed to be researched and focus the efforts of investigators on these topics - there often is a lack of communication between those individuals conducting research and the practitioner. Efforts must be made (e.g., through conferences and professional journals) to identify research areas of need in the fields of adventure education.
- b. Identify funding sources to support research on areas vital for the development of adventure education - Very little effort is actually put into researching adventure education and wilderness programs. Several funding sources do exist that focus on researching the effects of these programs on various populations (e.g., grants for researching the effects of such programs for behaviorally disturbed adolescents through the Department of Education). Steps must be taken to identify supportive organizations and agencies.
- c. Educate practitioners on the value and potential role that research can play in the support and development of their programs - The role of research has not been a major factor in the development of wilderness and adventure education professionals. It is understandable that practitioners might feel a bit hesitant in supporting, using, or participating in the research of these programs. Efforts must be made to alert the practitioner of the benefits of a well designed and implemented research program (e.g., through professional meetings and journals, clear and well written articles, workshops, educational programs) in a manner that is understandable.
- d. Acknowledge the differences between those problems that can be researched and those that cannot - Research obviously is not the panacea for every issue in the field of adventure education. Practitioners as well and researchers must understand the limitations of statistical analyses. Those areas that can be analyzed objectively can be explored through well designed research. Those issues that are subjective must be resolved through critical professional dialogue and processes.

Past, Present and Future Research in Outdoor Adventure Leadership

Simon Priest
Texas A&M University
College Station, TX 77843
409-845-3758

For any topic, a review of past research helps build a foundation upon which to base future study. In the case of outdoor leadership past studies have been mostly descriptive in nature, utilizing survey-based methods. Several works, predominantly concerned with outdoor leadership competency and preparation or certification methods, have attempted to identify "what" it takes to be a competent outdoor leader and "how" best to prepare such a leader. Arranged more or less chronologically, their conclusions are summarized in this paper.

In the late 1970's, the issue of outdoor leadership certification was at the forefront of discussion as the move to certify outdoor leaders had begun. At that time, Senosk (1977) surveyed 148 directors or duly appointed officials of outdoor pursuit organizations in the United States. She inquired about the current status of required certification and found that, in 1976:

- 1) 70.1% of respondents had no certification program,
- 2) 60.4% of respondents had no plans to initiate one,
- 3) 60.1% of respondents expressed no need for one, and
- 4) 82.4% of respondents did not approve of government intervention at any level (p. 57-59).

Using a Delphi technique, Cousineau (1977) sampled 113 outdoor adventure educators in Ontario, Canada on the same topic. He concluded that "the total population of respondents seemed to indicate a desire for a certification system" (p. 132) within the province of Ontario only.

In the early 1980's, research interests turned toward discovering a recipe for creating the effective outdoor leader. Sirois (1980) examined personality traits of outdoor leaders. Later work by Riggins (1985) expanded on the area of personality, but several early studies approached outdoor leadership research from the competency based point of view.

Seeking a Delphi Consensus, Green (1981) surveyed 61 outdoor leaders in the Pacific Northwest United States and developed a college course curriculum for land based outdoor pursuit leaders based on the leader's responses. Among his conclusions, Green reported that knowledge of emergency medical techniques and outdoor living skills are critically important to

outdoor leaders of land-based outdoor pursuits, but should be obtained prior to their involvement in an outdoor leadership course. He further listed the ten topics of highest priority for inclusion in such a course:

- 1) risk management plans,
- 2) small group dynamics,
- 3) liability considerations,
- 4) outdoor leadership methods,
- 5) judgement,
- 6) minimum impact practices,
- 7) decision-making
- 8) assessment of group capabilities,
- 9) assessment of individual capabilities, and
- 10) outdoor leadership objectives (p. 52).

That same year, Swiderski (1981) concentrated on surveying 148 outdoor leaders in the western portion of the United States of America and found important differences between regions on some outdoor leadership competencies. He noted differences among regional respondents regarding such competencies as snow or ice travel and off-trail navigation. In addition, he reported the top ten competencies important for outdoor leadership as being:

- 1) exercise good judgement and common sense,
- 2) handle potential safety problems,
- 3) foresee and prepare for accident situations,
- 4) prevent illness and injury,
- 5) teach about environmentally related injuries,
- 6) follow a personal wilderness ethic,
- 7) generate positive attitude through personal actions,
- 8) demonstrate minimum impact camping techniques,
- 9) recognize own limitations, plan accordingly, and
- 10) recognize the indicators of physiological and psychological problems (p. 107).

Again in that same year, Buell (1981) covered all of the U.S.A. and some parts of Canada by surveying 120 supervisors, educators and leaders, on a list of approximately two hundred important competencies for outdoor leaders. He mentioned that respondents to his survey did not rank any national certification programs as essential to outdoor leaders, but nonetheless, he added his top ten competencies for outdoor leaders to the growing list:

- 1) design and use a first aid kit,
- 2) knowledge and skill of first aid and group safety,
- 3) possess the necessary physical fitness,
- 4) limit activities to leader and participant capabilities,
- 5) anticipate problems and act to prevent harm,

- 6) provide the necessary standard of care,
- 7) be able to apply physical and emotional first aid,
- 8) develop and communicate safety systems or procedures,
- 9) select and implement the necessary logistics, and
- 10) carry out appropriate staff pre-planning (p. 102).

A few years later, Priest (1984) surveyed 189 administrators and leaders in attendance at the eleventh annual conference of the Association of Experiential Education, held in 1983. He concluded that respondents felt certification of outdoor leaders was favored only if limited to certain skills. He confirmed the findings of earlier studies and presented yet another top ten list of outdoor leadership competencies:

- 1) ability to anticipate possible accidents,
- 2) wilderness first aid skills,
- 3) awareness of small group dynamics,
- 4) ability to clearly identify the problem at hand,
- 5) ability to evaluate probable natural hazards,
- 6) ability to foster group cooperation, communication, trust,
- 7) ability to provide opportunity for personal growth,
- 8) proficiency in technical land-based activities,
- 9) proficiency in technical water-based activities, and
- 10) ability to prepare accident response plans (p. 36).

Confirming the work of Green (1981), Raiola (1986) developed his own curriculum for an outdoor leadership preparation program:

- 1) leadership style,
- 2) judgement (objective/subjective)
- 3) trip planning and organization,
- 4) environmental issues,
- 5) risk management,
- 6) instructional principles,
- 7) navigation,
- 8) group dynamics,
- 9) nutrition, and
- 10) field experience.

In a later international study, Priest (1987) surveyed 169 experts from the five nations of Australia, Canada, Great Britain, New Zealand, and the United States. Although important national differences were found, and although little support was shown for certification of only the "technical" skills, his top ten components of outdoor leadership were listed as:

- 1) safety skills,
- 2) judgement based on experience,
- 3) awareness and empathy for others,
- 4) group management skills,
- 5) problem solving skills,
- 6) instructional skills,
- 7) technical activity skills,
- 8) flexible leadership style,
- 9) motivational philosophy, and
- 10) environmental skills (p. 103).

In the late 1980's, a tendency toward determining the best methods for training and assessing outdoor leaders is appearing. Following on the early work of Easter (1979), who determined the best indicator of a leader's competence is the assessment of a master trainer, Priest (1987) asked international experts about their choices for training and assessment methods. Preferences for including a practicum experience, for training by field trips, and for assessment by program trainers and oneself were presented as majority opinions in all nations.

Phipps' (1986) study demonstrated that a systematic approach to outdoor leadership training, based on situational leadership theories, brought about positive changes in leader behavior. His field work tested a unique and personal teaching process during month long Rocky Mountain expeditions with outdoor leadership candidates. He looked closely at the dynamics of decision making in small groups and found that a relationship existed between the effectiveness of the leader and the positive perceptions of the group toward both decisions and group dynamics.

Current and innovative research by Cain (1987) is paving a path for the future. At the time of this presentation, he was carrying out a Delphi Consensus with 25 North American experts working toward agreement on the question of "can judgement be developed in outdoor leaders?" Initial results indicate that the experts believe that it can and also believe that a variety of methods, activities, and groups for the leader to work with is the key to such development. In short, a based of intensive and extensive experiences is a critical ingredient for any outdoor leadership preparation program.

In summary, the evolution of outdoor leadership research can be seen to trace a path from certification concerns, through key competencies, to methods of training and assessment. We have covered all the bases regarding the composition of effective outdoor leaders, and now can begin to concentrate more on the way

to prepare them. As with any new field, our studies thus far have described outdoor leadership; and now that we have learned to walk, our research efforts should begin to draw inferences about which approach to outdoor leadership is best. Future trends in this area are likely to be away from outdoor leadership certification and more toward preparation programs. Attention may be directed toward the topic of developing sound judgement in outdoor leaders and toward improving our methods of training and assessment.

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Soft Skills and Outdoor Adventure

Christine Cashel
Oklahoma State University
Stillwater, OK 74078
405-624-6761

In recent years outdoor professionals have separated "hard skills" from "soft skills". Swiderski (1986) defined hard skills as methods, processes, procedures, techniques and ability to use and operate equipment. The components within hard skills training can be separated into: 1) physiological including first aid, fitness, health or sanitation; 2) environmental encompassing environmental ethics, ecology, weather and natural history; 3) safety including skills in accident prevention, search and rescue and risk management; 4) technical skills in navigation, belaying, knots, river crossings or snow travel; and 5) administrative skills in program planning, evaluation or legal liability. Soft skills training include the following components: 1) social - conflict resolution, group process, ability to maintain a supportive climate and sensitivity to needs; 2) psychological - understanding motivation, promote values, understand attitudes, develop ethics, build a climate of trust, respond to a person's risks in a trustworthy way; and 3) communication - verbal ability, interpreting non-verbal clues, listening and responding.

Soft skills training has been identified as an area where outdoor leaders are lacking. Perhaps this is because soft skills are part of the process which lead to potential outcomes of participation in outdoor adventure activities. These outcomes or benefits have been categorized in many ways. Ewert (1986) listed potential benefits of outdoor adventure participation as physical, sociological and psychological. Chart 1 delineates the benefits.

Chart I

Potential Benefits of Outdoor Adventure Participation

Psychological

Self Concept
Confidence
Self Efficacy
Value Clarification
Problem Solving

Sociological

Group Cooperation
Communication
Compassion
Natural Awareness
Respect for Others

Physical

Strength
Coordination
Outdoor Skills
Sensory Awareness
Health

Outcomes of outdoor experiences have been researched extensively in van der Smissen's and Brookheiser's Bibliography of Research (1982). Over 80% of the dissertations and articles involve measuring psychological or sociological outcomes. Many of the studies concentrated on the outcomes related to self-concept or value-clarification.

Little research has centered on the soft skill competencies of leaders (process) in relationship to measured outcomes (product). In the last year however, several studies have reported findings related to outdoor leaders.

In examining group dynamics, Phipps (1986) developed a model for leader behavior which is designed to help groups learn about and change group dynamics. Cashel and Gangstead (1986) analyzed leadership behaviors related to participant achievement. This study focused on verbal and non verbal interactions between leaders and participants. Judgement decision making in leader's has been analyzed in a study by Cain (1987).

The above studies conducted in outdoor environments and other process research concerning the learning environment created by teachers as it relates to student outcomes draw several conclusions. They are:

1. Student involvement (conceptually or motorically) in an activity is critical to achievement (i.e., time on task).
2. Working at an appropriate level of difficulty raises achievement.
3. Strong management skills are an important condition for teacher effectiveness. An effective teacher is first an effective manager. These management skills have been characterized in the following ways by Kounin (1977):
 - a. the ability to know what is going on and to target behavior accurately and with good timing. This is called "with-it-ness";
 - b. ability to give specific feedback on behavior;
 - c. the ability to handle several things at once with a smooth uninterrupted flow of events. It should be noted that management skills are necessary but do not provide all of the skills necessary for effective teaching.
4. Direct instruction leads to achievement. This means creating a relaxed environment but one which is task oriented with a clear focus on goals. Active monitoring of student progress toward instructional goals and structured learning, especially in the learning of basic skills is important for success. Immediate and accurate feedback is a useful technique of this. (Amidon & Flanders, 1962).

5. Students tend to demonstrate more task relevant behavior when methods of two-way communication are used.

Regardless of the content or degree of student involvement in the learning process - task orientation, active teaching, clear goals and student accountability for learning are characteristics of good instruction.

During the 1970's educational institutions were challenged to account for learner outcomes by evaluating the teaching - learning environment (Darst, Mancini and Zakrajsek, 1983). Scientific inquiry into the process of teaching was initiated in the mid 1960's and is still in it's early stages in formal educational settings. Several investigators in physical education have pointed to a need for increased research focusing on teaching - learning environments (Cheffers, 1977; Locke, 1977; Siedentop, 1976). Efforts in this area should develop a solid framework of empirical research for a theory of teaching. The "soft skills" referred to in outdoor leadership are the behaviors examined in educational research.

Use of different techniques is required for studying interpersonal processes between teachers and students. Early attempts to describe teaching relied on subjective rating and evaluation forms (Darst, Mancini & Zakrajsek, 1983). Eyeballing checklists, rating scales and anecdotal records have been popular, but have lacked reliability and objectivity. Systematic observation methods have emerged which allow a trained person to follow stated guidelines and procedures to observe, record and analyze interactions in a valid and reliable way. Darst, Mancini and Zakrajsek (1983) and Batchelder and Cheffers (1976) identify many purposes for using an observation system. They include describing teaching practices, developing tools to analyze teaching, determining relationships between teaching behaviors and student achievement of specified outcomes and projecting future teaching patterns.

Various interaction analysis systems and behavior analysis systems have been used successfully in physical education settings. They seem to be appropriate for analysis of teaching or observing soft skills in outdoor leaders also.

The outdoor education field is continually trying to justify it's existence. Use of systematic methods to identify soft skill behaviors will contribute to the body of knowledge regarding outcomes of outdoor programs. It will also enhance leader effectiveness to maximize learner outcomes during outdoor experiences.

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The Physiology of Adventure

Camille J. Bunting
Texas A&M University
College Station, TX 77843
409-624-6761

One of the most often advertised aspects of outdoor adventure programs is the exhilaration and challenge of adventure experiences. Yet, most of our knowledge concerning the actual physiology of such experiences is limited to generalizations made either from distantly related studies, theoretical laboratory experiments, or subjective self-report questionnaires. The physiology of adventure is an area with many question marks, but is of imminent importance for the credibility of adventure programs.

Two of the predominate areas for consideration are: 1) the physiological responses to the unique physical challenges of outdoor adventures, and 2) the physiological responses to the unique psychological challenges of outdoor adventures. Within each of these areas are sub-areas associated with specific activities and situations which are common to many adventure programs.

Responses to Physical Challenges

Physical challenges that are commonly associated with various outdoor adventures include physical exertion in cold environments at varying altitudes, physical exertion in hot/dry or hot/humid environments, long hours of extended exertion and fatigue, sudden temperature changes with cold water immersion following or during physical exercise, irregular sleeping and eating patterns, and occasional requirements of sudden intense physical exertion as with a real or prefabricated emergency. The base of knowledge dealing with physiology in cold and hot environments and at altitudes of differing atmospheric pressure is extensive (Balke, 1968; Pirnay, 1970; Elliott, 1978; Sharma, 1978; Convertino, 1980; Horvath, 1981; West, 1985). Adventure programs have benefitted from the knowledge gained in these areas, and program safety has been increased.

Less exotic topics have yet to be actively investigated. Much of this neglect has been due to the fact that predominately young physically fit individuals have been the participants of adventure activities, and there have been relatively few fatalities resulting from physical exertion related activities other than those associated with environmental extremes.

However, adventure programs are now advertising for and attracting many older individuals that often have a lower level of physical fitness and are accustomed to a controlled environment with relatively little physical activity. There could be medical implications.

A few researchers are beginning to investigate the physiology connected with specific adventure activities. In a study measuring heart rates on a variety of high ropes course events, Little, Bunting, and Gibbons (1986) recorded heart rates of varying intensity. Heart rates were telemetered throughout a series of high events and recordings were made at several predesignated points on each event. The events eliciting near maximal rates were the pampier pole and the zip line, probably due to the psychological anxiety of the height involved. However, when two or more events were performed in sequence without returning to the ground in between events, the physical exertion together with anxiety tended to elicit heart rates approximating 60% to 70% of maximal rates.

Another demanding activity associated with many adventure programs is the 'run and dip'. Ricketts (1986) has begun to monitor the effects of such sudden temperature changes on heart rate, respiration rate and volume, blood pressure, and temperature changes. The indications are that significant changes do occur in these responses whether or not the cold water immersion is preceded by exercise. Due to the sudden changes that occur within the first 10 to 60 seconds, the author recommends that caution should be exercised when using such an activity.

These topics have just begun to be explored and still have many unanswered questions. In addition, other topics remain that have yet to be initiated. In any of the physiological areas of investigation, there needs to be a progression of information gathered. The first step is to get basic information from healthy physically fit individuals and branch from there to populations composed of varying levels of physical fitness, both genders, various ages, and varying health concerns, i.e., diabetic, alcohol dependent, dry dependent, and coronary prone.

Responses to Psychological Challenges

The psychological challenges that are commonly associated with outdoor adventures include the anxiety elicited by varying degrees of apprehension, the unfamiliar and uncontrolled environment, and the close and intense social situation of small group living. The condition that generally seems to elicit the most extreme responses is the anxiety associated with various activities. Such anxiety has been thought to evoke positive results because participants generally feel good about themselves and their accomplishments even though apprehension or fear was present during the activity. In fact, this type of stress has been termed 'eustress' as a positive type of stress rather than 'distress'. Eustress seems to be an accurate term for much of

the stress associated with adventure since participants usually describe most of their anxiety in terms of excitement and exhilaration.

The question concerning the physiology of eustress and adventure is whether or not the body can distinguish between 'good stress' and 'bad stress'. In an investigation of heart rates as an indicator of stress on the zip line event of a ropes course, Lewis, Ray, Wilkinson, Doyle, and Ricketts (1984) recorded sequenced heart rates and participant perceived stress. The indications were that the first experience elicited near maximal heart rates in some subjects along with self-reports of high anxiety. With successive 'zips', most subjects were able to respond with lower heart rates and lower perceived anxiety.

In exploring the sympathetic response to the eustress of the rock climbing and rappelling, Bunting, Little, Jessup and Tolson (1985) found that there were differences in urinary catecholamine excretion (epinephrine and norepinephrine) between aerobically fit and nonfit subjects, and tendencies for differences between the subjects when identified as either introverts or extroverts. The activities of climbing and rappelling obviously do not involve only psychological stress, but some degree of physical exertion as well. Due to the combined nature of the stress involved in most adventure activities, it is difficult, if not impossible, to limit an investigation to either physical or emotional stress. However, in an effort to determine the extent to which the stress of rock climbing could be attributed to psychological anxiety versus physical exertion, Williams, Taggart, and Carruthers (1978) measured the plasma epinephrine and norepinephrine secretion of a group of climbers on two separate climbs. Before the first climb, the climbers were given a placebo tablet, and later in the day before the second climb the climbers were given oxprenolol, a beta blocking agent. The results of the catecholamine analysis revealed that there was a significant increase of ephinephrine from pre to post climb with the placebo, but with the oxprenolol no increases occurred in ephinephrine or norepinephrine. These results support the contention of many climbers that the challenge of climbing is often more emotional than physical.

When testing for plasma epinephrine and norepinephrine secretion in conjunction with the pampers ple event on a ropes course, Bunting (1986) found tendencies for aerobic fitness level and Type-A Type-B behavior patterns to have a bearing on the sympathetic response. The results indicated greater reactivity to the event by the aerobically low fit and the Type-A subjects. The self-report measurements of anxiety that were taken, corresponded only moderately to the physiological measurements.

The indications of these initial studies seem to suggest that there may be little difference in the physiological response to eustress as compared to distress, and that possibly, personality variables influence the sympathetic response to eustress to a greater degree than do physical fitness variables.

Again, these investigations are only a beginning, and the questions remain as to the relevancy of gender, age, and health, and whether or not sympathetic responses to eustress should be considered as potentially deleterious as are similar responses to distress.

Implications for Adventure Programs

The preponderance of research that is directly related to the physiology of adventure activities has to do with two major considerations which are themselves related. The first and foremost concern is for the safety of the participants who are expecting a positive experience. The second concerns which is closely tied to program safety, is program credibility. Does the program meet its stated objectives and provide the advertised experience in a professional manner?

If a program is advertising experiences for particular populations, that program's activities should be based on knowledge of the physiological and psychological effects of those activities. If it is known that individuals with particular characteristics (low fitness level, certain personality types, or past experiences with drugs or alcohol) are more likely to suffer adverse physical effects from certain activities, then participants should be screened so that the program directors have adequate information about their participants. With such additional information, the structure of the course could be based on an educated understanding of probable individual response.

A broader base of knowledge with respect to the physiological responses to adventure activities is not a guarantee against unexpected medical complications. However, it would be a major step forward in demonstrating professionalism and dedication to the stated goals and objectives of most adventure programs. Let us endeavor to add to our scientific understanding of our programs' various components in dedication to a high standard of safety and credibility.

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The Ability of a Wilderness Orientation Program to Assist in the Adjustment of Incoming College Students

Dr. Michael A. Gass
Coordinator of Outdoor Education
Department of Physical Education
University of New Hampshire
Durham, NH 03824
603-862-2070

STATEMENT OF THE PROBLEM

The purpose of this study was to measure the effects of the wilderness orientation program entitled the "Summer Fireside Experience Program (SFEP)."

OBJECTIVES OF THE STUDY

To examine the effectiveness of such a program, two other groups - a similar pre-college experience ("Freshman Camp") and a control group - were compared with the SFEP on attrition and retention rates, grade point averages, and student development behaviors. All three groups were stratified by sex to see if any potential treatment effects were influenced by male/female differences.

PROCEDURES

The subjects were observed for one year to determine the effect that time had on the changes in the dependent variables. ANOVAS, ANCOVAS, and Effect sizes were performed to determine if any differences existed among groups, sexes, or in the interaction between the two variables. For those ANOVAS and ANCOVAS that were significant, the Newman-Keuls multiple comparison procedure was used to determine group differences.

RESULTS

The ANCOVA findings of the study indicated that the SFEP had a significant positive effect on retaining students in school after one year ($p=.038$) and cumulative grade point averages ($p=.033$). The program was also found to aid students in the growth of certain student development behaviors. These behaviors included Developing Autonomy ($p=.022$), Developing Interpersonal Behaviors ($p=.027$), Tolerance ($p=.007$), and appropriate relations with the opposite sex ($p=.024$). There were no significant differences among the groups in the development of Appropriate Educational Plans, Mature Career Plans, and Mature Lifestyle Plans.

CONCLUSIONS AND APPLICATIONS FOR THE PRACTITIONER

The findings of the study were found to be true for both male and female participants in the Summer Fireside Experience Program. The implications of the study suggest that wilderness orientation programs, when properly implemented, can aid in the adjustment of students to college. It also illustrates the positive value of outdoor education experiences for enriching programs involved with transition and education processes.

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The Effects of a Two-Week Adventure Program on Group Cohesion Group Cohesion in the Physically Handicapped

Frank B. Ashley, III, Ed.D.
Texas A&M University
College Station TX 77843
409-845-3758

STATEMENT OF THE PROBLEM

Twenty-eight physically handicapped campers (age 15-18) attending a two-week camp session were selected as subjects to determine the effects of an adventure program on group cohesion.

OBJECTIVES OF THE STUDY

Subjects were matched and paired according to sex, age, and disability, and randomly assigned to an adventure group (M=9, F=5) or a control group (M=9, F=5). Individuals in the adventure group participated in a camp program which consisted of adventure activities while the control group went through two weeks of the regular camp program.

PROCEDURES

To measure group cohesion, the Fundamental Interpersonal Relations Orientation-Behavior test was administered to all subjects the night of arrival at camp and again at the completion of the session.

RESULTS

A comparison of the means in the study with established norms showed little difference, although female subjects appeared to demonstrate higher scores than the norms in the area of "Expressed Affection". MANOVA demonstrated no significant differences in group cohesion between the two groups. There were also no significant changes in group cohesion for either group from pretest to posttest.

CONCLUSIONS AND APPLICATIONS FOR THE PRACTITIONER

Within the limitations of the study it was concluded that a two-week adventure program for the physically handicapped did not have a greater effect on group cohesion than a two-week traditional camp program.

The Effectiveness of Raising Individual Self-Concept of Girl Scouts-Indian Hills Council

Susan Shove
R.D. 2, Box 1217
Afton, NY 13730

Catherine Holmes
610 South Plain Street
Ithaca, NY 14850

STATEMENT OF THE PROBLEM

Does the Raising Individual Self-Concept (RISC) program of Girl Scouts Indian Hills Council actually raise self concept of girls served and make any kind of lasting impact on their lives?

OBJECTIVES OF THE STUDY

1. Masters thesis by Catherine Holmes to analyze all Tennessee Self Concept Scale data collected September, 1980 to December, 1984.
2. Survey of past participants to get statistical data on school success, recidivism, employment rate and other sociological data pertinent to the program and funding sources.
3. Interviewing and survey of girls attending reunion (select group for interviews) to obtain information on the girls' perception of the program and helpfulness of program in different areas of living skills.

PROCEDURES

1. Data analysis used a variation of the One Group Only Pretest Treatment, Posttest Design.
2. Survey was a self report instrument mailed to all past participants.
3. Interviewing was done by Dr. Robert Carpenter and 2 volunteers that he provided questions. Dr. Carpenter then reviewed reported information for specific threads common throughout interviews. Second survey was done as a self report by all girls and staff attending reunion. Only item analysis was done on this information.

RESULTS

1. Majority of the subscales from Tennessee Self Concept Scale showed increase between pre and post testing (7 of 10). Two scales decreased but not significantly and one scale decreased toward a more normative score. Five of the seven subscales that increased maintained this level at a second post test 6 months later. Most variables reviewed were not related to self concept scores. Slight relationship was found between income, age/grade and religion to selected self concept scores.
2. Self report showed that 90% of respondents are still in school or completed high school; 10% dropped out of school and 50% of this group are current working on a GED; 50% of the dropouts are teen parents and 50% of the dropouts are unemployed.
3. Interview data and analysis of perceived feelings on RISC experience are still in the process of being compiled.

CONCLUSIONS AND APPLICATIONS FOR THE PRACTITIONER

As a result of the research efforts over the past 7 years Girl Scouts-Indian Hills Council decided to continue operation of the RISC program, pursue alternative methods of funding the program and support the continuing overhead budget for the program. Information was presented to local school superintendents, social services and probation directors who will pay a fee for clients who participate beginning in the fall, 1987. The RISC program has increased the public image of the Girl Scout-Indian Hills Council, Inc. It has brought the Girl Scout program emphasis to and enriched the lives of girls who have participated in the program. It has also provided staff opportunities to do outdoor education programs for Girl Scout troops and outside groups.

This research relates closely to the conference theme "Outdoor Education Across America: Weaving the Web" as the RISC program involves cooperation of many organizations and individuals to operate this program of therapeutic camping using experiential education and reality therapy. The program also is a modification of many outdoor adventure programs in the United States and closely models the Girls Adventure Trails program of Dallas, Texas.

Communication Techniques for Outdoor Programs.

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Spider Web & Other Educational Initiatives & Games

Kit Thompson
Assistant Director
New York State Division for Youth
Higher Horizons Program
P.O. Box 340
Johnstown, NY 12095
518-762-4809

SUMMARY

This experiential workshop involved participants in a series of initiatives and games that underline a variety of educational concepts and enhance group cooperation and teamwork. The games are particularly appropriate for learning disabled, special needs youth.

MAIN IDEAS PRESENTED IN THE WORKSHOP:

- A. Initiatives and games can be used as educational tools that encourage interest in learning for those students who are difficult to engage.
- B. Games can aid in the internalization of concepts through concrete experience and active experimentation.
- C. A more cohesive classroom can be fostered through initiatives that focus on group cooperation.
- D. Special considerations in the leadership of initiatives and games.

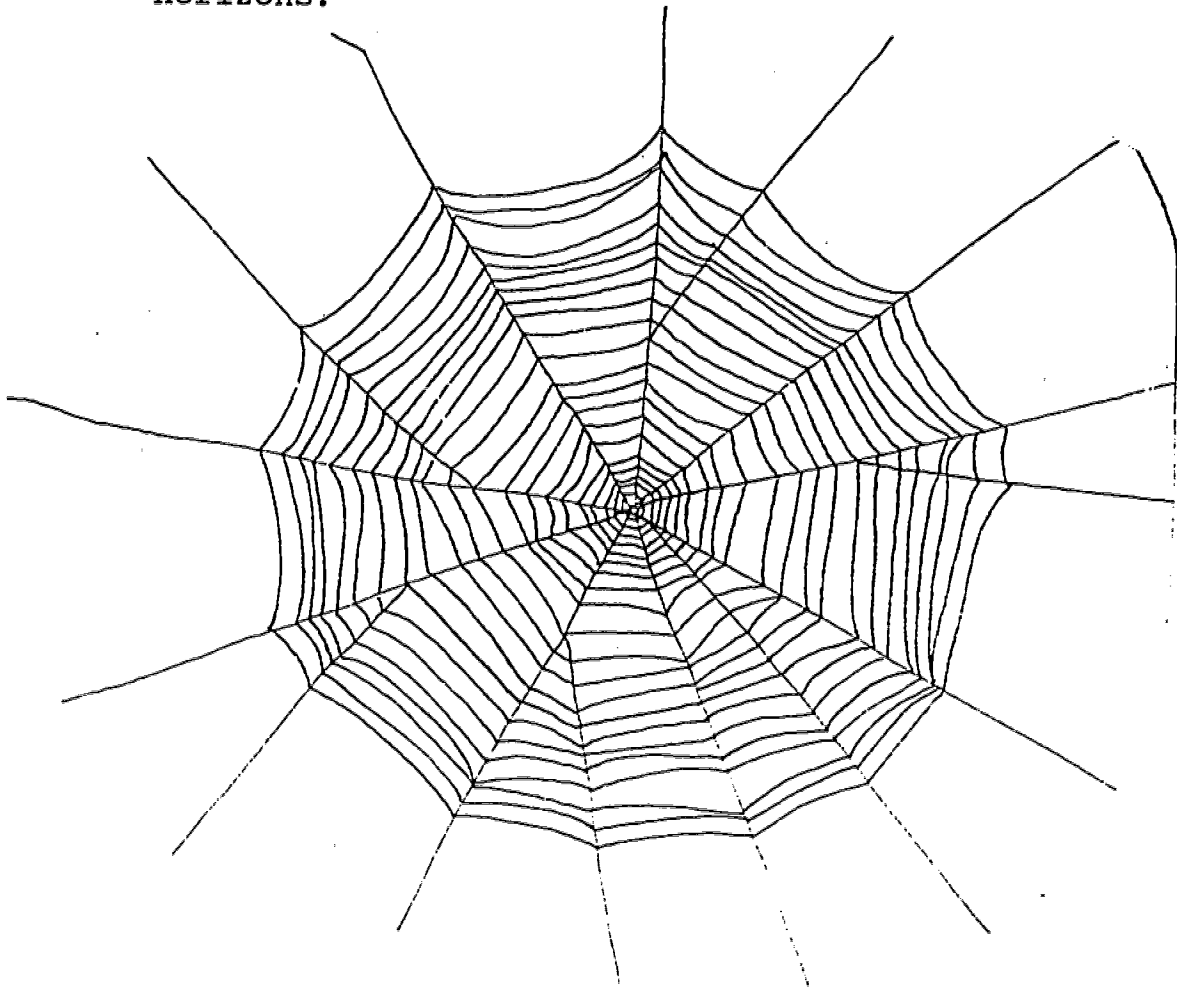
ACTIVITIES

Workshop participants were involved in a variety of initiatives and games that can be found in the references below. The activities included Spider Web, Fox & Goose, Shrinking Habitat, Wordles, an assortment of math games, and suggested activities for each major subject area.

Education, particularly for special populations and those youth who experience difficulties in learning must be more than a collection of specialized disciplines or subject areas. Nor can it be relegated exclusively to classrooms and removed from life experiences. An interdisciplinary approach to learning, that weaves a web between learning and experience can be encouraged through the use of initiatives, games and other tangible activities.

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People Skills for Outdoor Educators

Clifford E. Knapp
Professor of Curriculum & Instruction
Lorado Taft Field Campus
Northern Illinois University
P.O. Box 299
Oregon, IL 61061
815-732-2111

SUMMARY

This workshop will provide a rationale for and demonstration of the use of people skills for building a sense of community in outdoor programs. Participants will be involved in activities that enable them to practice selected "people" skills such as communicating, empathizing, cooperating, and processing experiences. The activities are also designed to promote nature awareness and sensitivity.

MAIN IDEAS PRESENTED IN THE WORKSHOP

Some key concepts presented in the workshop include:

1. Learning human relations skills are important objectives for outdoor programs.
2. Leaders must become aware of some key intrapersonal and interpersonal skills and practice them before effectively teaching them to others.
3. Structured activities provide opportunities for people to practice human relations skills while interacting with natural settings.
4. Asking processing or debriefing questions can provide participants with greater meaning from outdoor experiences.

ACTIVITIES

The following two examples illustrate activities and processing questions that allow participants to interact with nature while practicing intrapersonal and interpersonal skills. Other examples will be selected from two works by the workshop presenter (Knapp, 1985) (Knapp & Goodman, 1981).

Intrapersonal Skill: Becoming Aware of Feelings

Feelings from the Past

Go outside and locate natural objects and events which cause you to feel certain ways now. Consider your past contacts with those objects and events. Do past memories help shape your present-day feelings? How? Some people believe there are just four basic feelings: mad, glad, sad, and scared. Find at least one thing in the environment which causes you to experience each of these four kinds of feelings. After doing this, rank these feelings from the most intense (1) to the least intense (4).

Processing Questions:

1. How many natural objects and events did you find that made you feel a certain way?
2. Did you find that your past contacts with those objects and events affected how you felt?
3. Did you encounter some objects and events for the first time in your life? If so, what difference did that make in how you felt about them?
4. Were you successful in finding things in the environment that caused you to feel each of the four ways?
5. Did you find things that you couldn't fit in any of the four categories?
6. Do you believe that there are four basic kinds of feelings? Explain.
7. Which feelings were more intense?...least intense? Can you explain some possible reasons for this?

Interpersonal Skill: Communicating Thoughts and Feelings

Sticks and Stones (and two leaves)

With a partner, gather matching sets of two sticks (each a different size), four rocks (each a different size), and two leaves (preferably fallen from a tree). They should be matched as closely as possible for length, width, thickness, etc. Sit back-to-back in a comfortable place with the set of 8 objects in front of each person on the ground. One person chooses to be the follower and the other the leader. The leader arranges the 8 items in a pattern on the ground and then attempts to describe the arrangement to the follower. The follower must make the same arrangement as the leader, but can not speak or look around throughout the exercise. When the follower completes the task, he/she may look to see how accurately it was done. Switch roles and repeat the activity.

Discuss how the task would have been different if the follower was allowed to ask questions. If time permits, repeat the activity allowing the follower to talk. Discuss the difference that verbal feedback makes in communicating clearly.

Processing Questions:

1. Were you able to follow the leader's directions in placing the objects? If not, when did the problems arise?
2. Did you or your partner figure out a way to communicate non-verbally?
3. Was it easier to do after analyzing the problems encountered the first time around?
4. Were you able to follow the rules about no talking and looking around? If not, can you explain the reason for this?
5. How would asking questions of the leader help the follower do a better job of placing the objects?
6. How would asking questions help the leader in giving clearer directions?

In order for outdoor organizations, agencies, and other groups to coordinate programs and ideas and network more effectively, the individuals within these memberships must establish a sense of community. In order to implement a sense of community, people must practice specific intrapersonal and interpersonal human relations skills. This workshop will provide opportunities to improve these skills and learn new program activities which combine nature awareness with people skills.

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**Crisis Intervention Skills for Outdoor Education
Professionals: Psychological First Aid**

Veronica L. Eskridge, Ph.D.
Associate Professor
Ithaca College
709 North Cayuga Street
Ithaca, NY 14850
607-272-8084

SUMMARY

Participant crises that emerge in outdoor education settings cover almost the entire range of situational and developmental events (e.g., homesickness, fear, physical illness or injury, grief from divorce or death). In addition to physical proximity and the opportunities for intervention inherent in outdoor education settings, there is a striking compatibility between the goals of outdoor education and crisis services: both aim at growth and development of the individual based on learning. This workshop will introduce concepts which will allow the educator to understand what is "going on" with the individual in crisis (as well as with themselves), provide them with new skills to manage the disruptive behaviors and feelings, and ways to use the situation for teaching.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. Individuals are faced with crises in, or bring personal crises to, the outdoor education setting.
- B. Outdoor educators have a unique opportunity to assist individuals in bringing the crisis to resolution as well as using the situation for the facilitation of learning and growth in the individual.
- C. Crisis intervention theories and practices offer different ways of conceptualizing what is occurring and simple skills for managing the situations in positive and growth producing manners.

ACTIVITIES

- A. Short lecture and demonstration to introduce the concepts of crisis intervention theory and useful techniques.
- B. Couple and small group practice with the individual skills introduced (e.g., active listening, accessing cues, anchoring, reframing).

- C. Group experience of progressive relaxation, guided imagery, and creative visualization.
- D. Small group guided discussion of philosophical implications, administrative implications in various settings, and individual reactions to the concepts and techniques introduced.

One commonality of outdoor educators is that they are professionally involved in facilitating both social and individual growth in people. People have a psychodynamic aspect to their lives and in themselves. One challenge of the future will be for training and research to explore application of psychodynamic theories (including psychological first aid) to both situational and developmental aspects of outdoor education. The hope is that the ideas presented will stimulate collaborative efforts between outdoor educators, administrators, and mental health professionals aimed at optimal use of outdoor education resources to facilitate positive change/development in individuals and society.

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Environmental Concerns & Concepts

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The Beaver: History, Habitat, Lifestyle

Martin J. Strong
Resident Director
Nassau BOCES Outdoor and
Environmental Education Center at
Caumsett State Park
25 Lloyd Harbor Road
Huntington, NY 11746
516-997-8700

SUMMARY

This workshop, designed for teachers, shows how they can utilize the study of the beaver in such disciplines as social studies, science, language arts, reading, and art.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. Historical importance of the beaver in the exploration and mapping of North America
- B. Unique physical characteristics of the beaver
- C. Study of the beaver's lodge and dam systems
- D. Importance in providing a unique habitat in the web of life

ACTIVITIES

- A. Worksheet on body parts of a beaver and their uses
- B. Construction of a scale model beaver complex
 1. materials: celuclay, wood chips and sticks, piece of plywood 2' x 3', plexiglass 2' x 3', glue, paint
 2. paint plywood blue
 3. construct banks of stream, island, lodge and dams using celuclay
 4. insert sticks and wood chips on lodge and dam while celuclay is still wet. Also cut stick to act as stumps on banks and island
 5. paint banks and island brown and green
- C. Poetry - create a poem
 1. title or main topic - one word
 2. description - two words
 3. feeling toward title - three words
 4. adjective describing - four words
 5. synonym - one word

- D. Language arts
1. write in first person
 2. describe what you, as a beaver, might see, do, experience in a day

The beaver and the community it constructs provides habitat for birds, mammals, reptiles, amphibians, fish and insects...thus becoming an important thread in the total "web of life".

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Selected Outdoor Education Activities

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Low Impact Camping

Dr. Judith Kennison
Assistant Professor and Coordinator
of Outdoor Recreation Concentration
Department of Recreation and Leisure Studies
Ithaca College
30 Hill Center
Ithaca, NY 14850
607-274-3335

SUMMARY

As group leaders in the outdoors we serve as caretakers of the environment. In an effort to minimize the impact each group has on the environment we strive to educate participants about low impact camping techniques and stimulate the development of an environmental ethic. The purpose of this workshop is to present several ways to discuss low impact camping techniques with a maximum of participant involvement and discussion.

MAIN IDEAS PRESENTED IN THE WORKSHOP

Low impact camping is a method of camping in which the camper takes action in a variety of ways to minimize physical impact on the environment and social impact on other visitors (Anderson, 1981). Techniques to minimize impact usually fall into the following categories: campsite selection, vegetation treatment, trail use, sanitation, visual impact and campfires.

ACTIVITIES

Exercise I: Read the following paragraph and find the ten camping and trail mistakes. Identify and explain each of the ten violations of low impact camping and suggest a better approach. Guessing counts against you, because with low impact camping your primary responsibility is to keep informed.

It's a spring day in the High Peaks Region of the Adirondacks. You and your group are hiking along a trail that is wet, muddy and soft, but you've been taught always to use the established path, so you don't deviate, even though some of the party are stepping a bit to the side, where it's drier. You tramp right down the middle. When you get to the lake, your leader chooses a campsite well away from the water, yet near where other groups already are, to keep impact low.

The first priority is building a large fire, so everybody gathers lots of dead and down wood and enlarges the fire ring somewhat to accomodate it all. By dark the group has eaten, the organic garbage has been burned, and the leader decides that for sanitation and privacy, women should go upstream and men downstream. Many people sit around the fire till late at night guarding the food from bears. In the morning before moving on, the ashes from the fire are spread among the trees to return nutrients to the soil. Then you all carefully pick your way across the meadow and back onto the trail. (Adapted from Wallace and De Bell, 1982)

Correct techniques: staying in the middle of trail even when wet, campsite chosen well away from water, organic garbage burned.

Incorrect techniques: stepping to side of trail where it's drier, campsite selected near other groups, building large fire, collecting lots of dead wood and enlarging fire ring, bathroom too close to water source, talking around fire until late at night, guarding food from bear, spreading ashes among trees, and crossing meadow.

Follow this exercise with a discussion of alternatives for the incorrect techniques. Waterman and Waterman (1980) list 30 tenets of clean camping (p. 53-55) which would be very useful to group leaders.

Exercise II: Have each participant respond to the following statements by circling either T (True) or F (False) (Anderson, 1981).

- | | | | |
|---|---|-----|--|
| T | F | 1. | Fish entrails should be thrown back into the lake or stream. |
| T | F | 2. | Carry out refuse left by others. |
| T | F | 3. | Burn and bury cans, foil, and plastic. |
| T | F | 4. | To dispose of human waste, dig a hole 6-8 inches deep. |
| T | F | 5. | Locate camp at least 200 feet from lakes or streams. |
| T | F | 6. | Biodegradeable soap does not pollute water. |
| T | F | 7. | Lightweight, soft shoes should be worn at the campsite. |
| T | F | 8. | Camping in open areas causes visual impact and should be avoided. |
| T | F | 9. | A large rock fire ring should encircle fire. |
| T | F | 10. | Ditching around a tent is okay if campsite is wet or if the onset of a heavy storm will cause drainage problems. |

- T F 11. If toilet paper is used it should be buried.
 T F 12. Building camp furniture is a misuse of wood.
 T F 13. Using a stove instead of a fire preserves the wilderness quality.
 T F 14. It is better to pack out paper trash than to burn it.
 T F 15. Wash water may be returned to lakes or streams.
 T F 16. Fires leave a scar on the land that is difficult to erase.
 T F 17. Bright colored equipment is best for wilderness use.
 T F 18. Dead and downed wood is needed to replenish soil.
 T F 19. A wooded area with unvegetated cover is a good campsite selection.
 T F 20. Standing dead trees may be used for firewood.
 T F 21. Human waste deposited 200 feet from lakes or rivers will probably not enter the water.
 T F 22. It is acceptable to stay at one campsite for more than one week.
 T F 23. Soil compaction increases plant growth.
 T F 24. Nails and wires do not damage trees.
 T F 25. In areas of high elevation or on heavily used sites, campfires should be avoided because firewood is scarce.

Answers: 1. F, 2. T, 3. F, 4. T, 5. T, 6. T, 7. T, 8. T, 9. F, 10. F, 11. F, 12. T, 13. T, 14. T, 15. F, 16. T, 17. F, 18. T, 19. T, 20. F, 21. T, 22. F, 23. F, 24. F, 25. T.

Follow this exercise with a discussion of why some responses are better than others. Concluding comments should include the idea that low impact camping is a goal toward an ethic and not a set of rules. Common sense and good judgment in a variety of environments must be used.

Outdoor leaders have an obligation to protect the environment that is being used in various programs by educating participants in low impact techniques. What better way to "weave the web" than to help participants formulate their own ethic through participatory learning?

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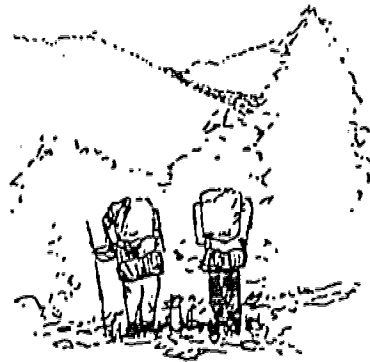
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Canoe Basics

Barbara Klingman
Instructor
Sam Houston State University
Box 2176
Huntsville, TX 77341
409-294-1159

SUMMARY

The beginning canoeist will learn the basic safety procedures, rescues, strokes and terminology that will enable them to more safely and effectively maneuver their craft on flatwater and Class I or II rapids. Lecture, land drills and water drills will be utilized to teach these concepts. Canoeing is an active and enjoyable sport appropriate to most age groups. Hopefully participants will begin to enjoy this lifetime sport and see it's place in their curriculum.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. Identification of canoe and paddle
 1. Determine what style and size is right for you.
- B. Lifestock classification -- canoe must have one of either - Type I, II, III or IV - for each person in the canoe.
 1. Type I P.F.D. - most buoyant and designed to turn unconscious victims face-up.
 2. Type II P.F.D. - less buoyant and bulky and also designed to turn unconsciousness victims face-up, but it is not as effective as Type I.
 3. Type III P.F.D. - same buoyancy as Type II, usually more comfortable, but no turning ability.
 4. Type IV P.F.D. - designed to be grasped and held by the user until rescue. Not readily wearable.
- C. Safety considerations
 1. Proper emphasis on safety
 2. Swimming ability
 3. Proper use of P.F.D.'s
 4. Use of throw ropes
 5. Warning signals with whistle and paddle
 6. Reach - Throw - Go
- D. Swim testing
- E. Rescue of swamp canoe
 1. Canoe over canoe
 2. Capistrano flip
 3. Self rescue



- F. Strokes
 - 1. Forward
 - 2. Backward
 - 3. Draw
 - 4. Pushaway
 - 5. Sweeps
 - 6. Crossdraw
 - 7. J
- G. Tandem and solo canoeing - drills and games
- H. Knots
 - 1. Square
 - 2. Bowline
 - 3. Clovehitch
 - 4. Butterfly
 - 5. Zeppelin
 - 6. Sheetbend

ACTIVITIES

- A. Swim test - weather permitting
 - 1. Swim for 5 minutes with clothes and shoes on, then, while still in water, efficiently put on a P.F.D., swim for one minute, remove it for one minute and then attempt to put it back on again.
- B. Carrying, launching and entering
 - 1. Two and four man carries
 - 2. Low and over-the-head carries
 - 3. Launching with two hand pass without scraping dock or shore
 - 4. Enter with center of gravity low, walk down middle, hold gunwales. Partner not entering stabilizes craft.
- C. Capsizing - weather permitting
 - 1. Experience the stability of boat with weight low on knees versus sitting in seat.
- D. Rescues - weather permitting
 - 1. Canoe-over-canoe - while capsized, canoeists stabilize rescue canoe, rescuers pull capsized canoe upside-down across their gunwales, emptying water. Once balanced across their canoe, the rescuers will turn it upright and slide it back out into the water for the "victims" who then must off-balance one another as they climb in.
 - 2. Capistrano flip - this is best performed by two or more people wearing life jackets. With the canoe upside-down, the rescuers go under the canoe where there is a large air pocket. In unison, they lift one gunwale to break suction, and quickly throw the canoe up and over.

E. Strokes

1. Strokes will be practiced first on land, with imaginary canoe. The appropriateness and purpose of each stroke will be covered while working on the technique.
2. Proper carrying, launching and entering a canoe will be practiced. Once everyone is on the water, strokes will be performed by participants bow and stern on command. Their effect on the movement of the canoe from either bow or stern position will be emphasized.

F. Drills

1. Indian running - have canoers try to follow in a straight course, one by one, behind the leader.
2. Formation - line canoes up as soldiers and have them move on command up, back, side or in a circle while maintaining their relative formation.
3. Obstacle course relay - have canoes divided into teams and, two by two, race through an obstacle course.
4. Modified solo - have bow and stern participants face each other. Allow only one to paddle (solo) while the other critiques and coaches.
5. Back and forth race - in "modified solo position" have all canoes race with one partner paddling the last leg.
6. Knots - basic and relevant knots will be demonstrated and practiced, teams will compete for points on accuracy and speed in tying.

The Indians and explorers swiftly and skillfully cut their canoes through the watery mist. They were on their way to hunt, to trade and to war. Canoeing is a skill, a way of transportation and a sport of competition that has survived both time and technology with little change. The canoe still takes explorers across America to discover for themselves the beauty of the land and water. One cannot help but explore and discover the forces of nature whether one canoes down a raging river or placid lake. It is a perfect vehicle to the outdoors. The link between primitive and modern, natural and artificial, nature and people.

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Using Language Descriptively and Imaginatively

Donald R. Hammerman
Professor, Outdoor Teacher Education
Northern Illinois University
Lorado Taft Campus
P.O. Box 299
Oregon, IL 61061
815-732-2111

SUMMARY

The purpose of this workshop is to demonstrate ways in which:

1. Selected outdoor stimuli can be used to foster the precise, accurate use of descriptive language.
2. Out-of-classroom environment can be used as the instructional setting for extending vocabulary.
3. Natural phenomena can be used to trigger the imagination with correlated application to creative writing.

ACTIVITIES

Activity #1. Leader selects one object, i.e., a feather, pine cone or fossil. After a few moments of observation each individual describes the object in writing using as many colorful descriptive adjectives as possible. Descriptions are then read aloud to compare use of language and vocabulary.

Activity #2. Each person selects an object in nature to describe as precisely and accurately as possible. These descriptions are read one at a time, and other members of the group try to match the verbal description with the real object.

Activity #3. Divide into smaller groups of 3-5 individuals and using the objects described in activity #2 create a story incorporating these objects into the story. Read these stories aloud.

Activity #4. Explain the concept of fantasy journeys or guided imagery.

The way you approach a fantasy journey is your set. Both the participants and the leader should feel relaxed and at ease. The journey should be approached as being something fun. Anything you might think up is right; there are no wrong answers. The leader should create an atmosphere of trust, and should never force participation. It's okay to fall asleep during a fantasy journey. In a fantasy journey anything is possible; everything is possible. You may come up with ideas that are not at all applicable to the fantasy at hand. The participants should feel comfortable. They may want to lie down on the floor or find a comfortable chair to sit in. They may want to go outside and lie down in the grass!

The setting is the location you are in for a fantasy journey. Basically the room should be comfortable with as few distractions as possible, conducive to letting the mind wander. In most classrooms this means closing the windows and doors to keep out noise, and turning off the lights. An outdoor setting should be free of as many distractions as possible.

After giving the participants the right set, they should go through a relaxation activity such as those found in The Centering Book and The Second Centering Book.

Following the journey itself should be a sharing period of follow-up. Responses should be voluntary on the part of participants.

(Guided Imagery) Imagine yourself all curled up into a tight ball ... Suddenly the shell splits, and you crawl out of the egg ... You are so hungry -- you eat your own egg shell ... You notice your surroundings ... You are on a green stem, and Oh, the aroma! ... Pink blossoms are below you ... the leaves of the plant are so very tasty! ... They have a sap that is much like milk ... You have such a voracious appetite ... Imagine yourself eating and eating, and never getting enough ...

Now you are a full grown caterpillar ... Imagine yourself inching out onto a limb ... onto the underside of a leaf ... Then you attach yourself to the leaf ... When you are attached, you feel yourself changing form ... becoming encased by a soft smooth shell that is the same green color of the leaf ... staying there dormant for a time as your body changes shape ...

Imagine the case splitting open ... as you stretch to climb out, you discover that you now have long, splindly legs ... and on your back ... wings! ... Spread your wings ... flap them and fly away ... always returning to the milkweed plant for food ...

Imagine yourself flying around observing your world ... You see a large blue creature that also has wings ... there's another creature like you, only not as beautiful ... but the blue creature has eaten him! ... Remember to stay away from the big blue bird ...

Imagine the leaves beginning to change colors and the air cooling ... See lots of creatures like yourself ... join them as they flutter from plant to plant ... It's time to fly south ... keep flying ... and flying ... flying ... Finally it's warm again, you can rest ... After a nice long rest, you will start the journey back to the lovely milkweed ... Along the way, you find a milkweed plant, and lay some eggs there ... soon another caterpillar will emerge to continue the cycle and continue your return journey ...

Keep these ideas and images in your mind ... Now it is time to return to the people around you ... Bring yourself back slowly and gently ... and feel rested and alert

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Outdoor Photography for the Practicing Photographer

Dr. Norman L. Gilchrest
Associate Professor of Health,
Physical Education and Recreation
Baylor University
Waco, TX 76798
817-755-3505

SUMMARY

This workshop is designed to improve the photography skills of persons interested in outdoor photography. All aspects of outdoor photography are discussed, with good and bad techniques being analyzed and illustrated. Equipment is discussed and demonstrated; participants are encouraged to bring their personal equipment.

MAIN IDEAS PRESENTED IN THE WORKSHOP

The following content is condensed from a fourteen page workshop handout.

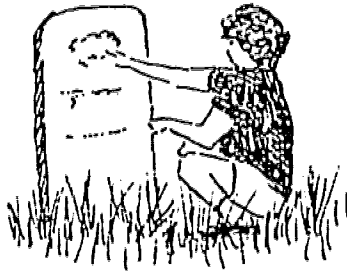
- A. Some general considerations about photography
- B. Two general ways to take better pictures
 1. Get better equipment (lens, body, filters, film, processing, winder, tripod, and so forth)
 2. Use the equipment better
- C. Some basic suggestions for getting better pictures
- D. Hard work
- E. Learn to think like a camera/film and see like a camera/film.
- F. Dark room magic--Once you push the button, try to make the picture as appealing as possible.
- G. Steps in taking a good picture
 1. Before taking the picture
 - a. Be sure film is loaded and advancing.
 - b. Be sure proper ISO is set on the light meter you are using.
 - c. Turn camera on.
 - d. Check battery (if applicable).
 - e. Choose proper lens (focal length, speed, etc.).
 - f. Choose subject
 - g. If needed and possible, move elements (subject, camera, light source, etc.) to make a better picture.

- h. Use filters, if desired.
 - i. Determine proper exposure value.
 - j. Consider depth of field.
 - k. Use artificial or altered light, if desirable.
 - l. Set desired shutter speed and aperture for proper exposure. Be sure the camera is in the desired "mode."
 - m. Use tripod or other support, if needed.
 - n. Compose picture (put subject in best place, eliminate disturbing elements, get camera level, etc.).
 - o. Be sure nothing is in front of lens (lens cap, finger, camera strap, etc.).
 - p. Focus (on the most important part of the picture).
 - q. Check for vignetting.
 - r. Be sure no distractions are going to move into the picture (birds, cars, people, etc.).
 - s. Be sure the camera/film combination can take the picture under the circumstances.
2. Taking the picture
 - a. Do not take the picture if you do not like it (except for "I was there" pictures).
 - b. If you like the picture, squeeze the shutter button until the shutter is released.
 3. After the picture is taken
 - a. Perhaps take another picture.
 - 1) Bracket if it is an important picture.
 - 2) If you want to experiment, change one or more of the elements (subject position, subject, focal length, filters, camera position, depth of field, etc.) and shoot some more pictures.
 - b. Turn the camera off.
 - c. Put on the lens cap.
 - d. Put camera in case.
- H. Considerations, common problem areas, solutions, and suggestions: (a) batteries, (b) special lighting situations (Capture the Beauty, 1983), (c) shutter speed, (d) camera shake, (e) depth of field, (f) critical aperture, (g) dealing with motion, (h) vignetting, (i) special effects, (j) glare, (k) focus, (l) objections in front of lens, (m) objects moving into the picture, etc.

Other than personal observation of the lives of participants, photography offers perhaps the best method of viewing outdoor education across America. In addition to recording the "web we weave" in the lives of others through outdoor education, photography is an ideal medium for educating in the outdoors.

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Design Your Face

Jean Z. Louthier
Program Assistant
Monroe County 4-H
249 Highland Avenue
Rochester, NY 14620
716-461-1000

SUMMARY

Using creative arts as a tool in outdoor education clowning is a great way to present lots of messages.

The purpose of the workshop is to learn how to apply clown makeup. The history of clowning, clown code and actual hands-on application of makeup will be covered.

MAIN IDEAS PRESENTED IN THE WORKSHOP

1. History of clowns -- three types
 - A. Hobo, tramp
 - 1) An American creation
 - 2) Untidy
 - 3) Usually sad, works alone
 - 4) Wears tattered clothes
 - 5) Half face makeup
 - B. Auguste
 - 1) German creation (coming from German word aguste (meaning stupid)
 - 2) Trips, falls
 - 3) Wears clothing backwards, exaggerates, slapstick
 - 4) Very funny
 - 5) Very popular
 - 6) Happy face
 - C. White face clown
 - 1) Oldest type of clown
 - 2) Classical, conservative
 - 3) Wears white
 - 4) White face
 - 5) Has a definite skill, juggles, magician, aerobat, animal trainer.
2. Action-Warm-up exercise
 - A. Stretch to ceiling.
 - B. Drop to ground to form a ball.
 - C. Inside a ball.

- D. How will you get out? Explore how you will get out.
- E. Return to natural position (hands by side, standing on both feet).

Here is good body movement practice as well as fun. Two assistants hold a sheet in front of the performer (who can be seated or standing) at a height which reveals only his or her legs. The actor then performs one of the listed actions or one which s/he thinks up for him/herself, and the audience tries to guess what is going on.

Listed actions: jumping rope, diving, boxing, kicking a football, driving a car, doing knee bends, waiting in line, at bat in baseball, playing hopscotch, crossing a stream on rocks, walking on deck of ship in storm, watching a movie, eating dinner, cutting toenails, eating at lunch counter, listening to music.

3. Introduce code of clowns

- A. Clowning carries the responsibility of making your audience happy. Keep a copy of the clown code in your makeup kit. Remind yourself as you apply your makeup of the behavior and traditions you are responsible for.
 - 1. A clown is gentle
 - 2. Be on time.
 - 3. A clown creates an illusion; when the audience sees you, they aren't seeing you at all. They are seeing your clown character.
 - 4. Be understanding & 'back-off' when someone doesn't wish to meet a clown.
 - 5. Crouch down to eye level when talking to a child.
 - 6. Clowns are originals; they borrow ideas, but they don't copy.
 - 7. Practice-practice-practice! Perfect your skills--skits, routines, 'bits', prop use.
 - 8. Never show anti-social, negative habits or behavior, by action or by promotion.
 - 9. Allow plenty of time to apply your clown makeup, get into costume, and into your character.
 - 10. Costumes are clean & attractive in a gaudy sort of way. Carry extra clean gloves.
 - 11. Keep yourself in good physical and mental condition. -- good shape -- good performance.
 - 12. Clowning can be very demanding and tiring.
 - 13. Be considerate of others and make them feel good.
 - 14. Be safe; don't throw things at people, give them to them.

15. Be neat, clean, and well groomed. Even the hobo is clean underneath.
16. Rest - in character - if you get overheated or overtired, especially in parades. Arrange for transportation and refreshments after parade.
17. Be a clown - in the best way you can and in the best traditions of clowning.

4. Makeup

Experiment on paper. Draw some ideas -- it is easier to draw on paper than your face. Develop a face that will be yours. When you have a name, face, and costume, then this will become your character.

ACTIVITIES

Makeup for Auguste Face:

Basics:

1. Clean hands and face - tie back hair - stocking to cover (if you wear glasses, work around them).
2. Small amount of cold cream on face and throat.
3. Gently tissue off excess.

Ready:

1. Mix white with flesh tone.
2. You may want to draw on your face with a black eyebrow pencil and cover your face only where flesh tone will be or cover entire area then remove flesh tone with cotton swab where other color will show.
3. Exaggerate markings. Outline black they will show up better.
4. Remove flesh tone - use a Q-tip dipped in baby oil, before applying other colors, otherwise you will not have a bright color. Remember, bright colors show better and farther.
5. Powder, pat on so you will not smudge.
6. Spray - blot (carefully).
7. Work slowly - you are creating a work of art - an illusion.

Summary:

Today you did an Auguste face.

1. When you become a clown you become another person. Create a new person.
2. You have a new name.
3. Wear different clothes, new costume.
4. To develop your character, you will always wear the same clown face you designed for yourself.
5. Wear the same costume.
6. Use the same name.
7. Experiment - design a face, costume and name you will feel comfortable with and above all enjoy!

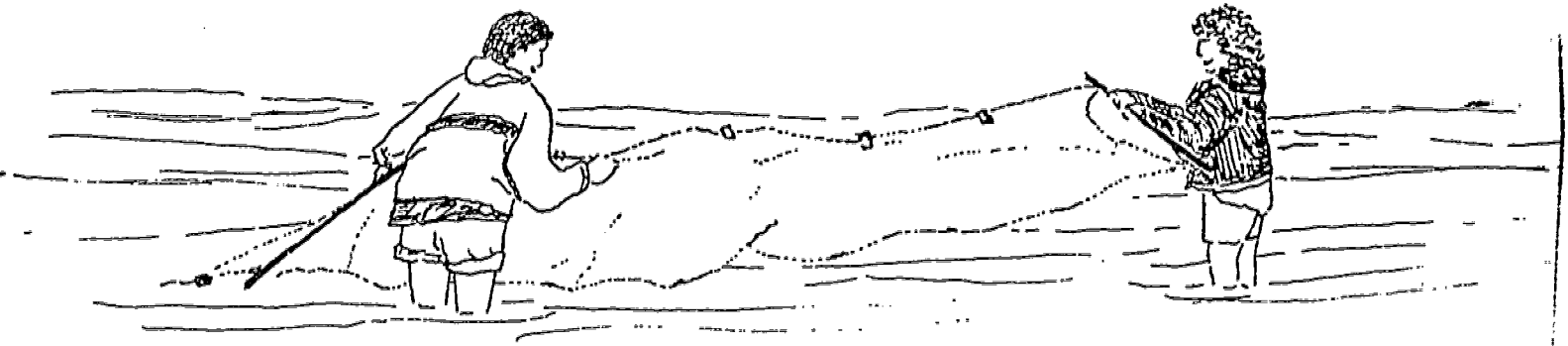
Remove makeup or wear it home.

1. Remove - wipe with tissue.
2. Apply baby oil.
3. Remove gently with tissue.
4. Remember, clean your skin thoroughly!

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Clowns Clowns 4-H Expressive Arts, Cornell University, Ithaca, NY
14853

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Avenue, Chicago, IL 60625.



Adventure Education - The Natural Way

Dr. Charles Chase
Assistant Professor of Recreation
University of Mississippi
311 Phillip Road
Oxford, MS 38655
601-232-5561

SUMMARY

This is a two part workshop addressing the rationale, mechanics, and implementation of a unique outdoor program. This is outdoor adventure education -- the natural way! The first part is a slide presentation, the second part is the actual involvement in a natural adventure program.

The purpose of the workshop is to explain and demonstrate how easy it is to include adventure education into any existing program or curriculum and do so on a no cost basis using the surrounding natural environment. Further, it is the purpose of this workshop to first vicariously and then experientially involve the participants in selected adventure activities using only chosen features of the natural environment. These involvements will serve as a guide for the purpose of follow-up design of natural adventure education programs wherever the participating outdoor educators may choose to do so.

MAIN IDEAS PRESENTED IN THE WORKSHOP

- A. Definition of adventure education
Adventure education is an educational vehicle, when used in the natural environment, has the outstanding capability to enhance, enrich, and promote the sociological, educational, recreational, and overall personal growth of the participant.
- B. General format of a natural adventure activity
 1. Activity objectives:
Prior to selecting and implementing any natural adventure activity, the educator should first ensure that the purpose of the activity is such that it will ultimately fulfill one or more of the program's educational predetermined objectives. An example of a program objective might be "to promote group cohesiveness within the participant population." Behavioral objectives are preferred.

2. Designing an activity:

The general procedure for each activity is simply this: explain the activity to the group, give them the situation, the parameters or guidelines of the activity, and what they specifically are to accomplish. For example: in the Flash Flood Fugitives activity you might tell them that in three minutes, five feet of water will fill the entire area and remain there for two minutes, then it will recede. In order to be saved from this peril, the entire group must be in a tree found within 100 yards of where you have them assembled and remain in the tree, in their positions, for the two minute flood time. That would be the situation. The parameters might be as follows: a) only one person is allowed on a branch of the tree, b) you are not allowed to break a branch or else you must move to another tree, c) each person must have at least a 3-point station -- holding on with both hands and one foot, or both feet and one hand. Such would be the parameters of the activity. The participants must operate within the guidelines the leader sets.

3. Safety procedures:

In adventure education, safety is always given priority. Never put the well-being (physical or emotional) of a participant in jeopardy at any point in time. You can have a safe program by following these procedures:

- a. Participants should dress appropriately--long pants, long-sleeve shirts, shoes with support and good traction (tennis shoes work fine). A fully dressed participant is not likely to get scratches or abrasions.
- b. To reduce the chance of a muscle strain or joint sprain or strain, preface the adventure activities with at least a 15 minute warm-up session consisting of a variety of stretching exercises. The exercises should involve hopping, jumping, twisting, balancing, etc. Make up "silly" exercises to accomplish this. Let the participants make up some of the exercises. This warm-up session should also include fall techniques--somersaults, side rolls, etc.
- c. At any time during an activity, if the conditions are such that a participant could fall, even if only one foot off the ground, other members must act as "spotters." This is no different than what is done with trampoline activities. The main objective is to protect the person's head, neck, and upper back region.

There should be at least one spotter per participant when the activity dictates such. A spotter needs to be close to the active participant and the spotter must have his/her hands up and be ready to "catch" or support the person if they should lose their balance. For a safe program, spotters must be alert and in position when activities demand such. Group leaders should always check to be sure that spotters are in place in activities that require them.

4. Activity flexibility:

There will be times when what you designed to be an activity appropriate for your participating group turns out to be something more fitting for a select group of commandos. It could also be that you significantly underestimated the capabilities of your participating group. In most cases you won't have to concern yourself with such but if it is your first time out with a new group, you may have to eventually modify your expectations. The structure of natural adventure is such that it does allow for programmatic flexibility. As the group leader, do not be hesitant about intensifying or lessening any specific activity expectations.

5. Post activity evaluation:

After the group has completed an activity, the leader assembles them briefly for an evaluation. This is the time to highlight the instructional objectives listed earlier and recognize and reinforce the personal strengths, resources, and leadership traits of the participants. Do not try to keep breathing life into a post-activity session just for the sake of having a session. The input from your participants will be a big indicator for you. Encourage the awarding of peer recognition from within the ranks. When it is over, that is the green light for you to move on to the next challenge.

ACTIVITIES

The program of natural adventure by its very nature is such that other than the incorporation of the main ideas, the specific design and implementation of any one natural adventure activity will necessarily be unique and indigenous to that activity. This highlights the fact that natural adventure is a methodology, not a singular content area.

If there is any one thing that seems to have ubiquitous appeal to users of the outdoors, it is the magic of adventure. Adventure can be many things depending on who you talk to, as adventure is supplied in significantly different packages. However, there is one form of adventure that is available at almost every outdoor setting. It is daring, it is fun, it is exciting, and it is free. This is adventure that is not as much new as it is overlooked. The title that perhaps best describes this form of adventure is terrestrial challenge. In essence we are talking about "personal total commitment." For outdoor educators, socialization is one of the general objectives within their program plan. If it is socialization you want, with terrestrial challenges, socialization is precisely what you will get. The activities work with lower elementary school groups, and they are absolute magic with upper elementary school children. Terrestrial challenges are eagerly participated by middle school and junior high school populations, high school students, and are utilized as Olympian games by college and university groups. Adults -- including seniors -- enjoy them too!

One of the attractive elements of terrestrial challenges is that the involved group will develop and maintain appropriate cognitive, affective, and psychomotor levels of involvement. They will establish their own parameters.

What will be viewed as remarkable by the outdoor educator will be the very obvious peer recognition and appreciation development that initially surfaces and continually strengthens within the group. This appears to be the case no matter what the age group.

Each and every participating member of a group has a personal forte -- which often remains hidden to the group prior to the adventure outing. Often discoveries occur that certain group members have upper torso strength developed well beyond their peers while others have an extraordinary sense of balance. Still others have the keen cognitive ability to quickly propose workable solutions to the given problems or predicaments. Included in these discoveries will be the enviable organizational ability of some participants. The discovery of these fortes is extremely rewarding to the leader, but more importantly the self-esteem that a group member gains is probably the biggest reward of all. Additionally, the peer recognition and appreciation that accompanies the self-esteem is next to priceless.

Now consider the fact that you can incorporate terrestrial challenges into your program using your existing natural environment. Don't change a thing. Do not build any bridges, do not make any tire swings, and do not build any obstacles. This is to be adventure -- the natural way! Look closely at your surrounding environment and you will probably discover "valuables" that you did not realize you had. Such things as

trees that have fallen and lodged at a 45 degree angle; moderately steep but low eroded banks of a stream or dry run; trees or rocks in, across or at the edge of a water area; and, even something as commonplace as a single downed tree. All such things and many, many others that you discover will provide you with an almost endless variety of adventure activity options. Best of all, it costs you nothing!

Terrestrial challenges are very accommodating. They will make a home almost anywhere you give them half a chance. They fit nicely in the summer camp program, in the day camp program, in a school field trip, even in an organized recess period. Additionally, as eluded to earlier, they are not a bit fussy with whom they associate. They are great with children, with youth, and with adults and seniors. Moreover, they can be integrated into the programs of many special populations.

Natural adventure is simple, it has its own charisma, it is fun, and best of all, it is normal! And without doubt, it is a great way to help outdoor education weave its web across America.



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