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ABSTRACT

Summarizing the historical development of Adventure Education concepts and programs, this publication describes past and present programs and presents suggestions relative to future programming. Specifically, the following are discussed: (1) Informal Education Programs (Outward Bound; the National Outdoor Leadership School; and other informal programs); (2) Formal Education Programs (college leadership in adventure programs--Dartmouth, Brigham Young, and a list of higher education institutions currently offering adventure education programs); (3) Program Development (the ways and means of program justification and initiation); (4) Funding (quality planning, government grants, and community and business donations); (5) Equipment and Facilities (used, surplus, student owned, and hand made equipment and equipment cost effectiveness, maintenance, and safety); (6) Food (student involved decision making and the weight and cost factors); (7) Program Planning (site selection; group size; program length; ecological considerations; safety; staffing and certification; human relations; technical skills; student and leader responsibilities); (8) Program Evaluation Needs (scientific vs value judgment evaluations; exemplary program evaluations; behavioral objectives); (9) Recommendations (standards; monitoring; testing and research; and information coordination). (JC)

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ADVENTURE PROGRAMMING

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EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CLEARINGHOUSE ON RURAL EDUCATION AND SMALL SCHOOLS (CRESS)

New Mexico State University

Las Cruces, New Mexico 88003

Dedicated to the late Julian W. Smith, with fond memories of that fine friend and great teacher, by one of the many who miss him. He could find and bring out the best in people.

TABLE OF CONTENTS

	Page
Dedication	
Introduction	1
Informal Education Programs.	8
Outward Bound	8
National Outdoor Leadership School.	13
Other Informal Education Programs	15
Formal Education Programs.	16
Higher Education Involvement.	16
Program Development.	19
Funding.	24
Equipment and Facilities	25
Food	29
Program Planning	30
Evaluation of Programs	35
Recommendations.	39
Literature Cited	44
Additional Literature.	47

INTRODUCTION

Some of the definitions of adventure given by a dictionary include: the encountering of risk, hazardous and striking enterprise; a bold undertaking, in which hazards are to be met and the issue hangs upon unforeseen events; a daring feat; a remarkable experience; a striking event; a stirring or novel incident. (37)

Youngsters involved in adventure programs might just say that they were involved in something exciting. A person who had helped to develop the program might say that he was attempting to reach an objective despite hardships and risks. Hopefully both would know that some risk was involved--and the degree of that risk. Provisions, including adequate training and proper equipment, would have been made to minimize the risk. The goal should be worthy of the risk.

Wilderness camping, backpacking, climbing, caving, orienteering, canoeing, rafting, pack animal trips, sailing, cross country skiing, and snowshoeing are some of the activities that are considered adventure programming. All involve some risk that can be minimized with proper instruction, adequate equipment, and good judgment.

This paper will, for the most part, deal with programs in the United States conducted by or in cooperation with

schools. However, since many of the outstanding existing or historical programs are not the product of accredited institutions, some mention of them will be made, particularly when they have made significant contributions to the movement.

The historical background of adventure programs is long and difficult to document. It can be said that much of primitive life in itself was an adventure program. The young learned, by necessity, how to cope with conditions that provided a great deal of adventure.

The young of all species learn by doing. Experimentation is a natural way of learning. Puppies soon learn not to bite bumblebees. Hungry humans learn what can be eaten and how to prepare it. All learn social and geographical boundaries through experience.

With the advent of the industrial revolution, adventure gradually faded into the background for the average individual. Working hours lengthened as man fed machines converting raw material into products. Indeed, humans became machine-like as their operations became more simple and routine in mass assembly methods.

The city dweller has become less aware of all of the processes needed to convert raw materials into finished products. The author remembers stopping on a drive to allow a city-born friend to discover that the 'funny-looking cows' in a pasture really were sheep. In any

given month letters against the taking of life by hunters are written to the editors of newspapers and magazines by vegetarians.

Man is a part of nature and we follow long established patterns either consciously or without realizing it. In many primitive societies there are definite rites of passage that mark the transition from childhood to adult life. (6) In modern life these are lacking. As it will, youth finds its own way. For the athletically endowed it may be renown on the sports fields. In some parts of the country it might be killing the first deer. It might include experimenting with tobacco, alcohol, drugs, shoplifting, other petty thefts, or sniping at police.

The young seem to recognize a need for self-testing and proving themselves physically, intellectually, and emotionally. If they do not learn their capabilities, they miss a part of the maturation process.

Adventurous activities seem to have great appeal for young people. They can provide great motivation for learning; develop physical fitness and awareness; and help develop social interactions, while being exhilarating.

Adventure programs not only need a worthwhile goal, but that goal must be somewhat difficult to attain if it is to be worthy in the eyes of those who seek it. At the end, students need to know that they have been tested and

have accomplished something unusual or, better yet, something exceptional.

Adventure programs contain a collection of ideas from many sources. Programs vary greatly but do have some commonalities. Most have an aura of risk, real or developed. New experiences, skill development, and thought patterns are usual. Close interaction with people in small groups usually is called for. The student must look at himself very objectively. The student group is put into an environment that cannot be ignored.

Many claims are put forward by the program promoters, such as improvements in self-image, self-respect, self-satisfaction, self-realization, strength, endurance, decision-making, coordination, determination, compassion, increased potential; and heightened sensory perception and awareness of and respect for individual differences. Such claims may be difficult to prove, but if anything, they are equally hard to disprove.

To the casual observer, these programs are concerned greatly with physical development. This is a great misconception and oversimplification. Physical exertion is a part of most programs. However, great physical strength is not as much required as is endurance, which is more a state of mind.

Programs use a number of techniques to accomplish their ends. Physical activity is one that comes readily to mind.

While it is present, it is not necessary that individuals have a great deal of physical ability when they enter a program. The intentional use of stress usually is involved. Challenges are presented that cannot be ignored. Nold states the function of the stress as "...overcoming difficulties, fear, hunger, loneliness, [are used] as a means of unsettling a personality sufficiently to encourage reassessment, a fresh view. Overcoming difficulties gives one increased confidence, a sense of increased potential; success reinforces success." (17)

William James' essay, "The Moral Equivalent of War," points out that wartime stresses and daily adventures can lead to character development. He claimed that a person's pride and dignity develop as he realizes that his talents are needed by the group. James thought of man as being alienated from nature through civilization. He felt that by confronting natural forces, individuals would expose themselves to a new environment that would bring hidden strengths and weaknesses to the surface. Further, this could satisfy primitive urges to belong to a common cause; help develop physical fitness, responsibility, order and discipline; and lead to a lasting interest in nature.

Some adventure programs are looked upon as attempts to conquer the forces of nature. Rather, they should be considered as attempts to understand and cooperate with the influences of nature. As wisdom and judgment develop

with experience, a student learns that man cannot conquer nature at its worst, but that with proper planning and the right approach he can go much further than previously had been thought possible.

Adventure programs often are equated with survival training. For most people wilderness survival training per se has little value in these times. Ideally, it would teach some skills and provide enough judgment to avoid situations requiring survival. In a much broader sense, however, adventure programs do teach survival. The most dangerous animal to a human is likely to be a panicked human, either himself or another. Adventure programs tend to enable individuals to know their capabilities and weaknesses well enough that panic can be dissipated. Through self-examination and close interactions with a small group, one tends to learn a good deal about human nature.

The core of most programs is a small (usually 6-14) group of students with one or two instructors. Often no members of the group have met before entering the program. In many programs, the small group is assembled on the basis of dissimilarity in social and experiential background, with each group having the widest range possible.

For the bulk of the course the group is forced to interact. A micro-society exists in an area and era where nature and the course demand cooperation or discomfort.

Physical, intellectual, and emotional strengths and weaknesses tend to balance out among the group. It would be a rare individual indeed who could master every problem that developed. Throughout their time together, each member of the group has periods of dependency upon, or of helping, others through a difficult period. Usually, by the end of their time together, each member of the group has respect for the strengths of the other members and is aware of areas where support is needed.

Encounter groups use the same principle: applying stress to achieve confrontations and catharsis, but here the stress is contrived. In the out-of-doors, stress is provided by the environment, by the challenge of climbing, or the excitement of white water. It is uncontrived and therefore more easily perceived as real.

Programs based on adventure have been effective with people from almost every social class and culture. Members of every minority group have been involved. Dropouts, delinquents, individuals with various I.Q.s--all have been involved and affected. The programs have given opportunities for the development of self-confidence, a feeling of worth, and a knowledge that individuals have some control over their future. Hopefully, in the process, participants learn that all humans are interdependent and all have work.

INFORMAL EDUCATION PROGRAMS

A number of non-school programs are concerned almost entirely with adventure. Since they have had great influence on the development of school programs, they are within the scope of this paper.

Outward Bound

Outward Bound holds a unique position in adventure programming. Since 1941 it has been giving youth self-confidence and inspiration. It has developed from one small school in Wales to 32 schools in 17 countries around the world with thousands of graduates. Outward Bound is deeply involved with young people, providing them with opportunities to learn more about themselves and their interactions with their environment and their fellow man. Former instructors and graduates have gone on to develop adaptations of the program, both as independent operations and as parts of school programs.

The story of the development of Outward Bound has been written many times. (10,12,27) Essentially it was based on the thought of Kurt Hahn, an educator forced out of Germany as Hitler rose to power. In England he founded another school, Gordonstoun. Like Salem, his school in Germany, Gordonstoun placed a great deal of emphasis on physical and emotional, as well as intellectual development. He allowed local boys to use the facilities of the private

school. Eventually a 'county badge' scheme developed that granted awards for achievement.

During that period German submarines were sinking great numbers of British ships. Lawrence Holt of the Blue Funnel Line was alarmed at the large number of young apprentices who were dying. He felt a need to help them be as tenacious of life as the older seamen. Hahn came forth with a plan for a school to train them. That school at Aberdovy, Wales, grew into Outward Bound as we know it today.

Outward Bound teaches outdoor skills, but makes no claim of developing experts. Instead, Outward Bound, in the words of Hahn, 'impels into experience'. The approach is to cram into each course an incredible amount of experiences the students had never considered themselves capable of achieving.

Some of Hahn's philosophical assumptions were:

that one revers life for having experienced it
in very real and dramatic terms

that from successful experience in an elemental
setting, one can better learn to respect self

that from respect of self can flow compassion
and concern for others

that from compassion for others one draws the
commitment for service to man

that in genuine service to the benefit of others,
one best expresses on a day-to-day basis his
reverence for life itself. (22)

Programs vary greatly from school to school. National objectives play an important role in this, i.e., the goal of the African School is development of civil service people who can do physical work in harmony with members of

other tribes, the Malasian School stresses interracial harmony, etc. A major influence is the physical surroundings of the schools: those near the sea use sailing and pulling boats as major emphases; mountain schools emphasize climbing, etc.

Some commonalities in program do exist, of course. Each school provides students with instructions on skills that will enable them to cope with the physical demands of the terrain. The students of each school make up an emergency rescue crew. All schools have expeditions, trips into wild environment -- first with the patrol and later with smaller groups that are not all made up of members of the same patrol. Each school has a 'marathon' where students test their endurance and travel skills. Service projects are a part of every course. Each student keeps a journal. Early courses required each student to pledge not to use alcohol or tobacco, but many courses are dropping this. American schools pioneered the 'solo' -- a time (usually about 72 hours) when each student is alone with his thoughts, minimal equipment, and food that is to be used only in an emergency. Students generally fast or live off the land. Some of the non-American schools now have adopted solo.

Outward Bound gets some excellent instructors. Euell Gibbons, Alan Villiers (the British sea captain), Paul Petzoldt and others he brought with him to found the National Outdoor Leadership School, Larry Dean Olsen, and

other leaders in the field, have all been instructors at Outward Bound. Since there are many applications, it can be a matter of selecting the best from those who apply.

A high percentage of the staff are certified teachers, and advanced degrees including the doctorate are not uncommon. In addition to formal education, most of the instructors have credentials and experience in various technical skills; their backgrounds tend to be both broad and deep.

British courses always include some instructors from the military, navy, merchant service, police, and fire departments who have been selected by their superiors and put 'on loan' to Outward Bound. Many Outward Bound schools operate year round and can keep good instructors on a full-time basis. The central organization, Outward Bound Ltd., does some informal placement and helps schools get experienced instructors who would like to try working in another part of the world. In the United States, schools at one time had a policy of including at least two British instructors on each course. (20)

Outward Bound instructors seem to have developed another source of placement. They start their own operations. The programs at the National Outdoor Leadership School, Brigham Young University, Prescott College, and other places all have been developed by former Outward Bound instructors who perhaps decided either that something was lacking or that emphases could be changed.

Outward Bound has been involved in year-round adventure programming since 1941. The schools have had great influence on each other and on other programs, while adapting ideas from other sources. When the Peace Corps started, many volunteers went through some aspects of Outward Bound. 'Freddy' Fuller, then Warden (director) at Aberdovy, was invited to Puerto Rico to help start Peace Corps training there. He returned to Wales with the water survival technique of 'drownproofing' that has become an important part of the Aberdovy program. (5) Another innovation he brought back was the urban-based 'City Challenge' course inspired by an aspect of the Peace Corps training. (10)

The history of Outward Bound shows many examples of interaction between educational institutions and informal education. With more and more emphasis being placed on the wise use of the out-of-doors, man and the use of his leisure time, self-discovery, and interaction with others, Outward Bound may have some ideas that formal education can use. Since its founding, the movement has been involved with schools and education. Today many colleges and high schools grant credit for Outward Bound courses.

In the United States, Outward Bound is working very hard at developing programs in conjunction with schools. Most U. S. Outward Bound schools have arrangements with colleges so that credit can be granted. All of the schools and Outward Bound Inc. offer extensive aid in helping to get school systems started with adventure programming and

other adaptations of Outward Bound activities. These adaptations are concerned chiefly with "1-motivational programs, 2-human relations programs within a school, 3-an alternative to traditional physical education, 4-curriculum enrichment, 5-faculty development." (18)

Outward Bound Inc. is a non-profit, tax-exempt corporation formed to foster development of Outward Bound schools in the United States and to encourage use of the Outward Bound educational concept within traditional learning programs. (19)

"We have never sought monopoly either for our ideas or our training and we greatly welcome all extensions of 'Character Training Through Adventure' under all reliable auspices." (12)

"In many cases elements of the Outward Bound programme were assimilated into the practice of schools which for good reasons felt unable to adopt the whole. A large number of local education authorities as well as voluntary organizations established their own schools and centres for training in outdoor pursuits in Scotland, the Lake District, Snowdonia, and elsewhere. This was a positive gain and it is no small advantage that there should be a widely differing approach...to broadly similar purposes." (10)

National Outdoor Leadership School

The National Outdoor Leadership School, another private adventure organization, has been influenced strongly by the thought of Paul Petzoldt. He was chief instructor at the Outward Bound School in Colorado in 1963 and 1964. (25)

Paul is an extremely aware, confident, respected outdoorsman who has been climbing since 1924. (25) He was selected

by Outward Bound because of his wide experience and abilities. The mutual respect between Outward Bound and Petzoldt is a tribute to both.

In the summer of 1969, I took courses at both Colorado Outward Bound and the National Outdoor Leadership School. The personnel of each school had nothing but praise for the other organization. Outward Bound seemed to regard its role as one of developing compassion, self-respect, awareness of self, and the intra-dependence of man, while N.O.L.S. was concentrating on developing skilled outdoor leaders who could use an area with minimal ecological damage. Neither school felt threatened by the other and both freely recommended the other school to potential students who were looking more for the other's specialty. (13) The original goal of the author in 1969 was to study and compare the two programs, but such comparison was impossible. Both are very good at what they claim to be, while offering a good deal of the other's specialty. The quality of the experience in each is highly dependent on the instructors of the patrol. In both cases the instructors the author had were excellent.

One reason for starting the National Outdoor Leadership School was that Paul:

"...was shocked into the realization that nobody had really trained outdoorsmen in America...we couldn't hire anyone that met my standards. We could hire people who knew how to do one thing well: climb mountains, fish, cross wild rivers, cook, plan rations, recognize flora and fauna,

read topographical maps, and teach and motivate. But we could not find a person who had been trained in all those things! They didn't exist...I thought the best thing I could do for American youth, if they were going to use the wild outdoors, was to prepare better leaders for such experiences." (24)

National Outdoor Leadership School has offered a number of different kinds of courses in several locations. The basic course is the wilderness expedition in Wyoming. Other courses that have been offered are the Mountain Guide, Junior Course (13 years old and up), 39'ers (for older students), a horsemanship course designed for pack animal trips, winter mountaineering, white water canoeing, and one on caving. The school has spread geographically with courses in Alaska, Connecticut, Baja California, Mexico, and Africa.

National Outdoor Leadership School also has become involved with formal education. Its courses have been accredited by the University of Wyoming and Kansas State Teachers College. Both institutions have provided instructors for National Outdoor Leadership School courses. (15,16)

Other Informal Education Programs

Smaller programs outside of formal education include youth organizations such as scouting, 4-H, and church groups. A number of private corporations and camps also are involved. Currently, community park systems also are becoming interested. Some organizations are being formed

for the purpose of developing such programs (i.e., Project S.T.R.E.A.M. - St. Louis Regional Adventure Movement, which is funded by the Danforth Foundation with a county-funded base camp).

FORMAL EDUCATION PROGRAMS

Adventure programming is spreading rapidly as a part of education. The number of schools and agencies involved is difficult to discover because of the general lack of information on developing programs and their sporadic and rapid increase. The Outward Bound catalog in 1972 claimed that more than 250 traditional secondary schools and institutions of higher learning had been introduced to Outward Bound methods and philosophy. (21)

It is impossible to even attempt a listing of secondary schools and junior high schools involved in adventure programming. Generally the programs take the form of curriculum enrichment and alternatives to traditional programs in various subject matter areas and attempts to improve individual relationships and motivation within the school.

Higher Education Involvement

A number of institutions have used adventure programming in different forms. Dartmouth College has long had an outdoor program with the Dartmouth Outing Club and the Dartmouth Ecological Society using wilderness areas

owned by the school as well as traveling to other areas. (36) Douglas Wade, now on the faculty of the Lorado Taft Field Campus of Northern Illinois University, was influential in the development of the program while he was at Dartmouth as naturalist-in-residence. The program was strong in nature and conservation study. During the Second World War, the school's outdoor program also helped to train 5,000 junior naval and marine officers in the school's V-12 unit. (36)

Larry Dean Olsen is another former Outward Bound instructor who helped develop a program. His program was developed for Brigham Young University, which is at Provo, Utah. It is run by the Church of Jesus Christ of Latter Day Saints (Mormons). Their program emphasizes survival techniques and spiritual development. The Mormon church supports youth work extensively; scouting was adopted as a church program as early as 1913. The Mormon church has a long interest in survival programs backed by its scriptural doctrine. (3) Historically, it has been concerned with emergency survival since before the U. S. Government started Civil Defense preparation. As early as the April 1937 General Conference of the church, each family was advised to store a year's supply of food, fuel, clothing and water.

Brigham Young University offers its students survival technique classes during the school year, as well as a

number of extensive wilderness courses during the summer. Special courses are offered for a number of target populations: married couples, Boy Scout leaders, and boys and girls age twelve and up. Adventure also is offered as a part of other programs. I-STEP, the Individualized Secondary Teachers Education Program, includes a strenuous long weekend activity. (7)

The major adventure program of the university is the month-long Youth Leadership or "All The Way" program:

"The graduates of this program testify of their increased self-confidence, their willingness to accept responsibility for their own actions, their increased ingenuity in solving problems, their willingness to take risks to achieve desired goals, their recognition of the more essential limits of their autonomy and independence, their appreciation for the advantages of divisions of labor, their debt to others in team solved problems, their interdependence with other human beings and their awareness of the urgency or triviality of various social institutions." (7)

Prescott College has outdoor adventure as a major part of new student orientation. Students and faculty live together in a stress program. A high percentage of the faculty, including President Ronald C. Nairn, have been involved in Outward Bound. Unfortunately, the school, like other private institutions, is in serious financial difficulty at this time.

Some other institutions of higher learning that use or have used adventure programming include:

Appalachian State at Boone, North Carolina - accredits North Carolina Outward Bound practica

Bemidji State at Bemidji, Minnesota - Bald Eagle
Outdoor Learning Center

Boston University - S.U.R.G.E., Department of
Education, 4-week summer school and 5-day
courses emphasize wilderness skills.

Chadron State College, Nebraska - Experiences in
Outdoor Education packtrip workshop

Cornell College - weekend campout for freshman
orientation

Earlham College - three-week orientation

Evergreen State College, Olympia, Washington

Keene State - three two-hour courses (Land Travel,
Water Travel, and Ropes and Rocks) and
Operation Live,

Mankato State - experiential learning program

Southern Illinois University - Touch of Nature and
Underway programs

University of Massachusetts - accredits Hurricane
Island Outward Bound practica

University of North Carolina at Charlotte - Venture
program

University of Northern Colorado - credited the first
Outward Bound teachers practica

Webster College, Webster's Grove, Missouri

Wheaton College - orientation and the Vanguard
program

PROGRAM DEVELOPMENT

How do these programs get started? The pattern varies, but in general they start the same way as any other school program. A faculty member is excited enough about the idea to put a great deal of effort into convincing others to experiment. The person who gets a program started usually

has had enjoyable experiences in the out-of-doors and feels that students can learn and do some things outside that cannot be done as well indoors. In informal meetings other staff become interested. Gradually they begin to assess the feelings of administration, parents and students.

There are a number of obstacles to adventure programming in the schools. Some of them are: developing the support of administrators, staff, parents, students and the community; the organization of the school day; liability and responsibility; cost of equipment, transportation, and staff; and general bureaucratic inertia. The modern school has split the school day into short blocks of time with students periodically scattering to different rooms and teachers. One way of surmounting the problem produced by this scheduling is to develop extra-curricular clubs. There are a number of advantages to this approach, the major one being that every student involved is self-motivated. The activities and new friends of a club can increase involvement with school enough to make attending worthwhile to the potential dropout. (33)

Another way is to include some adventure program preparation as part of regular classes and do tripping on the weekends or during vacation periods. A number of schools give credit for this arrangement. Academic field trips have been a part of education for a long time. There is no reason that adventure should not be a legitimate part of the

program. Areas and activities for adventure already exist-- the program developer's problem is to make them educational situations.

The idea that learning can take place effectively through adventure education can be justified in almost any area of study. The natural science teachers can point out that the out-of-doors is a great laboratory. The amount of physics involved in climbing a mountain, canoeing, or backpacking is incredible. Social studies is a natural with the interactions of the group micro-society and increased awareness of man's interaction with the environment. In these bicentennial years a great awareness of pioneer life can be developed. In the summer of 1973 the author met a group from New Paltz College at the excellent reconstruction of Fort William near Thunder Bay, Ontario, Canada. They had spent a year studying voyageur history, constructing authentic equipment and costumes, and were then visiting reconstructions and museums. They were about to finish their studies with a lengthy trip into the Boundary Waters Canoe Area. Language study is an important part of adventure programming. Each student should keep a journal and should be encouraged to communicate in writing and orally. The graphic extension of this communication, in dance or in song, brings the art and music departments into the overall picture.

Home economics can be brought in very effectively in menu planning. The construction of expedition clothing

and equipment is a natural and industrial arts classes can be involved as well. Letter writing for information, development of forms for permission slips, etc., and the general bookkeeping involves the business department. The physical activity and teamwork developed certainly are as valid as those involved in getting a ball from one end of a field to another. In addition, any student can take a leading role in some part of the process. Skills and attitudes developed can become a passport to lifelong leisure-time activity. The Physical Education Department also should be aware of the instruction in health and first aid that can be given.

Counseling and guidance are another natural. Lovett (14) draws the following conclusions about the function of Outward Bound in guidance counseling:

- objectives of guidance counseling and Outward Bound are quite similar
- counselors have a great deal of difficulty in fulfilling their role objectives in the school setting
- the Outward Bound program is structured in such a way that it fosters the fulfillment of counseling objectives
- students who have participated in Outward Bound seem to be more positively aware of self, more confident in decision-making, and more confident in interactions with others who have not participated in Outward Bound
- students working with guidance counselors in a program based on Outward Bound concepts would seem to be more likely to become fully aware of self and others than are those who participate in a similarly structured program without the presence of guidance counselors
- guidance counselors working in a program that promotes the concepts of Outward Bound are more likely to fulfill their true counseling roles and are more likely to foster within students

the concepts which guidance counselors desire to promote than they would working in the traditional school setting. (14)

Human development in many areas is possible when students have opportunities for experiences. Experiential education works well outdoors. The wilderness simplifies issues. It removes a lot of extraneous concerns from people's minds and brings them down to basics.

School adventure programs can cause students and teachers to respond to each other as fellow human beings with strengths and weaknesses, instead of as strangers on opposite sides of a desk. As the distance between them lessens, there is less room for hostility, stereotypes break down, and barriers to learning tend to fade away. Mutual respect develops.

Even programs for groups of educators alone seem to give some results. Hawkes et al. (19) feel that in addition to benefits received at the personal level, many teachers who went through educator's practica display more empathy with students, tailor instruction more to individuals, give students more control over the learning situation, are less concerned over traditional school regulations (dress codes, etc.), and remain strict about students meeting responsibilities and measuring up to challenges. They are more relaxed and open with students. (9)

"Many of the adult graduates of senior Outward Bound courses have become involved in projects to incorporate Outward Bound concepts into their teaching and counseling. Most of this activity has taken place during club and activity time, after school and on school time. Activities and curricula have

ranged from outdoor activities of a typical Outward Bound nature (rock climbing, canoeing, expeditioning, seamanship, drownproofing, rescue training and solo) to units in English classes on compassion, love, man's inter-relatedness." (23)

FUNDING

The problem of expense is ever present but not insurmountable. Interested, creative faculty often are able to justify program development to gain grants from government agencies or foundations. Donations of materials and funds from interested community groups, business and individuals also are possible. If the club approach is used, students can do a good job of fund-raising for projects they feel worthwhile.

Quality planning can go a long way toward the acceptance of a program. It is important that everyone concerned know as much as possible about the program. Personnel, locations, equipment, activities, and safety precautions should be established well in advance. Existing programs can offer a great deal of good advice and usually will help to train leaders in skills. Parents should be well aware of the nature of the program before their children are allowed to become participants.

In planning, be realistic as to the capabilities of the group. They should not be expected to accomplish the impossible. Yet, don't ask too little. Successful adventure programs cannot exist without challenge. The

nature of the program should produce real experiences. There should be little need to contrive them. If students are to develop judgment and responsibility they must be allowed to make some mistakes. This does not mean that the instructor should not intervene if health or safety is threatened. Pace and challenge should vary. Contrast is important. The program should not become routine. Students should be in fair physical condition at the beginning of the program; special care should be given to those with bad knees, ankles, and backs.

EQUIPMENT AND FACILITIES

The wise selection of equipment is important. Funds must be spent where most effective. A discarded #10 can from the school cafeteria usually can be used to cook as good a meal as a pot from a shiny nested cook kit. Most schools have access to government surplus outlets. Social service agency thrift stores are excellent sources of equipment and clothing. An excellent bargain was made by a N.O.L.S. student who bought a nice pair of wool trousers at a thrift store for 25¢; when he put them on the first time he found a 50¢ piece in the watch pocket!

Don't overlook what students might already have. Many families already have a good deal of outdoor equipment. Do be sure to check that such gear is suitable for any given trip. Once on the trail, the group is pretty well forced

to use what they start with and poor equipment can produce needless discomfort.

A good deal of equipment can be made by the students. Kits are available for clothing, tents and packs, but there are also many good designs that can be made from raw materials. Outdoor magazines often carry good ideas for home-made equipment. In our assembly-line world, pride in workmanship is a rare commodity. This is one way it can be taught. There are other advantages in student-made equipment. The person who has invested time and money in making something takes better care of it and is eager to use it. While making the item the student can learn about materials and workmanship, enabling him to tell the difference between a well-made item and something that won't last. With good guidance, some elaborate and excellent projects can be made. Many students in the woodshop class at Okemas, Michigan, use class time to make canoes. The instructor and his students demonstrated their canoe building at the Michigan Outdoor Education Conference at Clear Lake in 1972. The following year students at the Michigan School for the Blind were making canoes. Both schools used them for tripping.

In many areas rental of equipment from outdoor sporting goods stores is possible. Groups going to areas where specialized equipment is available should 'shop around'. Most rental places are very generous to schools and youth groups; they know that these are a source of future customers.

In some cases full-outfitting with all food and equipment actually can be less expensive than the cost of transporting it. Another advantage of renting on such trips is that the equipment really is suited for the area in which it will be used.

In starting programs, the outlay for equipment can be high. It must be remembered that well maintained good equipment will last for many years. The equipment for an outing program can be used by the entire student body for a number of years. It would be interesting to compare the cost per student with that of equipping the school's football team.

Equipment that involves health or safety must be looked at with considerations other than cost. If climbing is to be done, good safety helmets should be required; ropes and other gear must be safe. Clothing and sleeping gear are an important defense against hypothermia, and must be of a type that is able to maintain body heat. Since weather often must be endured rather than avoided, consider wet insulation value as well as dry. Protection against insects can be a matter of more than comfort. Lighting and heating devices should be as foolproof as possible and users should be instructed properly in their safe operation. Spare fuel containers must be well marked and safe. Safety is an essential part of every adventure program and must be considered in every aspect of the program.

Good used equipment should be made available for sale to students after a course. In this way, equipment will not become excessively worn before being discarded and any temptation which might exist for students who do not know where else to readily acquire gear is avoided. Equipment used in programs of this sort often gets a great deal of sentiment attached to it by the user.

If a fixed base is used, a facility worth considering is a rope course. The name of the area depends upon the place and era. It might be herbertisme, obstacle course, confidence course, skills course, or something else. The types of problems presented on the course vary. In general it can be said that such an area presents the most indirect and inconvenient way to get from one point to another.

All of these courses, if traced back far enough, likely are derived from the work of George Hebert. Hebert was responsible for the physical training of the French Navy during the First World War. He was greatly influenced by Rousseau and was "...opposed to analytical exercises and controlled movements which he considered were artificial and purposeless. It seemed irrational to build gymnasiums and apparatus when nature offered so many excuses for physical movements." (2) He felt that "...every obstacle, whether natural or manmade with indigenous materials, became the essence of herbertisme." (2)

In general, the problems go from simple to complex. Most are as much mental as physical. Some of the skills that are brought out are balance, jumping, climbing, crawling, lifting, running, and awareness.

The course can be used in many ways. All enable the intelligent observer to determine the degree of ability of those 'doing' the course. Each obstacle gives opportunity for development of skill and confidence. Since only one person should be negotiating a problem at a time, other members of the group will be offering support, both emotionally and physically. Ideally, a group will develop a good deal of interdependence and trust.

Usually the problems can be negotiated in a number of ways. Experience, body-conformation, and some guidance by instructors and fellow students give clues. But there is not necessarily a 'right way' to overcome most obstacles. Ideally, each person should go through the problems in a way that presents the greatest challenge to his ability.

The most readily available resource for those interested in developing a rope course is 'Project Adventure.' (26)

FOOD

Selection of food items and menus is another opportunity to develop decision-making skills. Students should be involved in the selection. The amount of food taken is a major weight item for trips. Generally it should be about

two pounds per person per day. Canned foods are heavier because of container weight and the water within. Disposal of the cans becomes an additional problem. Dried foods are generally a much wiser choice. Learn the carrying capacity of the group. Some method of re-supply may be necessary for longer trips.

In general, avoid pre-packaged trail foods. Adding water and a package of food to a pot doesn't teach much about either cooking or problem-solving. In addition, regular supermarket type items are much less expensive.

PROGRAM PLANNING

Isolated areas usually are selected for programs for a number of reasons. They provide distance from distractions, students have an opportunity to better understand nature in its original state, and contrast with familiar areas also is provided. Contrast is used a great deal. It provides changes of pace and opportunities for feelings of some success for all.

Small groups should be used. In that way students have close involvement with every other member of the group. Superficial factors fade away as each member observes the reactions of other members to the same situation. While learning to know their own reactions, students usually develop great appreciation for individual strengths, self-respect, and a concern for others. They learn interdependence and the importance of communication.

The length of programs is important. They must be long enough to produce the needed impact and break down 'false fronts' but short enough to prevent the students from becoming satiated. Ernest 'Tap' Tapley reports that Outward Bound experimented a good deal with course length and 26 days seemed about right for what they wanted to accomplish. (32) Other programs vary from a long class period to 36 days. Program length must be based on objectives and time available.

The wise use of wild areas is critical. Introducing large numbers into ecologically delicate regions cannot be taken lightly. Thoughtless misuse of resources by a few individuals or groups can result in the closing of areas and facilities, and needless destruction of the environment. It also produces negative feelings, a poor public image and poor public relations. (36)

If we were to pick the one important factor in adventure programming it would have to be safety. We are dealing with human lives in programs that are by their nature more hazardous than the daily activities of most people. Students must be well supervised, properly equipped, and prepared through training and general fitness so that they can handle danger level-headedly and in a safe manner. Judgment and organization, once acquired, can go a long way toward avoiding hazard both during the program and later in the lives of the students. Risk is present, but it can and must be minimized.

Problems will arise if students going through courses learn the joys of the activities without learning about proper equipment, safety precautions and judgment. Somehow these things must be transmitted in addition to skills. Unfortunately, everyone known to have been involved in adventurous activities is considered an expert by those who have not. Even worse, some of these 'experts' do not realize that they are not as experienced as they should be to lead some activities. The greater the numbers involved the more likelihood of tragedy.

The important thing about accidents is their prevention. Small-group leaders with good judgment are crucial. Proper equipment for the activity is important, and students require proper instruction, supervision, and understanding.

Death and injury are unpleasant to consider but the possibility cannot be ignored. Anyone involved in developing adventure programs should be fully aware of the legal implications. Van der Smissen is well-versed in both law and outdoor programming and likely the best resource person on legal aspects of such programs. (34,35)

Vast numbers of people have gone through these programs. The number of fatalities and severe injuries has been quite low proportionately. Outward Bound, with its strenuous program, went almost 20 years and had served over 40,000 students before experiencing its first fatal accident. (10)

Getting accurate information about accidents is difficult. Writing about them can be equally sensitive. Accidents have occurred and, like most accidents, usually are the result of improper use or lack of equipment or of someone doing something contrary to instructions or common sense. Any accident or near accident should be reported and reviewed in order to prevent repetition of errors.

Student reaction to the course will depend largely upon the human relations and technical skills of the instructor. The quality of the small-group instructors can make or break a program. Their selection, training, and care are worth careful consideration.

Staffing a program with qualified people is a major problem. Until a good leadership certification program is devised it will remain so. If it is assumed that each small group should have an instructor who is a certified teacher; skilled in first aid, water safety, outdoor skills, and nature study; knows the history of the area; knows weather, nutrition, survival techniques, equipment repair, and rescue techniques; has the ability to conserve the area being used; and has judgment and maturity, we are assuming a great deal. When, in addition to the above, we have to add qualifications for particularly hazardous activities, such as climbing, caving, scuba, etc., and the ability to handle groups well under all conditions, the population that can be drawn from becomes small indeed and to a great degree economically

unfeasible. Therefore most programs must help develop already available individuals. Rather than selecting staff upon the basis of skills alone, look for maturity. The ability to know when not to attempt something can be more important than having the skills needed to accomplish it. Human relations skills are as important as technical skills.

Since the bulk of adventure education programs are started by teachers with outdoor interests, a great deal can be accomplished if they are willing to work at improving their existing skills. If instructors are allowed to develop programs around their strengths and interests, the program will remain fresh and viable for them. Staff should be selected with total versatility in mind and be encouraged to learn from each other. Individual specialization can lead to difficulty when replacement is called for.

Certification can be a morass to enter upon. There are already a large number of organizations offering training and certification that could be extremely useful. At the same time, there are extremely qualified individuals who have learned their skills through experience or by more or less apprenticing themselves to accomplished individuals. Organizations tend to recognize only their own ranking systems and some of the certificates can be held only by dues-paying members of the organization that issues them. The individual who applies because he wants to develop his skills can lead students into places from which it is very difficult to

retreat. The good instructor must be aware of his students' abilities. Instructors should spend a good deal of time with the students. One of the most difficult tasks of the instructor is knowing when to let the patrol learn by its mistakes and when to give guidance.

The burden of responsibility is heavy for the instructor; lives depend upon his judgment and skills. Instructors are a model for the student both in skill development and philosophy of life. They should be aware of this responsibility as well as their responsibility for the health and safety of their charges.

As programs become established, the best students should be encouraged to return for training as instructors. They will be more aware of local environmental factors, the philosophy of the program, and the reactions of students to elements of the program. They will tend to have more pride, concern, and understanding for the program. An established program should consider special training courses for potential instructors, followed by at least one course as an assistant instructor before full responsibility as an instructor is given.

EVALUATION OF PROGRAMS

With the emphasis on Management by Objectives, proof of meeting objectives is needed. Since progress in the area of affective domain is difficult to measure and objectives are difficult to describe, that area of education

is being neglected. Until tests can be devised that can really measure character development, improvements in levels of maturity, acceptance of responsibility, and other intangible factors, the real worth of adventure programs will be unproven and a matter of value judgment. There is nothing wrong with value judgments as long as one remembers that they are a matter of opinion and makes no claims of proving the unprovable.

In some minds adventure programs could be considered primitive, irrational, and unintellectual. The programs are designed to supplement the intellectual side of human potential with more spiritual qualities. All sorts of technological innovations have been adopted in education and hitherto undreamed of learning opportunities exist. We have many well-informed people, but are 'better' people being developed? Are our methods developing people who are any happier, wiser, more mature and responsible? Are they capable of further growth after they leave educational institutions? Can they interact capably with others? If not, improved educational technology and methodology may be of little value. The bulk of human failures likely are psychological and social, not academic.

The development of ways to prove the worth of adventure programs is likely the major breakthrough needed in the field. Most of the programs try to make up for this lack with a great many flowing expressions of feelings by

participants, staff and observers. Standard personality inventories often are used in pre- and post-tests for evaluation of the experiences.

Unfortunately solid data to prove that these programs are beneficial are almost nonexistent. Staff of these programs tend to be far more involved in planning and carrying out the activities than documenting them. Overall, there is lack of ability to measure effectively what supposedly is being done in the field of affective education. As Nold says, "As a science, psychological research is where geography was at the time of Columbus." (18)

The goals of adventure programs vary. Schultz discusses programs of public and private, urban and suburban, day and resident schools with wide variation in objectives and methodology. (30)

Some of the research on adventure programs has been sponsored by the agencies being evaluated and might be considered suspect to some extent, yet worthy of some attention. One study in Great Britain concerned itself with felt values of the course by students. Student feeling of value ranked:

- 1-improved physical fitness and euphoria
- 2-ability to face hazard and overcome problems and difficulties
- 3-ability to mix with people and have tolerance for views
- 4-improvement in or learning of new outdoor skill
- 5-better understanding of small group working successfully
- 6-appreciation of beauty of countryside and need for conservation

- 7-individual help given by instructors
- 8-value of discipline of giving up smoking and drinking
- 9-opportunity to participate in rescue activities and community service
- 10-enjoyment of intellectual and cultural activities during the course (4)

Each of the values was ranked highest by some students.

As of late, Outward Bound has been putting forth a good deal of effort in attempting to clarify its educational objectives and measure behavioral changes induced by its courses. (3)

"Compared to a matched control group of students, and as a consequence of Outward Bound training, these inner-city disadvantaged students begin to develop those attributes of character which act as a foundation for achievement motivation and for mature social participation. Specifically, compared to control students, the Outward Bound students show a significant change in attitude (a) in regard to themselves -- perceiving themselves as more active, stronger, and generally more positive and less alienated; (b) in regard to others -- demonstrating more capacity to see others as individuals as well as a greater tendency to view peers and teachers as more positive and helpful, accompanied by a more positive attitude towards participation; (c) toward the possibility of their reaching generally positive goals as well as demonstrating a more mature goal orientation as expressed by greater flexibility of means." (20)

Some research also has been done on why students go into voluntary programs. Henry's thesis could be of great value to program planners. (11) Scorsby is also worth examination for reactions to programs and the way adult students use their experiences. (31)

RECOMMENDATIONS

There seem to be a number of real needs in the field of adventure programs.

1-Sets of standards have to be developed. When programs by their very nature involve risks, the risks must be minimized. Guidelines should be formulated for programs, and standards and qualification for instructors should be developed. Students must be as safe as human effort can make them, and natural areas must be cared for. At present, scattered attempts at certification are being made, but if they are to be of real value, they should be legitimized through a standardization.

The strengths of existing standards should be recognized and improved, and if gaps exist they should be discovered and plugged. A strong neutral body, perhaps the U. S. Department of Health, Education and Welfare, should begin to apply itself to the matter. New Zealand's example may be worth considering.

The New Zealand Mountain Safety Council was established in 1965 with representation from Police, Mountain Clubs, Department of Education, National Parks Authority, Tourist Department, Internal Affairs Department, National Water Safety Committee, National Youth Council, Department of Civil Aviation, Forest Service, and Deer Stalkers Association.

The council's main task is promoting closer relationship with all outdoor recreation organizations in the country.

Members of the technical committee serve as consultants for the standardization of skill techniques and oversee technical accuracy of publications, etc. They also will determine certification requirements for instructors and help develop courses and workshops. (28)

2-Testing and research must be done to prove that the area has value. This means that objectives have to be clarified and the affective domain will really have to be probed.

3-Research in the field of adventure programming also is hampered by an abundance of written material that often is unavailable. Programs are colorful, 'newsy', and directors are vitally interested in disseminating information about them. However, bibliographies are difficult to develop because as materials become outdated they are discarded and copies of what could be useful historical material are not retained in archives.

The effort of getting and keeping programs in action is a full-time job. Offices are understaffed and busy providing needed support for staff and students in the field. Usually there is little or no time or funds available to answer inquiries other than with form-letters, reprints of favorable articles, and assorted colorful brochures and catalogs.

Established organizations often have their own periodicals. In the case of Outward Bound, each school has its own newsletter as does the National Headquarters, the

Alumni Association, and Outward Bound Ltd. in London. Such publications contain useful material of potentially great value. Much of the material quickly becomes out-of-print and unavailable. Seeking information from many programs often is a matter of sending far more letters than are ever answered. To improve chances of getting such information, one often must go to the programs or their headquarters (ideally after sending a note that leaves no time for a reply). Such visits are most successful when one has been involved in the program, knows someone on the staff, and is lucky enough to arrive at a slow time and when materials are available.

Individuals who have been involved as staff or students of the programs are valuable resources. In addition to being really interesting and generally nice individuals, they usually have their own collection of materials and stories. Unfortunately, materials often are guarded zealously with the idea of future authorship and/or the development of commercial programs.

For all of these reasons it is doubtful that any complete collections of materials exist or can be assembled on even a single program. The development of a master archive could be extremely useful. ERIC/CRESS is the logical repository for such materials and has a good start, but more information needs to be made available to the clearinghouse.

4-Adventure programs are often of interest to young people in areas where they have not been established by schools or other organizations. Private programs may be excellent but are costly for the average individual. To make the possibility of growth through adventure available to all, a system similar to the British Commonwealth's Duke of Edinburgh Award could be developed. (27) It could be supervised locally and perhaps administered by the President's Council on Physical Fitness. In the event that a national program cannot be developed, states should consider it.

The system as it exists in Britain offers a program of purposeful leisure activities grouped into four sections: Service, Expeditions, Interests, and Physical Activity for boys, and Design for Living for girls. The program is open to all young people between fourteen and twenty-one. There are three levels based upon age and performance.

The service component includes practical service to the community and/or training for service. In completing the interests section, candidates pick one or two interests from an approved list and pursue them for a given period. Expeditions involve outdoor skills, including training, short trips, and a final cross-country trip with varying degrees of difficulty. In physical activity the candidates score through athletic activities while design for living

candidates follow a course of instruction in various subjects.

Boys and girls are encouraged to progress toward higher levels. In each area and level the standards are high yet within reach of the average boy or girl. Between 1956 and 1970, some 600,000 boys and girls in the United Kingdom were involved and 240,000 awards granted. (27) Since adults are involved in supervising the award it has enabled different age groups to interact.

The use of adventure programming is rapidly increasing in the fields of education and recreation. Such activities can develop enthusiasm in many who might otherwise not become interested or involved. For successful programs reliable leadership, good planning, and adequate equipment are essential. Documentation of such programs and dissemination of information about them must be improved, and methods of evaluation need to be more fully developed.

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*Outward Bound Inc. has moved from Reston, Va., to Greenwich, Ct.

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