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**ABSTRACT**

"Learning by doing" was the theme at the 1981 Institute on Innovations in Camping and Outdoor Education with Persons Who Are Disabled and was represented in the eleven papers presented. The papers describe the use of various outdoor-oriented media for involving persons with disabilities in participatory activities. Topics consisted of improvement of self-concept for special children using outdoor therapy; use of behavior management interventions at camps; adventure education with people who are disabled; a description of Wilderness Inquiry II program in Minnesota for disabled persons seeking rigorous outdoor recreation; and kayaking with persons who are mobility impaired. Other subjects include: pulk skiing and ice sledding for mobility-impaired persons; preparation for a ski trip for the disabled; orienteering for the handicapped; music as an integral element of camping experience; description of the Michigan School for the Blind and Camp Tuhsmehta; and the inclusion of disabled children in outdoor education and camping programs. Evaluation results of the conference conclude the proceedings. (ERB)

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# THE BRADFORD PAPERS

*Proceedings from the 2nd Annual  
Institute on Innovations  
in Camping and Outdoor  
Education with Persons  
Who are Disabled*

Volume II, 1982  
Gary M. Robb

Indiana University

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# THE BRADFORD PAPERS

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*Proceedings from the 1981  
Institute on Innovations  
in Camping and Outdoor  
Education with Persons  
Who are Disabled*

Edited by  
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## Forward

"Learning By Doing!" That phrase represents the basis for Volume II of *The Bradford Papers*. The out-of-doors offers challenging, stimulating, and rewarding opportunities for *all* persons, regardless of ability level. Outdoor education and organized camping experiences that include persons with disabilities are opening new frontiers for persons who have traditionally been excluded from such activities.

*The Bradford Papers*, Volume II consists of eleven papers that describe the use of various outdoor oriented media for involving persons with disabilities in participatory activities. These papers represent some of the newest techniques, innovative activities and creative approaches in the camping and outdoor education field. They present ideas that can be adapted for almost any participant, regardless of physical skill, mental capacity or emotional stability. Most importantly, they are field tested, practical and presented by individuals who themselves are actively engaged in their implementation - they do not merely *preach* or *talk* about them.

Each of these papers was presented at the 2nd Annual Institute of Innovations In Camping and Outdoor Education With Persons who are Disabled. This national Institute is held each May at Indiana University's Outdoor Education Center at Bradford Woods, Martinsville, Indiana.

The Institute brings together over 150 professionals, educators and students from throughout the U.S.A. to participate in action oriented workshops that are presented by persons involved in innovative outdoor programming. A summary evaluation of the Institute is also provided as a part of *The Bradford Papers*. We encourage all of our readers to participate in the annual Institute, and hope that this publication will provide some assistance in providing innovative outdoor education and camping opportunities for all persons.

Gary M. Robb  
Editor

## Editors Note:

The first two articles of *The Bradford Papers*, Volume II, are presented as rather in-depth pieces that conceptually provide the basis for many "action oriented" outdoor education and camp programs. They are particularly significant in that they are based on many years of experience by their respective authors.

Tom Smith's article is intended to provide a *basic review* of the concepts of self, special populations and outdoor therapy. Dr. Smith has written extensively on the use and value of the outdoor environment as a "therapeutic facilitator." Dr. Thomas Shea's article entitled Behavior Management and Outdoor Education provides an excellent review of behavior management techniques as related to camps and outdoor education settings, and should be read by "all" camp counselors.

The reader is encouraged to contact both authors for further information related to their work, as well as to refer to Volume I of *The Bradford Papers*.

The remaining articles are succinct descriptions of new and innovative approaches/programs using the out-of-doors with persons who are disabled. The respective authors are all experts on the content area discussed and specific questions or further information should be addressed to them.

G. R.

## SELF-CONCEPT, SPECIAL POPULATIONS, AND OUTDOOR THERAPY

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The importance of attending to the individual's self-concept in any program for treatment or rehabilitation of the disabled or disturbed has been long recognized. Likewise, a primary goal for many education programs dealing with the adjustment and learning problems of special children involves "improvement of self-concept." Many professionals would be appreciative of the words of Arthur W. Combs.

"Perhaps the most important single cause of a person's success or failure educationally has to do with the question of what he believes about himself."

A. W. Combs, 1962

In fact, field professionals who work with diverse groups or special education students or special adult populations might readily accept the words "in a rehabilitation program," or "in a growth and development opportunity," or even "in a life adjustment," as substitutes for the word "educationally" in that comment. Without doubt, what each individual thinks and feels about himself/herself is a very strong determining factor in overall adjustment and achievement in life. It is necessary, therefore, that treatment, education, therapy and rehabilitation programs give attention to the self-concept of their clients.

The central thesis of this paper is that especially designed

outdoor adventure or recreation programs can be a very effective and meaningful component of a total rehabilitation/education/therapeutic program for almost any special group. The mentally handicapped, the physically disabled, the sensory handicapped, the socially maladjusted, the emotionally or behaviorally disordered, the chronically and terminally ill, and the aged, can all find benefit from the energy of the sun, the peace and tranquility of the natural environment, and the stimulation and challenge of the outdoor adventure. It will be argued that the outdoor adventure or special recreational experience can provide opportunity for considerable learning about self, others, environment, self-other interdependency, and self-environment interdependency. As clients are guided toward these learnings via "outdoor therapy" experiences, they find opportunity for much self-evaluation, self-exploration, self-reevaluation, self-acceptance, and self-realization.

### SELF-CONCEPT

Human beings tend to behave in terms of having an awareness and understanding of "self," even though the concept is quite difficult to quantify and define. Webster is of limited help, with dictionary definition of "yourself is you, myself is I." Psychologists and other personality theorists have also had much debate of the concept of self. Behaviorists often insist that the concept of "self" is an unnecessary hypothetical construct,



offering no real explanation of behavior; perhaps, even, the construct deters us from the proper study of observable stimulus conditions and behavioral acts. A parallel argument is that the concept of self, and all the related self-hyphenations, such as "self-esteem," "self-confidence," "self-discovery," and "self-actualization," are impossible to observe and quantify, and are therefore not amenable to true scientific study.

The answer to this debate lies, in part, in recognizing that the "study" of man can proceed along a variety of avenues, and that "scientific study" is but one approach. Contemporary psychologists, especially those of the "third force" which represents humanistic/phenomenological/transcendental approach as opposed to either the behavioristic or the psychoanalytic view, have widely accepted the validity and usefulness of the concept of self. There have been, however, many words of discussion and argumentation about self-concept.<sup>1</sup>

Self-concept provides a central focal point for the theory of Carl Rogers<sup>2</sup>, Abraham Maslow<sup>3</sup>, Snygg and Combs<sup>4</sup>, and Sidney Jourard<sup>5</sup>. Most of these theorists emphasize the reality of each individual's awareness of personal thoughts, feelings, impressions, and considerations about his/her "self" as life validation for the concept. Certainly, in those quiet moments with ourselves, each of us has keen appreciation for some basic central core or force of personal identity or existential awareness. Freud might have considered it as a function of "ego"<sup>6</sup>, and the existentialists might refer to our "eigenwelt"<sup>7</sup>, but the awareness is there.

Virginia Satir has stated a "declaration of self-esteem" which overviews our awareness and confirmation of self:

"I am me. In the whole world there is no one else exactly like me. There are persons who have some parts like me, but no one adds up exactly like me. Therefore, everything that comes out of me is authentically mine because I alone choose it.

"I own everything about me-my body, including all it does; my mind, including all the thoughts and ideas; my eyes, including all the images of all they behold; my feelings, whatever they may be - anger, joy, frustration, love, disappointment, excitement; my mouth, and all the words that come out of it - polite, sweet, rough, correct or incorrect; and all my actions, whether they be to others or to myself.

"I own my fantasies, my dreams, my hopes, and my fears. I own all my triumphs and successes, all my failures and mistakes.

"Because I own all of me, I can become intimately acquainted with me. By doing so I can love me and be friendly with me in all my parts. I can then make it possible for all of me to work in my best interests. I know there are aspects of myself that puzzle me, and other aspects that I do not know. But as long as I am

friendly and loving to myself, I can courageously and hopefully look for the solutions to puzzles and for ways to find more out about me.

"I can see, hear, feel, think, say, and do. I have the tools to survive, to be close to others, to be productive, and to make sense out of the world of people and things outside me. I own me, therefore I engineer me.

"I am me, and I am Okay."  
-Virginia Satir, 1972

There are a number of ways to elaborate and describe the self-concept. Some advocate distinctions between different dimensions of the self-concept, such as those concepts one has of "physical-self," "moral/ethical-self," "social-self," or "family-self." Another common distinction is between the self as "public" and "private." For the purposes of the present paper, it seems best to limit overview of the self to some ideas on basic characteristics and tendencies.

1. SELF-CONCEPT CAN CHANGE. Underlying almost all other characteristics of the self-concept is the potential for change. The self is a dynamic, flowing, becoming force. Sidney Jourard has emphasized the potential and tendency for change in the self-concept in his definition of the self-concept:

"All beliefs about his own nature. It includes his assumptions about his strengths and weaknesses, his possibilities for growth,

and it includes his explicit descriptions of his customary patterns of behavior and experiencing. What should not be forgotten is that one's beliefs about self are just that - beliefs - and they can be changed. One's self-concept is open to change, just as one's beliefs about God, one's parents, or the world are open to change."

-Sidney Jourard, 1974

2. THERE IS A TENDENCY FOR THE SELF TO CHANGE IN A POSITIVE DIRECTION. Carl Rogers has evolved his whole theoretical framework for "person centered therapy" on the assumption that the self seeks growth and change in a positive direction. He has written:

"Whether one calls it a growth tendency, a drive towards self-actualization, or a forward moving directional tendency, it is the mainspring of life, and is, in the last analysis, the tendency upon which all therapy depends. It is the urge which is evident in all organic and human life - to expand, to extend, become autonomous, develop, mature - the tendency to express and activate all the capacities of the organism, to the extent that such activation enhances the organism or the self. This tendency may become deeply buried under layer after layer of encrusted psychological defenses; it may be hidden behind elaborate facades which deny its existence; but it is in every individual, and awaits only the proper conditions to be released and expressed.

-Carl Rogers, 1961

**3. THE SELF IS IN CONSTANT AND DYNAMIC INTERACTION WITH ALL THAT IS NON-SELF.** Functionally, the self has influence on all the perceptions and behaviors of the organism onto the environment, and is, in turn, much influenced by all the perceptions and behaviors from the environment onto the organism. A primary point in the theory of development of self-concept emphasizes that the actions and attitudes of others toward the individual are incorporated into self-identity. In other words, what others see one as, and how others act towards one, one tends to become. Research demonstrates how parental perception of the child as "problemated" will result in a problemated child; and teachers perceptions of students tends to have direct effect on achievement and adjustment. In reverse, it can be demonstrated that the individual tends to perceive the world, and behave onto the world, partly as a function of self-perception and self-definition. This functional circularity of self and non-self is one of the reasons for continual change and growth of the self.

**4. THE SELF IS SELF-EVALUATIVE.** The self has potential to realistically assess the overall strengths and weaknesses of the individual, but there may be unrealistic over-evaluation or under-evaluation. All individuals can provide commentary on what they like about themselves, and what they feel are their basic strengths; and they can, with a bit of difficulty, also provide commentary on what they dislike about themselves, and what they perceive as weaknesses. The self can set down goals for growth, change, and achievement, and can later grade itself as to the

accomplishment toward these goals. Research on the change and growth that unfolds as part of counseling or rehabilitation program has involved pre-and-post assessment of the individual's concept of "real self" or self-as-I-am compared to the individual's concept of "ideal self" or self-as-I-ought-to-be. Discrepancies suggest conflict, and the research suggests a reduction in the amount of discrepancy through counseling is paralleled by modification of behaviors and attitudes. The basic self-evaluation process is of positive motivation, with definition of strengths and weaknesses to that the individual may deal appropriately and realistically with them. It is possible, however, that the process of self-evaluation becomes exceedingly negative. We speak of depression, hopelessness, and pessimism as life-states within which one gets into extreme self-devaluation and feelings of self-impotency. Importantly, of course, as the self has the potential and tendency toward change, individuals can pass through periods of lifestates of negative self-evaluation and back to finding a positive self-regard. In fact, recent research on depression indicates that the proper trek is not away from the self-devaluative feelings, but through those feelings to the recovery.

**5. THE SELF HAS TENDENCY TOWARDS SELF-DISCLOSURE.** While the self is, in part, private, and tends to keep certain dimensions of itself from others, there is a diametric tendency toward self-disclosure, especially when the circumstances and the interpersonal relationships are judged as safe and acceptant.

It is as if the self would rather be open than closed, thus having available the energies which are otherwise used for defensive privacy. However, the self must protect itself and the host organism, so there is tendency to privacy until the world and persons about are viewed as safe and trustworthy. Many who have reported on their experiences in a personal growth group or counseling relationship have noted the intense joy of that moment of realizing that one could be open to others, without fear of rejection or evaluation. The self may, in fact, seek to find the individuals and groups of individuals wherein safety and security are apparent, so that there can be self-disclosure and openness. This enhances the interaction between self and non-self, and thus facilitates positive growth. In other words, the self can create its own feedback loops of exploration and growth by establishing relationships that enhance self-disclosure.

#### 6. THE SELF SEEKS SELF-CONSISTENCY.

In spite of the never ending change, growth, and flexible interaction with the world, there is tendency for the self to develop a core of stability/consistency which is that particular self. Sometimes there is a rigid clinging to those special characteristics and patterns, and this may tend to block the forward moving tendency of the self. Solution to this conflict is found in recognition of change as a process of growth and unfolding, not requiring that one give up all that one has become to that point. The self of yesterday is still a part of the self of tomorrow if we so choose. Another aspect of the self's search for consistency is with regard to internal balance.

When two or more self-impressions or self-desires are in some conflict, then the self seeks toward resolution and a return to psychological homeostasis.

#### 7. THE SELF IS, RELUCTANTLY AT TIMES, SELF-RESPONSIBLE.

While there is obvious tendency for the self to deny responsibility for inappropriate and erroneous behavior, and the various "defense mechanisms" are often called into action to protect the self from the frustration and pain of accepting mistakes, criticisms, failures, and negative self-judgments, the self can develop strength for solid self-responsibility. Therapists note that the growth and personal discovery that unfolds in therapy is usually accompanied by willingness to accept full responsibility for self. In fact, it is from acceptance of all these responsibilities that the individual reevaluates and readjusts. In school programs, a basic goal for growth is often stated in terms of guiding the student toward self-responsibility.

#### 8. THE SELF IS, IN PART, UNIQUE;

BUT ALSO KNOWS OF ONENESS. There is obvious tendency to self-identification of the special unique differences that each is, for the self sparkles in appreciation of its' own individuality. As Satir noted, "there is no one else exactly like me." On the other hand, there is an apparent tendency of the self toward awareness and appreciation of the fact that one is all and all is one. The growing self knows of the "oneness of it all." I have noted that growth seems to be through selfishness and on toward selflessness. The more we seek to discover our own uniqueness, the more we seem to become aware of sameness, with each other and with all that is our environment.



9. THE SELF IS MYSTERIOUS. One of the major motivations of the self is continuous search for further understanding and awareness of the self. However, it is with algebraic progression that the self-search unfolds. Each time one discovers a few more answers to the many questions about oneself, there is a parallel discovery of infinitely more questions. No matter how much one becomes aware of oneself, there is always more to know. When the tendency to know of the oneness is considered, it is obvious that the mystery is beyond the realm of solution. Thus, for self-theorists, it is the process that is important; we seek to become more aware, more understanding, more self-acceptant, and more of all that we are, only to find that there is more beyond to discover and become.

For all who work as counselors, teachers, therapists, or growth facilitators, purportedly guiding weary travelers, self-disheartened clients, or self-searchers in general, it is important to provide opportunity for self-exploration and self-discovery. The guide must seek to create an atmosphere of safety and security, within which the person can risk, reveal, search, and discover. If the individual is provided with opportunity for new awareness, new learning will follow. If the individual is provided with a safe and secure and acceptant environment, that individual will reveal, exchange, test, and share with others. While this climate for personal growth and self-actualization can be created in classroom or counseling center, the outdoor therapist would advocate the potential for outdoor adventure or recreational program in the wilderness.

## SPECIAL POPULATIONS

Any review of the various special populations for whom the outdoor adventure or outdoor recreation program seems to have special therapeutic potential needs to note some basic dangers associated with classification and labeling. In the first place, all children are special, unique in their own beautiful individuality. Likewise, each and every adult is that special person in his/her own existential state. It seems quite inappropriate, therefore, to cluster or categorize a whole bunch of individuals into a particular class or type. To cluster a whole group of unique individuals under the label of "mentally retarded" or "hard-of-hearing" may cause us to lose sight of the special individuality of each person.

A second danger of classification schemes and labeling is that the categorizations involved are seldom behaviorally or diagnostically exclusive or inclusive. Not all the members of any given group possess all the diagnostic characteristics noted for that group, and most of the members of any given group possess some of the behavioral characteristics of other groups. We find indication of "primary" and "secondary" diagnostic labels, and special groupings such as "multiply handicapped", provided as solutions to this problem. Also, as a result of the variability of degree of involvement for many of the symptoms, there often has to be differentiation of functioning levels; e.g., blind as opposed to partially sighted, severely disturbed as opposed to moderately disturbed, and borderline retarded as opposed to retarded.

There is also the danger of people projecting inappropriate meanings and "surplus meanings" onto

the individual under a particular diagnostic label. Often, the child labeled as "handicapped" or "emotionally disturbed" may be viewed by others as "dangerous" or "dumb". Elaborate nationwide campaigns to give accurate data on "mental illness" and "epilepsy" have had but limited impact, and the masses still do not understand actual characteristics and potentials of most of the special diagnoses. Tragically, our perceptions are often colored by our ignorances.

Finally, and perhaps the most problematic of all, there is the danger of the individual perceiving himself in terms of a given diagnostic label or classification description. Such self-perception can be followed by behavior patterns that the person associates with that label. The point has been made often; call a child "delinquent" and he/she will give back the pattern of behavior and attitude that they perceive as delinquent-like. When we call Johnny "learning disabled" or "hyperactive," he may perceive himself as "dumb" or "unable to control himself," and this perception shows through in his behavior. Sometimes, when special educators reach out to provide special programs which require special students to be labeled and transported about on a special little bus, there is such negative impact as to bring question to the thrust of the program.

It might be well argued that we should avoid categorization and classification altogether, and simply treat each and everyone in his/her uniqueness. However, man does tend to project categorical schemes onto the world in order to better understand and exchange information.

Also, professionals know that the clinical, rehabilitative, educative, and recreational programs needed can better organize and deliver services if the clients requiring services are meaningful grouped into special classes. So, in spite of the obvious difficulties and problems of labeling, reality requires usage of classification systems. It is possible of course, to use categorical schemes with careful attention to the inherent dangers, and with clear focus on the individual uniqueness of each member of any special group.

In recent years, special educators have estimated that there are between five and eight million children who require, or would benefit from, special programming. This means about 20% of the total school population, and a similar percentage is the estimate of mental health professionals with regard to the adult population. This suggests that there are nearly 50,000,000 "special people" in our society who need or could profit from "special programs." For all who work with these special people, some sub-groupings or classification of "special populations" is obvious.

Educators, psychologists, doctors, and others have offered a variety of systems for classification of special populations, and there are elaborate sub-categorizations of many groups. The concern of this paper is with a number of broad groups that can benefit from special outdoor adventure and outdoor recreation programs. For each group, there may be some special diagnostic and behavioral characteristics, and some special self-concept problems. The outdoor adventure program may have to make modification in equipment, methodology, or basic program design,

but outdoor experiences designed to facilitate growth and rehabilitation for many different groups are possible.

**A. THE MENTALLY HANDICAPPED.** The mentally handicapped population is historically tied to the concept of I.Q. and "mental age." In recent years there has been a de-emphasis on the I.Q. test score per se, with multi-disciplinary teams making final determination about an individual being retarded and to what degree. There are, for practical purposes, four levels of the intellectual limitation. There is that group called "borderline retarded," which may not be in special programs for the retarded, but who do evidence many of the problems in achievement and adjustment. Special educators see the highest functioning group of retarded as "Educable Mentally Handicapped." This "EMH" group functions in the 50-75 I. Q. range, and can move to adult life with functioning skills typical of the 10-14 year old. For the record, it should be noted that the typical 12-year old is truly a quite capable person. The "Trainable Mentally Handicapped," or "TMH" group functions at the 30-60 I.Q. range, and when reaching maturity are able to function with skills paralleling children in the 5-10 age range. The lowest functioning group of mentally retarded are sometimes divided into the "severe" and "profound" categorizations, but for all practical overview they are the most dependent retarded, and seldom obtain life skills much beyond those of the 4-5 year old child. **OUTDOOR SPECIALISTS** and special recreation programs are most often concerned with the EMH and TMH populations, although there are programs that have given

special attention to the more severely retarded.<sup>18</sup>

**B. THE SOCIALLY MALADJUSTED.** Many special outdoor programs have offered services to groups referred by the courts or the criminal justice system. There are at least four different subgroups which have received attention, each requiring a little different focus. First, there are those juvenile problem children and adolescents who have not reached court adjudication. Community juvenile officers, youth outreach workers, and school personnel provide the identification of this population. They might be considered as "borderline delinquents" and the community based intervention is usually designed to remediate deviant behavior patterns before they require court attention. Second, there are those juveniles and adolescents who can be considered as "delinquents." The label "delinquent" should have base in legal definition, and is usually reserved for those youth who repeat the deviant behaviors and increase the overall seriousness of social maladjustment. For the **OUTDOOR PROGRAM**, the referral sources would include state correctional institutions, court related intervention systems, and the juvenile probation officers. Typically, this group has extreme problems with authority, and there is tendency to either "fight" or "flight" under pressure.

A third subgroup under the broader heading of socially maladjusted is that of the drug user/abuser population. Again, schools, local police, and youth workers may be the identifiers, but here we also find parents, family doctors, and special drug treatment and residential home programs involved. While there may be some overlap between this group

and the two aforementioned, there are many drug problem youth who are not typically street maladjusted and do not overlap the court identified delinquents. Finally, there is the adult offender population. Some OUTDOOR WORKERS have begun to explore the adventure program as a part of a total rehabilitative program for the adult criminal. Sometimes, there is a sequence between completion of a court sentence and reintegration to the community, with the outdoor program offering an important bridge back to the real world. There have also been attempts to involve adult criminals into adventure programs as part of parole conditions, hoping that the social interaction and self-reevaluation will make possible a better adjustment to society.<sup>11</sup>

#### C. THE PHYSICALLY HANDICAPPED.

The special population that is considered as "physically handicapped" is quite self-defining, but there is, of course a broad range of the involvement. We consider the child with a partial mobility problem due to a leg-brace as having a physical handicap, and we also include in this population the individual with quadriplegia or iron lung residency. The limits to which there can be equipment and program modifications so that the physically disabled can partake of OUTDOOR ADVENTURE and outdoor recreation have not yet been reached. One need only to see double amputees in saucer sleds pulled by a sled dog, heading off into the winter wilderness for snow cave camping, to know the potential.<sup>12</sup>

The wheelchair subgroup of this population is a very special one, since there is a fairly large number of this type of disability

due to the tragedy of war. Already the "chairs" are seen in basketball games, cross country jogging events, and creative outdoor adventure sequences such as tree-climbing, rappelling, and kayaking.<sup>13</sup>

D. THE SENSORY HANDICAPPED. Like the physically disabled, this population is somewhat self-defining. However, there are four very different subgroups, as delineated by special education programs and others. There are the blind, and those considered as "partially sighted"; and there are the deaf, and those considered as "hard-of-hearing." Again, the partially sighted and the hard-of-hearing range from near blind or deaf to levels of impairment just below that of normals.

#### E. THE BEHAVIORALLY DISORDERED/EMOTIONALLY DISTURBED.

This special population has been considered as "mentally ill," or of "abnormal personality," but the more recent years have brought preference for the label of "behavior disorder." There are a number of definable subgroups within the total population involved. First, there are those who are most seriously disturbed and disordered; this population might be considered as "psychotic" or "psychotic-like," and it includes children as well as adults. In the children, there are a number of different patterns of psychotic or psychotic-like disorder, including childhood schizophrenia, symbiotic psychosis, and early infantile autism. There is some evidence that the latter group may be of organic etiology, but the behavioral symptomatology is similar. For the adults, the seriously disturbed population is most often hospitalized, and some medical/psychiatric settings have begun to explore the adventure program and outdoor therapy sequence as part of a total treatment approach.



The less severely disturbed, paralleling that historic label called "neurotic," is also represented in both the child and adult population. For children, there is less obvious diagnostic classification, with symptomatology of anxiety, hostility, frustration, withdrawal, and poor self-concept defining; school adjustment and achievement are often affected, and the children may need special programs with therapeutic services available. In the adult population, the more severely disturbed neurotics may be hospitalized, but most are in treatment at mental health centers.

Especially for the children, but also for some adults, there is a subgroup that should be considered as in a temporary state of maladjustment because of excessive stress in their world. Children often have emotional and behavioral struggles in reaction to parental divorce, poor learning capabilities, abusive parenting, and a host of other pressuring situations. Adults can evidence a good deal of stress and emotional upheaval as result of divorce, death of mate, problems for a child, or other situational state. Counseling may be needed, and outdoor therapy might be a valuable part of the program.

**F. THE CHRONICALLY DISEASED AND THE TERMINALLY ILL.** Two very special populations that should be noted are the many individuals with chronic or terminal disease conditions. Both young and old are affected, and there is, of course, a broad range of symptomatology. Some of the conditions are progressive-degenerative, and some are such that the individual will require special attention for a lifetime. Where should a life go when debilitating

arthritic or Parkinsonian conditions set in? What for the middle age stroke victim with aphasic involvement and limitations of mobility? These individuals may be in residence at long-term health care facilities, or in special homecare situations that minimize contact with the world about. Quite often, there is the obvious emotional struggle with the process of dying, and the individual must seek to find self-realization and self-acceptance in new light. **OUTDOOR ADVENTURE** programmers have offered special trips for growth, learning, and sharing, to individuals and groups in this population.

**G. THE AGED.** One of the increasing special populations that warrant attention from the outdoor adventure and outdoor recreation programmers is that of the aged. In recent years, there has been a steady increase in the percentage of our population that is considered as the aged. While some of this population may have problems and troubles that overlap them with the other groups as discussed above, they do represent a unique population for consideration. Until recent years, there was little attention given to the whole process, biologically and psychologically, of aging. In the twenty years since the White House Conference, there has been increasing focus on the problems of the aged, and the improper manner in which our society provides for the senior citizens. All too often, what is supposedly the "golden years" have turned out to be bronze, at best, and sometimes are a very cheap grade of plastic. The National Park Service has reduced rates for senior citizen travelers and campers, but those who are less mobile still have limited opportunities to move to the outdoor environment.

As with the terminally ill, it would seem that **OUTDOOR ADVENTURE AND RECREATION** has much to offer the aged. In those years of sorting out the meaning of life, the place of death, and the purposes of it all, where better than in the rhythms of nature and the patterns of continual flow and change to get perspective. Furthermore, as the aged have opportunity for new adventure and risk taking they have possible new awarenesses and self-exploration.

There, are no doubt, other special populations that could be identified as special targets for the outdoor adventure and outdoor therapy effort, but these listed seem to be prime targets for development of special programming designed to enhance self-concept and bring about improvement in life adjustment/satisfaction.

#### OUTDOOR THERAPY

"There is a wilderness beyond.... and there is a wilderness within," is a quotation that titles a collection of papers by this author. Many of the papers therein are related to the evolving viewpoint that the outdoor experience can provide therapeutic impact beyond that of any standard procedure. In one of the papers therein, titled "My Couch is Made of Pine Needles," the following lines appear:

"Last summer, while trekking over a portage in the Boundary Waters, I rested along the path near a clump of little woodland flowers. I took out my magnifying glass to inspect the beauty and symmetry of the flowers, and was leaning over this marvelous sight when a teenager stomped his foot

onto the flowers. To make a long story short, it was almost two hours later that we moved on down the trail, following a good deal of rather heavy discussion about life and death and the rights of all things. The whole discussion was put into focus by my immediate reaction to his stepping on the flowers, which was to slowly stand each little stem up and pack soft dirt about it. We talked, and soon he had my glass in hand, inspecting the flowers. By the time I heard his "I'm sorry, " I told him that I accepted the apology, but that it was the little flower to whom he should speak. Suffice it to say that that fourteen year old "tough guy" did speak to that little flower...and I think that moment was filled with "therapeutic growth" for that young man."

Thomas E. Smith, 1980

I could give many other personal examples of "wilderness therapy," such as the experience with the 82 year old who had not gone on a canoe trip since 1926, when he was only 32 years old. I can still hear his words, after the sunset atop a rock overlooking the river, "I needed to come back here, it is like going full circle in life." Or the case of Mary and her husband Bill, terminally ill with cancer. She told me some months later, after he had passed away, that the most significant days they spent together during the last year of his life were those on the wilderness trip. I am sure that other therapists and growth facilitators who have explored the potentials of outdoor therapy have stories to validate the concept.

I have also presented elsewhere the "Sunrise Model" of outdoor education and outdoor therapy. Basically, the model notes that there are four different aspects of outdoor program that can be both educative and therapeutic. First, there is the experience that is more traditional, "nature studies." The participant learns about the outdoors and the natural environment, and can also relate this cognitive knowledge to an emotional awareness of the oneness of the universe. Second, there is all that now unfolds as "adventure education," ranging from trips into wild caves and on backpack trails to the innovative ropes and teams courses at a basecamp. Third, there is a body of elaborate theory and practice that can be considered as "awareness education," which involves expansion of sensory appreciation of the environment, and of self. Exercises range from the blind walk in the woods to crawling around on hand-and-knees in the swamp. Finally, there is that dimension of outdoor involvement that can be considered as "expressive education," wherein the participants create things from interaction with the world, such as snow sculpture or foraged nut breads. (Smith, 1980)

With such a range of potential outdoor adventures, it is apparent that there can be involvement of a variety of special populations. It is difficult to set expectancies in advance without error. In his work on a leisure theory for the aged, Max Kaplan warns of the dangers of "behavior tautology," which he defines as "the tendency to interpret what older persons can do by summarial study of what they now do." (Kaplan, 1961) It is obvious that this danger is

also present in work with most other special populations. Twenty years ago, few would have thought that there would be downhill skiers on the slopes who are blind, or deaf, or paraplegic, or amputeed, and yet that is a reality today. Likewise, many might still resist giving the Down's Syndrome retardate opportunity to rapel over the side of a 100 foot cliff, but others are making it happen. We dare not set expectancies that will limit the exploration of new methodologies and new equipment.

If the individual's disability and lack of mobility or basic physical strength makes it seem impossible to explore any particular adventure task, then there can be variations in the standard operating procedure. For example, in order to facilitate a "tree climb" to a lookout platform forty feet in the air, the standard belay line can be passed over a pulley, enabling the belayer to assist the climber as needed. This change in procedure does not imply a simple "elevator" ride up the tree, as the activity facilitator would still be encouraging the individual to test his own physical limits and psychological stress in the climb.

Outdoor experiences can be developed that stimulate and involve all children and all adults. The experiences may be more physical and adventuresome, or may be simple sharing and caring interactions between people. In any case, the outdoor experience can provide the participant with opportunity to become more self-aware, to take a risk -- be it over the side of a cliff or simply into the woods with eyes closed --, to discover personal feelings about the cycles and rhythms

of life, and to assume responsibility for self. These are the aforementioned tendencies of the growing self, and thus the outdoor experience can facilitate growth.

Touching nature, reaching out to draw in the energy of the sun and sitting in a friendly circle about the campfire, create feelings of appreciation for others and for the world. In such appreciation, one usually finds a tranquility of self, and there is an awareness of the flow and timelessness of all that is our world. As one becomes aware of that allness and oneness of man and universe, in the deepest moments of knowing one's basic insignificance, one finds significance. Often, for those moments when center is balanced, and self is in harmony with all that is non-self, the individual sorts out many of the mysteries of self, resolves many of the conflicts of self, and moves a step or two higher toward self-actualization.

#### FOOTNOTES

1. The theory and research on self-concept has been summarized in the following references:

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Combs, A. W., Richards, A. C., and Richards, F., Perceptual Psychology, Harper and Row, Inc., 1976, revised from earlier editions by Snygg, D., and Combs, A. W., 1949, 1959.

2. The major publications of Carl Rogers are:

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On Becoming A Person, Houghton-Mifflin, 1961.

Freedom To Learn, Charles E. Merrill Co., 1969.

A Way of Being, Houghton-Mifflin, 1980.

3. The major publications of Abraham Maslow are:

Motivation and Personality, Harper & Row, 1954.

Toward a Psychology of Being, Van Nostrand, 1968.

The Farther Reaches of Human Nature, Viking, 1971.

Dominance, Self-Esteem, Self-Actualization, papers of Maslow, edited by R. L. Lowrey, Brooks/Cole Co., 1973.

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Individual Behavior: A New Frame of Reference for Psychology, Harper and Row, Inc., 1949.

Helping Relationships: Basic Concepts for the Helping Professions, Combs, with Avila and Purkey, Allyn and Bacon, 1971.

Perceptual Psychology: A Humanistic Approach to the Study of Persons, Combs, with Richards and Richards, Harper and Row, 1976.

5. The major publications of Sidney Jourard are:

The Transparent Self, Van Nostrand, 1964; 2nd ed., 1971.

Disclosing Man to Himself, Van Nostrand, 1968.

Healthy Personality: An Approach from the Viewpoint of Humanistic Psychology, Macmillan Publishing Co., 1974, earlier editions, 1958, 1963.

6. A basic overview to Freudian theory is presented by C. Hall.

Hall, Calvin. A Primer of Freudian Psychology, Signet, 1962.

7. A basic overview to Existential theory in psychology and psychiatry has been offered by R. May, in his introduction to:

May, Rollo, Editor. Existence, Basic Books, 1959.

8. A discussion of the basic "defence mechanisms" or "ego Mechanisms" is offered in the following sources:

Cameron, Norman. Personality Development and Psychopathology, Houghton Mifflin, 1963.

Laughlin, H. P. Mental Mechanisms, Butterworths, 1963.

9. American Psychiatric Association provides a periodically revised manual for diagnostic nomenclature, most recent edition being 1980. The American Association for Mental Deficiency provides a similar manual over-viewing the total field of mental retardation. Most standard textbooks of abnormal psychology, or of special education, or of basic psychiatry, will present an overview. Special education nomenclature is determined, in part, by guidelines from the Bureau of the Handicapped, Dept. of Education.

10. Malcolm Gray has reported on the "Handicapped Unbound Program" offered in Arizona. That program under the directorship of Randy Ford, deals with a wide range of special population. The report by Gray has been published:

Robb, Gary M., editor, The Bradford Papers, Indiana University, 1980.

11. One of the most active special interest groups of the Association for Experiential Education has been that concerned with the "Adventure Alternatives in Corrections, Mental Health, and Special Education." That group has conferenced annually for the past few years, and published papers on dealing with the socially maladjusted in the adventure program. Information on that group can be obtained by writing to:

Association for Experiential Education, Box 4625, Denver, Colorado.

12. For information on summer and winter programming with the disabled, contact:

Wilderness Inquiry II, 111 E. Franklin, Suite 200, Minneapolis, Minn.

13. For information on canoeing and kayaking for the disabled, contact:

Jerry Hitzhusen, Department of Parks and Recreation, University of Missouri, Columbia, Missouri.

John Galland, Vinland National Center, Loretto, Minnesota.

14. For information on a special adventure program and follow-up support group for the terminally ill, contact:

Dennis Kearney, The Carni Youth Project, Minnesota Outward Bound School, Ely, Minnesota



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Satir, Virginia. Peoplemaking, Science and Behavior Books, Palo Alto, Ca., 1972.

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## BEHAVIOR MANAGEMENT AND OUTDOOR EDUCATION

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How can we control this camper's behavior?

How can we control this group's behavior?

Should we reward this behavior?

Should we punish this behavior?

How can we instruct when the children are ...?

Will this intervention work?  
Is it helpful? Is it harmful?

Meeting after meeting is devoted to discussions of these and other behavior management questions.

Behavior management interventions may be defined as all those actions (and conscious inactions) staff members engage in to enhance the probability that an individual or group will develop effective behaviors that are personally self-fulfilling, productive for the individual, and socially acceptable. (Shea, 1978)

Behavior management is a complex issue. It cannot be approached from a simplistic point of view. It is an issue that must be broadly studied and applied with emphasis on several variables: the individual or group, the specific behavior under consideration, the setting in which the behavior occurs, and the individual counselor responsible for behavior management.

The approach to behavior management presented here is eclectic. The interventions described are derived from learning, psychodynamic, and environmental theories.

### THE COUNSELOR/INSTRUCTOR

The counselor is the most important element in the life-space of a child attending an outdoor education program. No other element has greater potential therapeutic impact than the interpersonal relationship between the counselor and the child.

Special programs have been operated successfully under very adverse conditions - lacking adequate facilities, materials and equipment, funds, sufficient numbers of personnel, transportation, and so on. However, no program is successful without counselors who interact positively and productively with children.

### COUNSELOR CHARACTERISTICS

The successful counselor must be an authentic person - a real person. It is difficult by means of an employment application and a brief interview to select an authentic counselor. However, there are several personal characteristics the interviewer seeks in those persons applying for the position of counselor.

**SELF-INSIGHT:** Counselors must know why they wish to work with exceptional persons. They must have an understanding of why they engage in the activities that make up their work life.

**SELF-ACCEPTANCE AND REALISTIC**

**SELF-CONFIDENCE:** The counselors must accept themselves as they are while continuing to aspire for greater perfection. They must be realistically confident in their ability to be a counselor but not so overconfident (having an "I can do anything" attitude) as to be reckless. They must not be afraid to honestly and forthrightly state their practical strengths and weaknesses.

**LOVE AND ACCEPTANCE OF CHILDREN:**

Counselors must love and be able to demonstrate love for children. They must understand that love and compliance are not identical. Sometimes love is demonstrated to a child through discipline. Counselors must accept children as worthwhile human beings, even though they must reject the children's deviant behavior. Counselors must be capable of accepting children who are different from them - whether they are tall, short, male, female, black, white, yellow, rotund, slim, deformed, intelligent, retarded, conforming or deviant.

**AN UNDERSTANDING OF THE BEHAVIOR**

**OF CHILDREN:** Counselors must be able to understand human behavior. They must constantly seek insight and understanding into the child.

**CURIOSITY AND A WILLINGNESS TO LEARN:**

Counselors must have a-bit-of-the-child in them. Like the children, they must be curious about the world and enthusiastically explore it.

**PATIENCE WITH THEMSELVES AND CHILDREN:**

Counselors should recognize that they are imperfect. They must also recognize this quality in others. They must understand that learning is a slow, complex process for both counselors and children.

**FLEXIBILITY:** Counselors must be flexible. They are frequently confronted by boredom and resistance from campers. For the sake of the children, they must know when to change activities to attain a broader objective.

**HUMOR:** Counselors without a well-developed sense of humor will not survive in an outdoor education program. Mistakes and humorous incidents occur daily. Counselors who cannot laugh will certainly cry. Counselors must be able to laugh at themselves and with the children. They may never laugh at children.

In those seeking to be counselors, we seek a balance of the personal characteristics above. It is of little benefit to children if they have counselors who are skilled and knowledgeable in a specific activity but lack understanding and acceptance of themselves and the children in their charge.

**COUNSELOR SKILLS**

Counselors are teachers. As teachers, they need a variety of specific competencies. The effective counselor:

1. Establishes routines in the daily life of the child and group.



2. Sets and enforces appropriate behavior limits without becoming emotionally involved.
3. Does not permit emotionally charged situations to get out of control. The counselor intrudes into conflicts and causes them to stop.
4. Is consistent. Children are confused by counselors who condone a particular behavior today and punish a similar behavior tomorrow.
5. Personally investigates situations before acting. The counselor does not act on second- or third-person information and rumors.
6. Ignores certain behaviors. Many behaviors manifested by special children are normal and age-appropriate. Other behaviors are not significant enough to respond to. The counselor must be selective in responding to and ignoring behaviors.
7. Communicates verbally and nonverbally with children. Counselors must talk with children, not to children. They must learn that many of the things they, personally consider to be universal knowledge are mysteries to some children.
8. Learns to avoid confrontation when it is therapeutically appropriate. Yet, the counselor confronts when necessary for the benefit of the individual or group.
9. Learns to change program activities for therapeutic purposes. Counselors are not so personally committed to "their thing" that they fail to recognize disinterest among their students.
10. Works independently and as a team member.
11. Provides each student with security. The counselor communicates to the child that he or she will be protected from physical and psychological harm.

These counselor skills are learned through experience with assistance from a competent supervisor and experienced counselors.

### GROUP COMPOSITION

Grouping children on the basis of records and admission data is a difficult task (Morse and Wineman, 1957).

Some major variables to be considered when grouping children are age, sex, interests, handicapping conditions, personality characteristics, the degree, intensity, and kind of pathology, and group experiences and skills. The staff should consider these and other variables in relation to the individuals in the group. They seek to avoid extremes in group composition while forming a "balance" group.

Avoiding extremes in group composition includes:

1. Not placing children of greatly different ages and interests in the same group.
2. Not placing a child in a group lacking like-sex peers.
3. Not placing a child with a severe handicap in a group of children with mild handicaps if the placement prohibits the mildly handicapped from engaging in important activities. This potential limitation can be circumvented if adequately trained personnel are available to assist the severely handicapped child.
4. Not placing children with potentially conflicting personality characteristics and pathologies in the same group. Some conflicts and disturbances within any group are anticipated. However, efforts are made to minimize conflicts to manageable levels.

5. Not placing children who lack group experience in a group composed of campers with considerable experience.
6. Not placing a child in a group when he or she is neither ready nor willing to participate in group activities. We are referring here to the severely emotionally handicapped child lacking the skills needed for meaningful group participation. Often, these children remain in a group but do not become members of it. It is desirable to place such children in special groups to learn the needed group skills; then integrate them.

Grouping is a difficult and time-consuming process. Mistakes are made in placements. The wise staff allows an opportunity to evaluate and regroup, as necessary, after the initial week of a program.

### ACTIVITY GROUPS

Activity groups, self-governing problem-solving groups (Lough-miller, 1965) are especially beneficial to children between the ages of 10 and 17 years.

The general purpose of the self-governing group is to expose the members to a wide range of successful interpersonal experiences and to encourage participation, responsibility, and cooperation (Rickard, Serum, and Wilson, 1971). The children and counselors are responsible for daily activity schedules within predetermined limits. The group finds itself in a situation in which the majority rule prevails. Each member is responsible for his or her personal behavior and for the behavior of the group (Rickard and Lattal, 1969).

Some limits on the group need to be imposed by the administration. The administration limits should be few and concerned with dining and work schedules, attendance at all camp functions, transportation, health, safety, and the like.

The group decides (1) the limits to be set on social interaction, (2) how extreme behaviors are to be managed, (3) how activities and schedules are to be planned and executed, (4) who is to be responsible for the various phases of daily living, and (5) how problems and conflicts are to be solved.

The problem-solving process becomes a part of the group's daily life. When conflicts and problems prohibit the group from attaining its goal; the problem-solving process begins. During problem solving, the group attempts to develop alternative solutions to the problem confronting them. The members have two major tasks: (1) identifying and clarifying the problem and (2) discussing and deciding on one or more solutions to it. These solutions can be imposed either immediately or in similar future situations (Rickard, Serum, and Wilson, 1971).

At the University of Michigan Fresh Air Camp, Morse and Small (1959) identified several recurring group problems: (1) aggressive peer behaviors, including hitting, fighting, stealing, scapegoating, swearing, teasing, and bickering; (2) disorganized behavior as a result of high excitement levels; (3) sex play and talk; (4) resistance to the program; (5) improper living habits; and (6) hostility towards counselors. Other problems that may arise within the group are leadership-follower conflicts, planning and scheduling problems, and individual and subgroup task responsibilities.

Morse and Wineman (1957) recommend the application of group life-space interview on a regular and emergency basis. The interviews focused on a number of critical group issues:

1. Existing social realities that inhibit group desires,
2. Existing defense mechanisms that the group unconsciously applies to protect itself from others outside the group,
3. Techniques for application by the members to admit mistakes, misdeeds, and asocial behaviors,
4. Ways to use the group as a setting in which the emotion and frustration may be expressed, and the limits on such ventilation,
5. Strengthening of the group's and individual member's self-image, especially after conflicts and frustrations,
6. Identification, clarification, and finding of mutually acceptable solutions to common problems.

The counselor's role is very significant if group behavior management techniques are to be productive. The counselor must be a model of give-and-take democratic leadership. He or she must allow the group to make decisions, implement programs, and realize the consequences of its actions.

The counselor must allow the group to succeed and fail. Although the counselor allows the logical consequences of the group's efforts to occur, he or she protects the group from constant failure and the individual members from physical and psychological harm.

### LIFE-SPACE INTERVIEW

The life-space interview is a here and now intervention built around the child's direct life experience.

It is conducted by a counselor who is perceived by the child as an important part of his or her life-space. This individual has definite role and power influence in the child's daily life (Redl, 1959, Reinert, 1976). The life-space interview is used to structure an incident in the child's life so that he or she can solve a problem. The interviewer's role is facilitative.

According to Redl (1959), the life-space interview may be applied for two purposes: (1) clinical exploitation of life events or (2) emotional first-aid-on-the-spot.

In the first situation, clinical exploitation of life events, the counselor uses a behavioral incident to explore with the child an habitual behavioral characteristic. This is an effort by the interviewer to use the behavior incident to attain a long-range therapeutic goal. When the life-space interview is applied for this purpose, the counselor assists the child in increasing awareness of his or her (1) distorted perceptions of existing realities, (2) pathological behaviors, (3) hidden social and moral values, and (4) reaction to the behaviors and pressures of the group. The counselors use the interview to discuss with the child more productive and acceptable problem-solving techniques.

The life-space interview is used to provide the child with emotional first-aid-on-the-spot during periods of stress.

The purpose of the life-space interview is to help the child over a "rough spot in the road", so that he or she may continue an activity. For example, the interview

may be applied to (1) reduce the child's frustration level; (2) support the child in emotionally charged situations; (3) restore strained child-counselor communications; (4) reinforce existing behavioral and social limits and realities; (5) assist the child in his or her efforts to find solutions to the everyday problems of living and to emotionally-charged incidents such as fights, arguments, and the like.

As with any counseling technique, the application and effectiveness of the life-space interview is dependent on several variables: the clinical purpose or goal, the specific setting, the training and experience of the staff, and the child, especially the child's pathological condition.

Morse (1971) has outlined a series of steps that occur during the typical life-space interview. These steps are not a formal series. On occasion, steps are omitted and reordered.

Generally, the life-space interview begins with a specific behavioral incident in the child's or group's life-space. The interviewer encourages those involved in an incident to state their personal perception of the occurrence. At this time, the counselor determines if the incident is an isolated occurrence or part of a recurring central issue.

Next, the counselor listens to the individuals involved in the incident as they reconstruct it. The counselor accepts their feelings without moralizing or attacking. Although the counselor accepts the child's perception of the incident, he or she may suggest alternative perceptions of it for consideration.

The interview process then moves into the resolution phase. This phase is non-judgmental. Many problems are resolved at this point in the interview, and it is terminated.

However, if the problem is not resolved, the counselor presents his or her view of the incident in relation to the situation in which the individuals involved find themselves.

Finally, the child or group and counselor attempt to develop a plan to deal with the present problem and similar problems in the future.

Brenner (1969) makes several suggestions concerning counselor behavior during the interview. These are:

1. Be polite to the child. If you cannot control your emotions, do not begin the interview.
2. Sit or kneel so that you have eye contact with the child.
3. If you are unsure of the history of the incident, investigate.
4. Do not confront a child on the basis of rumors.
5. Ask sufficient questions to obtain a knowledgeable grasp of the situation.
6. Listen to the child and try to understand his or her perception of the incident.
7. Encourage the child to ask questions. Respond to appropriately.
8. If the child is suffering from considerable shame or guilt as a result of the incident, attempt to reduce and minimize it.
9. Facilitate the child's attempts to say what he or she wishes to say.
10. Work patiently with the child or group to develop a mutually acceptable plan.

### BEHAVIOR MODIFICATION TECHNIQUES

"What you do is influenced by what follows what you do" (Sarason, Glaser, and Fargo, 1972). This statement is an apt description of the basic assumptions underlying behavior modification. The consequences, and probable consequences, of behavior more than any other factor determine the behavior an individual exhibits. If the results of a behavior are rewarding, the behavior is repeated; if the results are not rewarding, the behavior is not repeated.

The behavior modification practitioner perceives behavior problems as learning problems. The individual has not learned the behavior needed to work his or her environment successfully.

The behaviorist is concerned with what an individual or group does, not why. The etiology of behavior is seen as existing outside of the individual in the environment. To modify behavior, the counselor manipulates the environment and thus the consequences of the child's behavior.

### PRINCIPLES OF REINFORCEMENT

The learning of all behavior is dependent on the principles of reinforcement. These principles are:

1. Reinforcement is dependent on the manifestation of the appropriate behavior.
2. Appropriate behavior is reinforced immediately.
3. During the initial stages of the behavior change process the desired behavior is reinforced each time it is exhibited.

4. When the newly acquired behavior reaches a satisfactory frequency level, it is reinforced intermittently.
5. Social reinforcers are always applied with tangible reinforcers.

These principles must be applied with precision and consistency if a behavior modification intervention is to be effective.

### STEPS IN THE BEHAVIOR CHANGE PROCESS

1. Selecting the target behavior.
2. Collecting and recording base-line data.
3. Identifying appropriate reinforcers.
4. Implementing the intervention.
5. Collecting and recording intervention data.

### SELECTING THE TARGET BEHAVIOR.

The initial step in the behavior change process is the identification of a target behavior (the behavior to be changed). In most human situations it is not difficult to select one or more behaviors that are acceptable or inappropriate to some individual under some circumstances. The practitioner is cautioned against the arbitrary and capricious selection of a target behavior. Decisions leading to the choice of a target behavior are governed by the following considerations:

- a) the overall number of behaviors potentially needing modification,
- b) the frequency of the behavior,
- c) the duration of the behavior,
- d) the intensity of the behavior, and
- e) the kind or type of behavior.

The frequency, duration, intensity, and kind of behavior being changed has a significant bearing on (1) whether a behavior modification



intervention is appropriate, or even necessary, (2) the characteristics of the intervention to be applied, (3) the probable course of the behavior change process, and (4) the probable result of the intervention. More specifically: some behaviors respond to behavior modification interventions efficiently; whereas others are innocuous and need not be changed. The counselor must use common sense and good judgment when selecting a target behavior. As a responsible person, he cannot change a behavior simply for the sake of changing it; nor can he change a behavior so a child will conform simply for the sake of conformity.

Finally, during the process of selecting a target behavior, the practitioner must determine if the behavior is observable and quantifiable.

**COLLECTING AND RECORDING BASELINE DATA.** Information collected before implementing a behavior change intervention is baseline data. Baseline data provide the foundation on which the behavior modification process is established. It is used to determine the effectiveness of the intervention during the process of change.

To obtain meaningful and useful baseline data, the practitioner engages in two activities. First, he counts the frequency of the behavior during a predetermined period of time. Usually, he uses a time-sampling observation technique on a daily basis for a week. Next, the practitioner charts the baseline data to prepare a visual display of the enumerated behavior in graphic form. (See Figure 1)

These two processes, counting and charting, are of paramount importance to the behavior change process. When the practitioner knows the number of occurrences and/or the average duration of the occurrences of a behavior in a temporal framework, he can select an efficient reward schedule before implementing the intervention.

Equally important is the application of baseline data for evaluative purposes. By comparing baseline data to intervention data, the practitioner can determine the effectiveness of the reward schedule and/or the reinforcer. Judgments can be made regarding the responsiveness of the behavior to the intervention.

**IDENTIFYING APPROPRIATE REINFORCERS.** A behavior modification intervention is only as effective as its reinforcer (reward). Regardless of the intervention applied in any behavior change program, if the exhibition of the desired behavior is not rewarded with a reinforcer acceptable to the individual exhibiting the behavior, then the probability of his or her continuing to exhibit the behavior is decreased.

A reinforcer must be rewarding to the individual being rewarded. The only true test of the effectiveness of a specific reinforcer for a specific child is to try it. The two most effective means for selecting reinforcers for an individual are (1) to observe the individual and note the rewards selected when the child is given a choice and (2) to ask the individual what he or she would like to have or do for a reward.

Figure 1

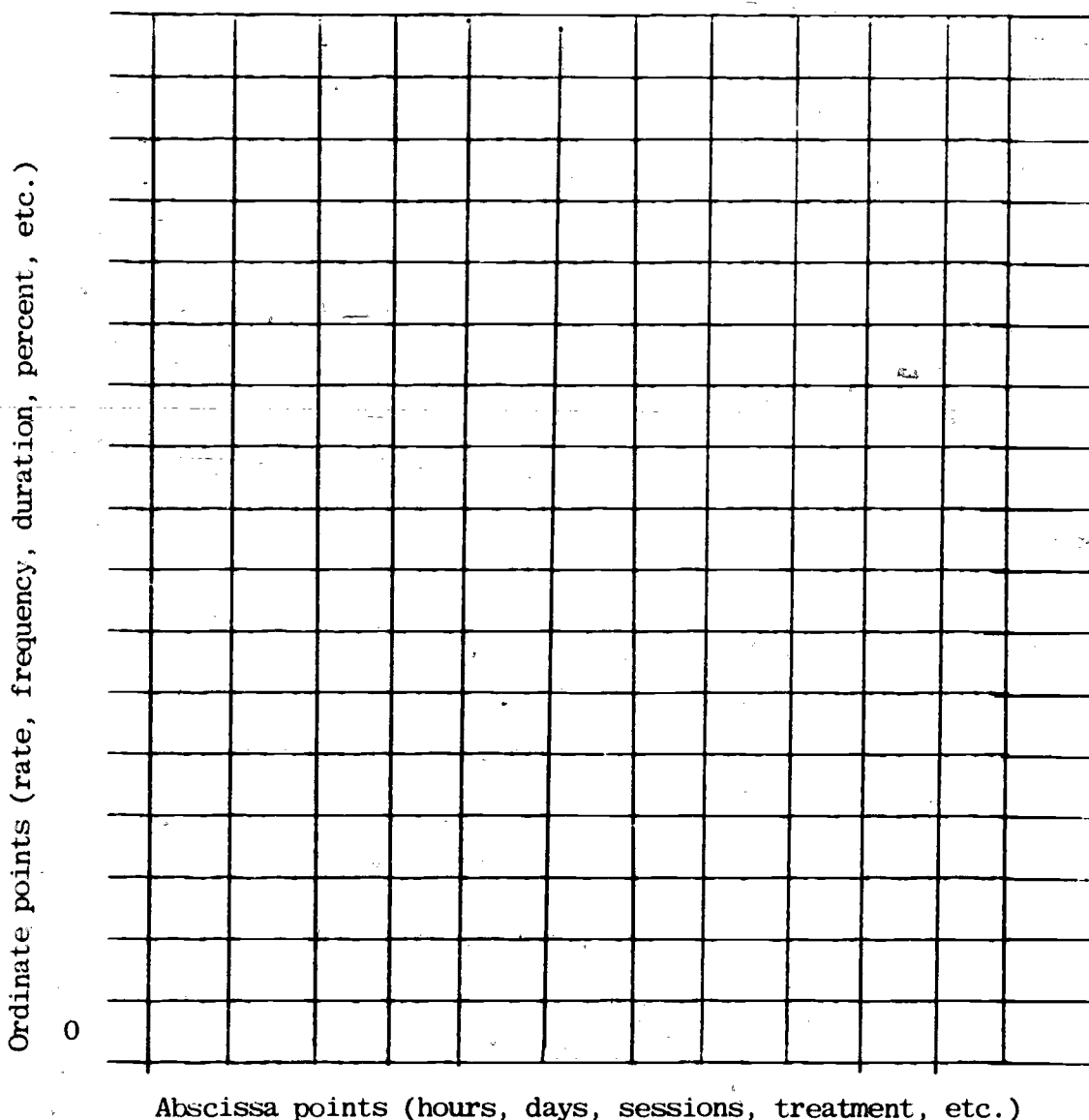
Behavior Chart

Child \_\_\_\_\_

Observer \_\_\_\_\_ Date \_\_\_\_\_

Target Behavior \_\_\_\_\_

DIRECTIONS: Indicate rate, frequency, etc. for vertical axis; hours, days, etc., for horizontal axis. Enter ordinate and abscissa points.



Walker and Shea, 1980

The following are potentially effective reinforcers for application in the outdoor education setting.

### CONSUMABLE FOOD REINFORCERS

- fruit (apples, peaches, grapes, raisins)
- vegetables (carrots, celery, radishes)
- juice, fruit drinks
- ice cream
- soda
- milk
- cake, brownies, cupcakes
- potato chips, popcorn
- cereal

### REINFORCING ACTIVITIES FOR USE WITH FOOD REINFORCERS

- distributing reinforcers
- cleaning area after distributing rewards
- popping popcorn
- scooping ice cream
- preparing snacks

### TOKEN REINFORCERS

- checks and points
- happy faces and stars
- tags, certificates, metals, feathers
- poker chips, trading stamps
- play money

### GAME ACTIVITY REINFORCERS

- table games (checkers, dominoes, tip-it)
- blocks, lincoln logs, legos
- free play
- friend and circle games
- educational games (word, number)
- puzzles
- guessing games
- field games

### REINFORCING ACTIVITIES

- working on self-selected projects
- singing, dancing
- coloring, painting, drawing
- going on field trips, camp-outs, hikes
- having barbeques, cookouts
- helping counselor, instructor, peers
- free time

### SOCIAL REINFORCERS

- verbal praise
- "show and tell"
- work and project displays
- skill demonstration
- clapping and cheering by others
- smiles or winks
- hugs, handshakes, or pats on back

The ultimate goal of behavior modification is to encourage the child to respond appropriately to the social reinforcers. Consequently, social reinforcers are always presented with tangible reinforcers.

### IMPLEMENTING A SPECIFIC INTERVENTION AND COLLECTING AND RECORDING INTERVENTION DATA.

Intervention data provides information on the effects of the intervention during the implementation process. Equally important as baseline data, intervention data are a yardstick for comparing baseline behavior to new behavior. By comparing these two sets of data, the counselor can determine changes occurring as a result of intervention. These data are counted and charted as discussed in the baseline phase.

### METHODS FOR INCREASING BEHAVIOR

Behavior modification practitioners have developed several techniques for increasing the frequency of target behaviors. Among these are (1) shaping,



(2) modeling, (3) contingency contracting, and (4) the token economy.

**SHAPING.** Shaping is the reinforcement of successive approximations of behaviors leading to the desired behavior. Shaping is primarily applied to establish behaviors that have not been previously manifested in the child's behavioral repertoire.

Shaping is accomplished by the consistent, systematic, immediate reinforcement of approximations of the desired behavior. Just as the sculptor shapes and molds an object of art from clay, the behavior modification practitioner shapes and molds a "new" behavior from an undifferentiated behavioral response (Neisworth, Deno, and Jenkins, 1969).

Shaping is like climbing a ladder: one rung at a time with a foot firmly on the previous rung.

**MODELING.** Modeling is the provision of an individual or group behavior after which a child patterns his or her behavior. During the modeling intervention, the child is systematically encouraged to imitate (or not imitate) the model's behavior.

According to Clarizio and Yelon (1967), exposure to a model may have three possible effects:

1. Modeling effect: The child may acquire behavior from a model that was not previously a part of his or her behavioral repertoire.
2. Inhibitory effect: The child may inhibit unacceptable behavior that the model is punished or otherwise discouraged from exhibiting.

3. Eliciting effect: A behavior that approximates the model's behavior may be elicited from a child.

Practitioners applying modeling techniques should consider the following questions:

- . Is the individual cognitively and developmentally capable of imitating a model?
- . Will the individual be rewarded for imitating the model?
- . Is the model worthy of imitation in the child's perception?
- . Is the model acceptable within the social context in which the child functions?

**CONTINGENCY CONTRACTING.** A contract is an agreement, written or verbal, between two or more parties, individuals or groups. This agreement stipulates the responsibilities of the parties as they are concerned with a specific item or activity. Contingency contracting is defined by Becker (1969) as arranging the conditions so that the child gets to do something he wants after he does something the counselor wants him to do.

In behavior modification, contingency contracting is based on the Premack principle: "A behavior that has a high rate of occurrence can be used to increase a behavior with a low rate of occurrence (Premack, 1965).

The simplest contracts can be articulated as x-y statements; that is, if you do x, then you can do or get y:

"If you eat your spinach, then you can have some ice cream."

"If you clean your cabin, then you can play volleyball."

"If you do your reading assignment, then you can join the group on the beach."

More complex contracts are frequently written. (See Figure 2)

The following rules are applied in contract negotiations (Homme, Csanyi, Gonzales, and Rechs, 1968):

1. The contract payoff (reward) should be immediate in accordance with the terms of the contract.
2. Initially, contracts should call for and reward approximations of the target behavior.
3. The contract should provide for frequent rewards in small amounts.
4. Contracts should call for and reward accomplishments rather than just obedience.
5. The performance should be rewarded only after it occurs.
6. The contract must be fair to all concerned parties.
7. The terms of the contract must be clear to all concerned parties.
8. The contract must be honest.
9. The contract must be positive.
10. Contracting, as an intervention, must be used systematically.

The contracts must be freely negotiated and agreed to by both the camper and the counselor. Both parties must agree on a date for review and renegotiation (Walker and Shea, 1980).

**TOKEN ECONOMY.** The token economy is perhaps the most versatile and widely used of the behavior modification interventions. It is a system of exchange that provides immediate feedback cues for appropriate behavior. These cues, or tokens, are later exchanged for backup reinforcers (tangible rewards and activities).

Many children are not able to function appropriately if they must wait an extended time for their rewards. Some children have not developed to a level at which social rewards are meaningful to them. Yet, other children are so anxious they cannot function without immediate feedback. The token economy have proved to be an effective behavior change intervention for these groups of children.

Tokens are usually valueless to the child when the token economy is originally introduced. However, token values become apparent as the child learns the exchange process.

There are ten basic rules to be applied in the establishment of a token economy in the camp:

1. Select the target behavior or behaviors.
2. Clarify and discuss the target behaviors with the camper and/or group. It is a fact that an emphasis on "what you can do" is more palatable to children than an emphasis on "what you cannot do." Many unsuccessful behavior modification practitioners have determined failure by introducing a program as follows: "Now, you people are going to stop this noise and fooling around. I have this new . . . (and so on)." The campers are immediately challenged; they prepare to defeat the counselor and defend their personal integrity.
3. Select an appropriate token. Some tokens can be lost, stolen, or counterfeited. Others are noisy and difficult to handle. It is suggested that tokens be made of soft, flexible materials,

Figure 2

Date \_\_\_\_\_

Contract

This agreement is between \_\_\_\_\_  
(Child's name)

and \_\_\_\_\_ . The contract begins on  
Teacher's name

\_\_\_\_\_ and ends on \_\_\_\_\_ . It will be  
Date Date

reviewed on \_\_\_\_\_ .  
Date

The terms of the agreement are:

Child will \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Teacher will \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If the child fulfills his or her part of the contract, the child will receive the agreed-on-reward from the teacher. However, if the child fails to fulfill his or her part of the contract, the rewards will be withheld.

Child's signature \_\_\_\_\_

Teacher's signature \_\_\_\_\_

Walker and Shea (1980)

such as paper or vinyl, or that they be simple pen or pencil markings. Among the useful tokens are checkmarks on a point card, stars, smiling faces, conservation and trading stamps, counselor-made tokens, or play money. A point card that the child carries may be used to record points. (See Figures 3 and 4) As the camper accumulates points, they are marked on the card by his counselor or instructor. The camper presents the card for the exchange at the appropriate time.

4. Establish backup reinforcers. The token economy simply will not work if the tangible and activities rewards the campers are working for are not available. It is suggested that a camp store be established where the child may publicly exchange his token for a reward of his choice. The store can be stocked with many of the rewards presented previously, including certificates admitting the camper to activities. The store should be in a specific location and open at the appropriate time.
5. Develop a reward menu ( a list of rewards) and post it in the cabin, classroom, or dining hall. The campers should be permitted to thoroughly discuss the items on the menu. They are encouraged to make their selections from these items. They are not permitted to debate the cost of the various rewards after the cost has been established. Of course, the cost of rewards must be reasonable and attainable.
6. Implement the token economy. The counselor should introduce the token economy on a limited basis. A complex sophisticated system during the initial

- exposure may confuse and frustrate the campers. The counselors must explain the program with clarity and precision. He should be patient and respond to all questions.
7. Provide immediate reinforcement for acceptable performance. The campers will lose interest if the process for obtaining the token is more effort than the backup reward is desirable. Many token economies fail because the counselor neglects to dispense the tokens at the appropriate time.
  8. Gradually change from continuous to intermittent presentations of the tokens.
  9. Provide time to exchange tokens for backup rewards. Lunch and highly desirable activity periods should not be used for this exchange.
  10. Revise the menu of available backup reinforcers frequently. Children become bored with the same old rewards.

The properly managed token economy works very effectively at camp for two primary reasons: the camper is competing only with himself, and the reward menu provides sufficient variety to prevent satiation.

#### **METHODS FOR DECREASING BEHAVIOR**

Behavior modification practitioners have developed several interventions for decreasing the frequency of unacceptable or inappropriate behaviors. Applicable to both individual and group behavior in the camp, these techniques are (1) extinction, (2) time-out, (3) punishment, (4) reinforcement of incompatible behaviors, and (5) desensitization.

Figure 3  
Point Tally Form

Child \_\_\_\_\_ Date \_\_\_\_\_

Monday												
Tuesday												
Wednesday												
Thursday												
Friday												

TOTAL

Monday

Tuesday

Wednesday

Thursday

Friday

Week


Figure 4

## Point Card for Multipurpose Token Economy

Child \_\_\_\_\_ Day \_\_\_\_\_ Date \_\_\_\_\_

Work period	Readiness	Social behavior	Work effort	Work success	Teacher's Comments *
9:00-9:15			*	*	
9:15-10:00					
10:-10:30					
10:30-10:45			*	*	
10:45-11:30					
11:30-12:00					
12:00-1:00			*	*	
1:00-1:30					
1:30-2:45					
2:45-3:00			*	*	

\*Points for work effort and work success are not available during these periods due to the nature of the activity: opening exercises, recess, lunch, and closing exercises.

Walker and Shea (1980)

**EXTINCTION.** The discontinuation or withholding of the reinforcer of a target behavior that has previously reinforced that particular behavior is called extinction. Extinction is ignoring an inappropriate behavior.

To be effective, extinction must be applied consistently and the practitioner must persist.

**TIME-OUT.** Time-out is the removal of a camper from an apparently reinforcing setting to a presumed nonreinforcing setting for a specified and limited period of time.

The effectiveness of time-out is contingent on several factors; (1) the characteristics of the camper, (2) the consistency with which the intervention is applied, (3) the characteristics of time-out, (4) the camper's understanding of the rules of behavior and time-out, and (5) the duration of time-out.

The counselor must know the camper's characteristic reactions to time-out. For the acting-out, aggressive, group-oriented child, time-out may be an effective intervention. Such campers usually want to be with their group and involved in the activity program. For these children, time-out is not reinforcing. However, for the withdrawn, passive, solitary child time-out may be reinforcing. These children may be quite content in time-out.

If time-out is to be used as an intervention, it must be applied with consistency over a predetermined period of time. Frequently, counselors are inconsistent in the application of this technique; as a result, the camper becomes confused and the target behavior is unwittingly rewarded.

Care must be taken in the selection of a time-out area. Areas that appear to be nonreinforcing but in effect are very reinforcing to children should be avoided. Such areas include busy pathways, corridors, doorsteps, offices, and other high-traffic areas. The time-out area should offer minimal visual and aural stimulation. In camp, the time-out area may be an empty cabin, a little-used pathway, or a clearing in the woods. Frequently, it is adequate to have a child sit on the ground near the activity from which he or she was removed.

The camper must know the behaviors that are inappropriate and the consequences for exhibiting those behaviors. The rules of behavior should be verbally communicated and posted in the cabin or dining hall. These rules should be reviewed frequently and applied fairly.

Time-out loses its effectiveness if a child is required to remain in time-out for lengthy periods of time. Four or five minutes should be the maximum duration of time-out. Under extraordinary conditions, the period may be longer but should never exceed ten minutes. The camper must be directly supervised during the time-out.

For evaluative purposes, the counselor maintains a log with the following entries: (1) the time the camper begins time-out, (2) the time the camper ends time-out, (3) unusual incidents occurring during the time-out, (4) the activity taking place immediately before the behavior precipitating time-out, and (5) the activity immediately following the time-out period. (See Figure 5)

Figure 5

## Time-Out Log

Child \_\_\_\_\_

Supervisor \_\_\_\_\_

Date \_\_\_\_\_

Time		Behavior before time-out	Behavior during time-out	Behavior after time-out
Enters	Leaves			



Time-out does not include lecturing, reprimanding, or scolding the child before, during, or after the time-out period. All explanations are brief and concise.

**PUNISHMENT.** Punishment is the most misunderstood and emotionally explosive of the behavior modification techniques.

Punishment is imposed on a child to decrease or eliminate inappropriate behavior. In general, punishment is defined as the presentation of an aversive stimulus or the taking away of privileges or desired rewards or activities as a consequence of exhibiting a behavior.

Punishment can be either physical or psychological. The punisher may impose physical or psychological aversives to decrease behavior.

The short-term or immediate effectiveness of punishment is difficult to dispute. Punishment is without doubt effective.

Clarizio and Yelon (1967) offer several logical reasons for avoiding the use of punishment:

- It does not eliminate but merely suppresses the target behavior.
- It does not provide a model for the acceptable behavior to be exhibited by the child.
- Aggression by a punisher presents the child with an undesirable model.
- The emotional results of punishment may be fear, tension, stress, or withdrawal.
- The child's resulting frustrations may result in further deviation.

Punishment in the perception of the punished child is often associated with the punisher rather than the punished behavior. As a result, the child's reaction to punishment may be dislike and avoidance of the punisher. Counselors who are models of behavior for campers will not assume the role of punisher.

There are a variety of behavior management interventions that are more effective than punishment. Punishment is of little or no value in the outdoor education program. It is not recommended.

However, if punishment must be used, the punisher should adhere to the following guidelines:

1. Specify and communicate the punishable behavior to the camper by means of "rules of behavior." These rules are posted in a cabin or dining hall and discussed with the children.
2. Provide models of acceptable behavior that the camper can imitate.
3. Punish the child immediately after he or she exhibits the punishable behavior.
4. Do not apply punishment whimsically.
5. Apply punishment consistently.
6. Use punishment systematically and fairly (what is punishable for Peter is punishable for Paul).
7. Punishment should be imposed on the child impersonally. The counselor should not lose emotional control.

Personally, I am irrevocably opposed to the use of corporal punishment - whether it be paddling, slapping, spanking, or using a cattle prod or an electric wand by professionals or paraprofessionals.

I am also opposed to psychological punishments, which, at the least, erode the already fragile self-concept of the child. There are simply more humane ways to manage behavior.

**REINFORCEMENT OF INCOMPATIBLE BEHAVIORS.** At times it is necessary and desirable to decrease the frequency of a target behavior by systematically reinforcing a behavior that is in opposition to, or incompatible with, the target behavior. This is the process of reinforcing incompatible behaviors.

For instance, a counselor has two campers in a group who are constantly arguing with each other. After analysis of the situation, it is proposed that the behavior would probably decrease if one of the camper's beds were relocated on the opposite side of the cabin. By this means, the campers are separated, the opportunities for disagreement are reduced, and the behavior decreases.

The effectiveness of this technique is heavily dependent on the selection of the pairs of incompatible behaviors. For example:

1. A child cannot be seated and standing at the same time. Rather than attending to his standing (the target behavior), the counselor would reward sitting and ignore standing.
2. A child cannot talk and be silent at the same time. If the counselor wished to reduce talking using this intervention, he would reward silence and ignore talking.
3. A child cannot be on-task (attending to a project) and off-task at the same time. Using this technique, the counselor

would reward the camper's on-task behavior and ignore his off-task behavior.

This technique is applicable to a wide variety of behaviors exhibited by children in the camp setting. If applied with consistency over a predetermined period of time, it can be very effective.

**DESENSITIZATION.** Desensitization is the process of systematically attenuating a specific learned fear in an individual. This therapeutic technique was developed, in large part, by Wolpe in the 1950's and 1960's. The technique has been used successfully with individuals having phobias, fears, and anxieties related to public speaking, school attendance, participation in group settings, water, animals, flying, test taking and so on.

The process of systematic desensitization involves three phases or steps (Wolpe and Lazarus, 1966):

1. Training the subject in deep muscle relaxation.
2. Construction of an anxiety-evoking hierarchy of stimuli.
3. Counterposing relaxation and the anxiety-evoking stimuli.

These three phases are interdependent. Although the counselor should not attempt systematic desensitization on the basis of the information provided here, he can apply the underlying principles of this technique in the camp setting when confronted by fearful, anxious, and phobic children.

A potent intervention, desensitization may be applied by the counselor or instructor under the following conditions:

1. The practitioner must have a positive interpersonal relationship with the child. The phobic child must "trust" the counselor and feel free to express his or her fear in the presence of the counselor.
2. The counselor must construct an anxiety-evoking stimulus hierarchy (a hierarchy of stimuli on a continuum from the least to the most anxiety-evoking stimulus surrounding the specific fear).
3. The counselor must be willing and have adequate time to accompany the camper as he or she progresses through the hierarchy from the least to the most anxiety-evoking stimulus.

The practitioner must recognize that the desensitization process is time-consuming. He must be consistent and patient in the application of this technique. It is necessary to repeat some of the specific anxiety-evoking situations several times until their effect on the child is eliminated.

**EXAMPLE:** Kurt, an 8 year old camper, was afraid of water. Swimming lessons are a normal part of the activity program. Although swimming is not mandatory, it is encouraged. At the first suggestion of swimming or going to the pool, Kurt would have a temper tantrum of considerable magnitude.

It was the opinion of the staff that Kurt should overcome his fear. Systematic desensitization was selected as an appropriate intervention technique.

The following stimulus hierarchy was constructed and applied:

1. Swimming was announced to the group and discussed with Kurt's peers. Kurt did not attend swimming lessons but watched his peers get on the bus and depart for swimming. (This is a very happy and exciting time at camp.) This step was repeated twice.
2. Kurt rode on the bus to the pool and waited outside the building.
3. Kurt rode the bus to the pool and waited in the lobby outside the locker room.
4. Kurt entered the locker room, put on his trunks, and remained in the locker room during the lesson. This step was repeated twice.
5. Kurt in trunks, observed the lesson from the pool observation room.
6. Kurt observed the lesson from the poolside (approximately 10 feet from the water).
7. Kurt observed the lesson while standing at the edge of the pool. This step was repeated twice.
8. Kurt observed the lesson while sitting on the edge of the pool with his feet in the water.
9. Kurt stood in the pool with his hands on the edge of the pool. Repeated twice.

10. Kurt walked in the shallow end of the pool with his hand on the side of the pool.

Throughout the desensitization process, Kurt was accompanied by his counselor, who provided positive reinforcement. As a result of desensitization, Kurt began swimming lessons within 3 weeks. After 6 years, it was noted that the fear did not return. Kurt is an excellent swimmer.

### CONCLUSION

The effectiveness of the behavior management interventions reviewed varies with the child, counselor, behavior, and milieu involved.

Counselors are cautioned not to expect miracles - behavior does not change overnight. The art of managing behavior is difficult work. It requires patience, consistency, and persistence. The counselor must be alert to small changes in behavior and be rewarded by these if he or she is to successfully help children.

Successful counselors are committed to helping children. Persons unable to do so should not be employed. Their inadequate efforts may be harmful to the children.

The authentic counselor will "hurt" a little. He or she will become frustrated and discouraged when the work to which he or she is personally committed does not proceed exactly as planned.

According to Morse (1947) "Camp is too often looked at as a cure-all." Camps for exceptional children are not "cure-alls," but they can and do have a significant impact on the child's life when properly staffed and administered.

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## ADVENTURE EDUCATION WITH PEOPLE WHO ARE DISABLED

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**INTRODUCTION.** Today, there is an exciting movement that is gaining momentum at a remarkably fast pace throughout this country. The movement is known as Adventure Education, an alternative curriculum supplement to the overall school and camp program. Wood (1978) best explained the content of Adventure Education programs:

Adventure Education... typically covers three stages or areas: one, basic physical conditioning and skill training to be able to survive and travel in the wilderness environment; two, application of skills to expeditions into the wilderness and application of cooperative interpersonal relationships; three, depending upon the geographical location and conditions of a particular adventure program, major activities are canoeing, sailing, backpacking, and mountain climbing. Other problem-solving activities to test individual initiative are also characteristic of Adventure Education programs. Some of these activities may include a ropes course, individual and group obstacles such as the 12 foot wall, various climbing and balancing apparatus, as well as games and activities requiring group cooperation and effort. (pp. 18-19)

Recent reports and research publications have noted that such an alternative is quite feasible for a variety of educational and recreation settings

for both able-bodied and disabled populations. Adventure Education is an approach that appears to "work" with students, parents, teachers, and administrators learning together in a most stimulating environment.

**HISTORY.** The adventure movement's beginnings can be credited to the Outward Bound Organization. Outward Bound was developed by the late Kurt Haan, whose educational philosophy stressed the development of an individual's inner resources through physical as well as mental challenges. During World War II, Haan began his own school in Aberdovey, Wales, and designed a thirty-day course in survival training for young British sailors. Those sailors, in turn said they were "Outward Bound" - headed for challenge and adventure. Emerging from this wartime school have been numerous adventure programs throughout the world; Outward Bound itself has 34 schools in 17 countries, with six of those schools in the United States. Each year nearly 7,500 students between the ages of sixteen and sixty attend these American schools. According to the Outward Bound Annual Report (1979), a total of 69,114 people have attended U. S. programs since 1962.

One adventure program that had a significant impact on public school programming was that of Project Adventure in Hamilton, Massachusetts. This project began in 1971 with the assistance of an ESEA Title III grant. Primarily as a physical education alternative



for tenth grade students, the project's objectives included (1) the development of students' personal competence and confidence, (2) the development of group cohesiveness and the ability for a group to work together effectively, and (3) the development of an "increased aesthetic appreciation, emotional commitment, and intellectual understanding of the natural and human environments within which man operates" (p. 2). After a one-year evaluation period, the success of Project Adventure was most noticeable. The United States Office of Education Validation Team noted in their evaluation summary,

The impressive educative power of Project Adventure lies fundamentally in the depth, subtlety and sensitivity of its basic objectives and approach. The positive effect of this Project on the affective educational climate of Hamilton-Wenham Regional High School cannot be missed by any on-site observer. This Project is positive; it is necessary; it works... (p. 14)

Today, Project Adventure continues to thrive, not only in Massachusetts, but all across the country. Workshops are continually offered by the Project's staff and six national Project Adventure trainers.

**ADVENTURE PROGRAMMING WITH PEOPLE WHO ARE DISABLED.** In the view of many experts, adventure programs have favored "normal" students, with often little thought given concerning those individuals who are physically or mentally disabled. In fact, many people who are mentally retarded, mobility impaired or sensory impaired have literally been banned from adventure activities. Many excuses are given, including "she can't do that," or

"he might be hurt," or "it's too dangerous and they wouldn't like it anyway." Thoughts such as these only inhibit and repress human potential. In 1972 Robert Perske noted,

Many who work with the handicapped, impaired, disadvantaged, and aged tend to be overzealous in their attempts to 'protect,' 'comfort,' 'keep safe,' 'take care,' and 'watch.' Acting on these impulses, at the right time, can be benevolent, helpful, and developmental. But, if they are acted upon exclusively or excessively, without allowing for each client's individuality and growth potential, they will overprotect and emotionally smother the intended beneficiary. In fact, such overprotection endangers the client's human dignity and tends to keep him from experiencing the risk-taking of ordinary life which is necessary for normal human growth and development. (p. 24)

Fortunately, the last few years has seen the slow but steady emergence of adventure programs developed with the disabled person in mind. One of the first populations to be introduced to adventure programming were children with behavioral disorders. Shore (1977) outlined some programs and their research designs, while Erikson and Harris (1981) edited a book focusing on activities and program development. Preliminary indications note such students tend to enhance their self concept while becoming more accepted by peers and teachers.

Adventure programs for people who are mobility impaired are just beginning to gain national exposure. For example, the Minnesota Outward Bound School has developed a most successful course for students who are able-bodied, mobility impaired and sensory impaired. Currently lasting fourteen days, approximately nine students and two instructors in each "brigade" traverse miles of rivers and lakes in the beautiful Boundary Water Canoe Area (BWCA). There, students learn very quickly about individual and group potential, problem-solving and decision-making. There are typically dramatic insights of what can be accomplished in a wilderness setting with such a diversified group of individuals. Outcomes of such a program have been most positive during the six year history. Plourde (1979) described some of these outcomes in her study:

The personal outcome dimensions identified by participants after experiencing a wilderness adventure were those relative to behaviors, attitudes, knowledge, feelings, skills, the future, and the environment....Throughout the duration of this study, the able-bodied participants' responses appeared to show more personal growth and change in the areas of attitudes and feelings... (p. 4)

Other programs for individuals who are mobility impaired include Wilderness Inquiry II, also in Minnesota, Handicapped Unbound in Arizona, Breckenridge Outdoor Education Center in Colorado, and Project STAY in Vermont. For a complete listing of all programs and their addresses, the reader is encouraged to contact

the author or the Association of Experiential Education, Box 4625, Denver, Colorado 80204.

#### ADVENTURE PROGRAMMING WITH PEOPLE WHO ARE DISABLED - A DIFFERENT APPROACH.

There is no question that the heretofore mentioned programs are of high value in the educational process of individuals with disabilities. Yet, there is also the need to incorporate adventure education into school and camp programs so that students with disabilities are given the opportunity to have daily adventure experiences. For example, Roland (1980) explained how a class of trainable mentally retarded adolescents, who were based at a public elementary school, were given a sequence of adventure activities as an integral part of the curriculum. Each activity was utilized in order to (1) meet the physical needs of each student, (2) provide new and challenging activities, (3) allow students opportunities for decision-making, and (4) provide teachers and students opportunities to develop or enhance interpersonal relationships. In addition, the activities were ideal for both special students and fifth grade students to simultaneously take part in.

The sequence of activities typically begins with New Games. New Games encourage the participants to play in a noncompetitive fashion. With New Games, there are no losers - only winners. An example of a New Game, "Snake in the Grass" is described by Fluegelman (1977):

The starter snake lies down on the ground on his stomach. Everybody else gathers fearlessly around to touch him. When the Referee shouts "Snake-in-the-Grass!" everybody

runs, staying within the bounds of the snake area, and the snake, moving on his belly, tries to tag as many as he can. Those touched become snakes, too. Non-snakes run bravely around in the snake-infested area, trying to avoid being caught... the last person caught is the starter for the next game. (p. 93)

or sensory impaired the games are quite an adventure - and a fun adventure at that! As importantly, the games provide each and every student with a means in which to strengthen skills. And if administrators, teachers, and parents are to understand the value of all adventure activities, then links between the activities and students' objectives (written in Individual Education Plans) must be clearly shown.

The benefits of these games are numerous; for many students who are mentally retarded, mobility impaired,

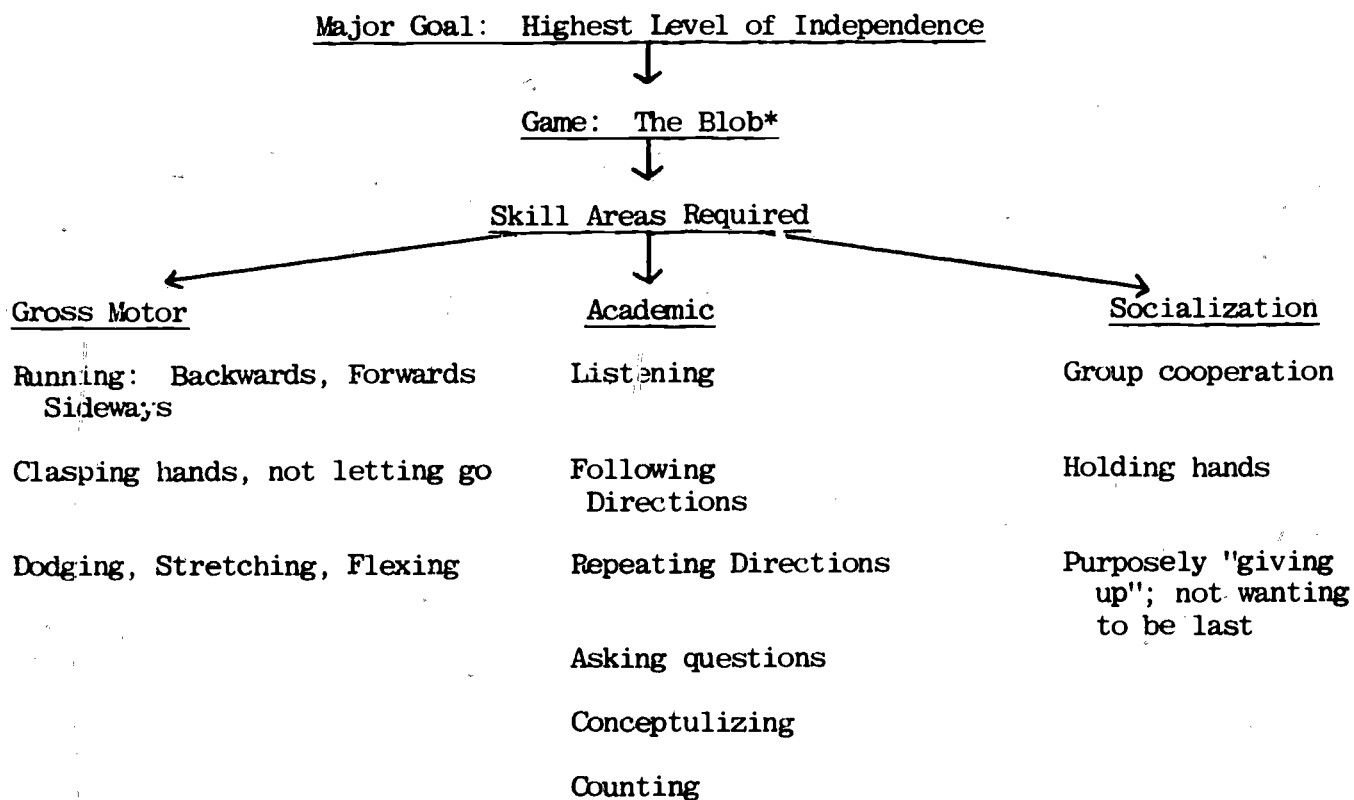


Figure 1. New Games Skill Chart

\*Game description: All players (there's no limit) spread out on any playing surface (the size will vary with the size of group). One person is chosen, or volunteers, to be "The Blob". That person, after counting to 25, will then attempt to tag someone, anyone. Once a person is tagged, he or she become a part of the Blob and must hold hands with the original Blob. The game can continue until all members are holding hands; if there is a large number of participants, then once the Blob contains four, "cellular division" occurs, with the group of four dividing into two groups of two.

As can be seen, such a simple game, if it is to be played correctly, actually requires three essential skills - skills that are often included in many special students' school programs. Thus, if a particular student has difficulty in cooperating with a group or following directions, then the game, "The Blob" can help to strengthen these weaknesses. Such a slight taste of adventure during the school day can certainly help motivate students and perhaps even help improve their overall school performance.

**INITIATIVE PROBLEMS.** The second step in the adventure sequence is what is referred to as initiative problems. Rohnke (1977) best explained these problems:

The outdoor initiative tests in particular give groups of students a series of clearly defined, physical problems. They are designed so that each group must attempt to work out its own solution.

This problem-oriented approach can be useful in developing each student's awareness of decision-making, leadership, and the obligations of each member within a group.

Participants work on the problem in groups in order to take advantage of the combined physical and mental strength of a team. These group problems can also be used to promote a student's sense of his own competence as an individual who can dare to become involved in a group. Finally, they serve to help break down some of the stereotypes which exist so comfortably in so many ... schools. (p. 65)

An example of an initiative problem is the "All Aboard." The objective is to see how many individuals can get on a firm two-foot by two-foot platform, approximately one foot above the ground, at one time. To do this correctly, each person must have both feet off the ground at one time and must maintain this position for a minimum of five seconds. Usually, a story precedes the problem that involves some science fiction mass of radioactive yogurt slowly approaching the group. The only way to survive is to get up on the platform for five seconds (the yogurt is fast moving). This type of activity can be done with most special populations, although certain adaptations are sometimes required. For example, if the problem "All Aboard" is to be used with a group that includes a student who uses a wheelchair, then the platform needs to be larger - usually a 5'x 5' piece of one inch plywood can easily be placed upon the existing 2'x 2' platform. The benefits of the initiatives, as in the New Games, are numerous:

- (1) Gross motor skills (stepping on and off the platform; stepping forwards and backwards)
- (2) Balance and coordination (trying to stay on platform)
- (3) Auditory skills (listening, following directions)
- (4) Socialization (group cooperation, communication, and trust)

The initiatives are also an excellent mainstreaming technique that helps all students work together and communicate a problem-solving strategy. "How many people can get on this thing, anyways?", "Who's got an idea?", and "I know, I know - let's try this!" are all common questions and statements that can be generated by the students. The initiatives

break down any attitudinal barriers very quickly, with the able-bodied students realizing - perhaps for the first time - that their peers with disabilities can communicate, make decisions, and accomplish tasks as well as anyone.

Initiative problems are applicable for all disabilities. Again, certain adaptations must be made in order for the particular initiative to be beneficial to the group. It is extremely important for the teacher to experiment and discover which initiatives are appropriate and what adaptations, major or minor, are needed. Examples of the standard, most common initiatives, as well as initiatives specifically designed for special populations are included at the end of the article. At this time, initiatives for groups that include individuals who use wheelchairs are being developed. The reader is strongly encouraged to submit to the author specific ideas that will help strengthen this critical adventure area.

**A BRIEF LOOK AT ROPES COURSES.** A third, and quite optional, sequence of the adventure program is what is commonly referred to as a "ropes course." Such a course involves a series of obstacles, constructed from rope and wire, that requires the participant to test his or her balance, strength, and willingness to what appears as a risk. Although at first glance a ropes course may appear to be dangerous, it is actually the very opposite. Kylloe (1981) noted that ropes courses are by far safer than many accepted activities. For example, at the high school level, injuries resulting from playing the All-American sport of football are astonishing. Edwards and Rackages (1976) noted,

In 1976, at the nation's 22,000 high schools, 1,400,000 athletes were expected to suffer 1,200,000 football injuries. At least 10 would die from head, neck, and internal injuries and there would be at least a score of paraplegics by the end of the season. (p. 222)

In contrast, concerning adventure programming especially ropes courses, Kylloe (1981) noted that 4,000 participants received 104,000 days of intense programming with only a few minor injuries. This author, after nearly six years of conducting a wide range of adventure programs, has observed a sprained ankle as the most severe injury sustained.

Although ropes courses can be as high as 50 feet or 60 feet above the ground, it is preferable that an adventure program begin with a 'low ropes course' that is no higher than five feet. Such a course is obviously less expensive to build, but, most importantly, there is greater chance for administrative approval. The low ropes course is less threatening, and can be simply described as a modified obstacle course where all students will be completely supervised. Once teachers, administrators, and parents understand the value of the low ropes course, then there can be discussion concerning a high ropes course. However, with many individuals who are disabled, the author sincerely believes that such a course is not absolutely necessary. Many factors are involved in the planning and implementation of a high course, including staff training, cost of the course, and the safety of the course. A low ropes course can be built in one or two days and staff trained in one day. The end result of such a course is twofold: (1) students quickly realize that they can do some things



that at first appears to be too difficult, and (2) the student's parents and the student's peers also realize that he or she can do some activities that were once thought impossible. Examples of different 'elements' that can be included in a course, are included at the end of this article.

**DEBRIEFING.** A crucial procedure that is highly recommended following each of the above sequential adventure activities is conducting a debriefing session. Debriefing is a method in which the group discusses what happened during the activity and the activities' impact on the students. Or, as Schemp noted,

This process...is intended to allow the participant to verbalize his behaviors, reactions, and feelings, thereby reinforcing and realizing those experiences... Such a process may be considered a form of reinforcement, and so it is; but it is an internal, self-directed, reflected form of reinforcement as opposed to the more traditional form of external reinforcement given by the teacher.  
(p. 4)

During a summer camping program for developmentally disabled adolescents and adults, Frant, Roland, and Schemp (1981) outlined the debriefing process:

1. Immediately after an activity, have the group sit down forming a circle...The instructor should be in a position so everyone will be able to see.

2. Ask the group to identify what they just did.
3. Ask each individual if they enjoyed the activity, and if not, why?
4. Ask if the activity was easy, difficult, scary, etc.
5. Ask the group what person or persons came up with some ideas on how to solve the problem.
6. Ask if there was support - who helped?
7. Try to bring out each student's feelings about their performance and others' performances. Be sure to accept the students' feelings and ideas, an important teaching tool that is sometimes forgotten.
8. Help the students summarize the activity. (p. 7)

This process will strengthen the specific adventure program and the overall school and camp program. By emphasizing debriefing, and its relationship to students goals, e.g. expressive and receptive language skills, then the chance for such a program to be accepted by other teachers, parents, and administrators will be greatly enhanced.

Adventure programming with students who are disabled seems to have a very bright future. However, teachers and camp personnel who have the desire to include the adventure components in their program must begin slowly. The infusion of New Games and then the initiative problems into the curriculum should be the first two steps taken. While this process is beginning, workshops should be given, allowing teachers, parents, and administrators the opportunity to experience adventure activities first-hand. It is often at this point that these individuals will exclaim, "Ah-Ha! Now I understand!"



From then on, adventure programming can continue to expand, giving students - all students - a most innovative way in which to learn.

### STANDARD GROUP INITIATIVES.

1. In SARDINES, the group starts off by holding hands and forming a semicircle. One end of the semicircle then begins to run around the other end - all the time holding hands. Eventually, this spiral becomes tighter and tighter until everyone is in a tight bundle. Next, each person puts on a blindfold (optional) - the instructor, meanwhile, is tying a rope around the group. When the group is ready, the teacher shouts, "Follow my voice!" The group must walk together while listening to the commands.

2. The JAWSMOBILE comprises two lengths of a four-by-four, fourteen feet in length, in which there are inset pieces of rope with loops for handles. Each rope is approximately three feet long, with a minimum of six sets of ropes, set approximately two feet apart. The objective is to go across an area about thirty feet in length that is "infested by sharks." The idea is for a group of people to move across the area in unison on the Jawsmobile with one foot on one plank and one foot on the other while holding onto the handles.

3. In the NITRO GLYCERIN CROSSING, a simulated ravine is created by placing two small logs approximately ten feet apart. Above these two logs, in the center of the 'ravine', is a rope, hanging from a branch about twenty feet high. With the entire group standing behind one of the logs, they must: (1) secure the rope, (2) get everyone over the 'ravine' by means of the rope, and

(3) also get a can of water (the nitro) over to the other side.

4. The ELECTRIC FENCE consists of a rope, three to four feet high, strung around two or three trees, forming a triangle. The group is placed in the center of this triangle. They must determine how to get everyone over the rope. The rope, the area below the rope, and the trees, are supposedly electrified and can not be touched by anyone in the group. The only piece of equipment that can be used is a seven foot plank.

### INITIATIVES FOR DEVELOPMENTALLY DISABLED POPULATIONS

1. ROCK CLIMB: The challenge is to have every group member reach the top of or get up on to a boulder.
2. TRAIL BARRIERS: The challenge is to move around/over/through barriers placed on a trail. Barriers could include: a brush pile, a fallen tree, a puddle.
3. JUNGLE CO-OP MEAL: Components of a meal or snack are hidden in various areas. The group is divided to search for the various objects (e.g., breakfast; a) cereal, b) eggs, c) silverware and utensils, d) milk and juice). Emphasis is placed upon the importance of each group's accomplishment of their task toward the success of the meal/snack.
4. HOW CAN WE GET THERE: In a mixed disability group, participants decide how they can best help each other move to a location/clean-up campsite, accomplish a task.
5. INJURED BRAVE: One of your hunting party is injured and must be returned as quickly as possible to the campsite. The challenge is to assist

- in making a "traverse" (use cord and branches) and completely pull the injured brave back to camp.
6. **CREEK-CROSS:** The challenge is to utilize natural objects (e.g., branches, rocks) to form a bridge across a small stream.
  7. **HILL ROLL:** The challenge is for the entire group to remain in contact with one another while rolling down a hill.
  8. **BEE STING:** The group circles around a parachute holding it at waist level. The challenge is to keep the bees (a variety of balls tossed onto the chute) from settling long enough to sting (e.g., count of 3, count of 5). Techniques include raising and lowering chute, continuous shaking.
  9. **TOTAL SILENCE:** A hunter is passing only a few yards away. The group (deer) must be completely silent and freeze until the hunter passes by.
  10. **THE KING'S REWARD:** The king has offered a thousand gold coins to the group which can encircle the greatest number of trees. Begin with one and see how many you can enclose. To count, a tree must be taller than the tallest member of your group.
  11. **MOTHER NATURE'S REVENGE:** The challenge is to completely rid a picnic or other outdoor area of litter/debris for an inspection visit by Mother Nature, who's promised a 6-week delay of Spring if not completely satisfied.
  12. **EXPLOSIVES I:** The explosive, (a plastic ring) must be transferred from group member to group member by means of straws held in the mouth. If it fails, BOOM, the party's over.
  13. **EXPLOSIVES II:** The explosive, which is very hot and cannot be held for long, is a cane which is held in an upright position by one student, surrounded by the other students who are seated in a circle. When the explosive gets too hot to handle (10-15 seconds) for the holder he releases it. The group must keep it from making contact with the floor. The catcher becomes the new holder.
  14. **EXPLOSIVES III:** The explosives are spools attached to strings. They are gathered in circle center with each group member holding the string to one of them. The challenge is to keep the explosive from the firing mechanism ( a garbage can lid) when it is dropped or lowered toward the explosives.
  15. **'HOOLA HOOPER':** The group stands in line side by side holding hands. The person on one end, with his/her free hand, starts a hoola hoop over his arm, up over his head, and has to get the hoop to the person next to him without releasing hands. (The person has to get his body through.) The hoop has to go along the line of people until it gets to the other end.
  16. **GUARD THE TREASURE:** The group pairs up into twos. Each pair stands back to back. The treasure is placed between their backs. (Treasure is a ball or pillow.) Each pair has to get over a fallen tree and finally over a distance of twenty feet.

17. **PANCAKE ROLL:** Group lies down next to each other (as close as possible) facing the ground, forming a line. Person on one end begins to roll and rolls over entire group, finally reaching the other end. Next person in line goes until all have gone.
18. **HUGGING:** Group lines up in a straight line, facing forward. Each person puts a balloon under their clothes (on stomach). The person in front turns around and hugs person behind them, breaking one or both balloons. Next person turns around and so on down the line.
19. **THE BOMB:** The bomb, a balloon, is thrown up among the group. The group has to keep the balloon up (not catching it) for as long as possible.
20. **HELP YOUR NEIGHBOR:** The group is divided into 4-6 person teams. Each team's task is to, reaching and talking prohibited, assist each other in completion of 3-piece puzzle squares. (Note: no one should have all the pieces they need when the task begins.)
21. **ROLL:** A group stands in a tight circle, with a volunteer at the center of the circle. The volunteer is rolled around the inside of the circle. He may be thrown from side to side. He must keep his feet together and eyes closed.
22. **VIBRATIONS:** Group lies on their backs, on the floor. Each person has his/her head on another's stomach. One person starts talking. As soon as the person hears or feels his "connection" (person whose stomach his head is on) talking, he starts talking until the whole group is talking.
23. **FIND YOUR PARTNER:** Group pairs up. Each pair puts a small amount of the same cologne on. Each pair would have a separate cologne. Then the group is mixed up, eyes are closed. Object is to "sniff" out your partner.
24. **CAN WE REACH IT?:** Groups pick out an object (tree, bush, etc.). Making a chain along the ground, the group tries to reach object. As long as you are touching a person, your chain is still intact.
25. **SPOON ON A STRING:** Group threads string, with spoon attached to one end, through clothing, alternating up and down, until entire group is attached by string. Spoon must be threaded underneath clothing, entire group helps.
26. **PUNCTURED DRUMS:** (Project Adventure) Group fills a small oil drum that has been punctured several times, to overflowing, using your fingers to plug up the hole.
27. **"HUMAN MACHINES":** Group decides to imitate a type of machine, each person is a different part of the machine. Other members of the group must guess what the machine is supposed to be.
28. **LAP SIT:** Entire group must sit on each others' lap in a circle.

29. **PYRAMID:** Assemble ten people into a pyramid form, either hands or knees, or lying down, or standing up, in a 4-3-2-1 sequence. (Project Adventure)
30. **KICK THE STICK:** Assemble group in a line (using wide open area) approximately five feet apart. First person kicks a stick to the second person and on until the stick reaches the opposite end of the line. (Divide by teams or time the event.)
31. **THE LIFESAVER:** Assemble into two groups, in two lines. Object is to pass the lifesaver down to the end of the line to save the last person, who is drowning. Candy lifesaver is passed along the line by straws held in person's mouth. No one can touch the lifesaver with their hands.
32. **BUCKET BRIGADE:** Object is to fill a container, using several smaller containers, by passing smaller containers from source of water to large container and back. Variation: put out campfire using a bucket brigade.
33. **BUSY AS BEAVERS:** The challenge is to dam up a small stream using only natural materials.
34. **THE FORT:** The challenge is to gather enough stones and to construct a fire pit at a campsite.
35. **SPACEWALK:** The challenge is for the entire group to remain in contact with the life-line (a length of rope) during a hike.

36. **CO-OP CINQUEIN:** The challenge is for the folks to utilize everyone's best thoughts to create a cinquein about natural objects. All ideas for lines are considered and the group votes for the line they want to use.

#### SAMPLE LOW ROPES COURSE ELEMENTS\*

1. The **TWO LINE BRIDGE** or **THE POSTMAN'S WALK** is a cable which is suspended between two trees sixty feet apart. Four to five feet above this cable is another cable which the participant holds. He or she then moves sideways by sliding the hands on the top cable and moving the feet on the lower cable. The person proceeds until reaching the other end.
2. The **BURMA BRIDGE** is a rope bridge made of polypropylene rope. Approximately at shoulder height, there are two ropes in which to hold. In between these ropes, about four feet lower, is one large rope on which to walk. Small pieces of rope are tied between each 'hand' rope and the 'foot' rope. The person then walks on the bridge until reaching the other side.
3. The **SWINGING TIRES** are simply five or six tires that are strung about four feet above the ground. Tires are about four feet apart. The person attempts to transfer from one tire to another without touching the ground.

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\*These elements should be built by experienced ropes course builders. Contact the author for additional information.

4. The KITTEN CRAWL allows each person to try to cross a 'bridge' made out of two or three ropes, three feet apart. Most people elect the prone position while crossing.
5. BALANCE BEAMS are usually made out of trees (6-12" in diameter) or 2x4's. Beams can go from the ground to a two line bridge, for example, or can be horizontal for a length of about thirty feet.

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## BRINGING PEOPLE TOGETHER IN THE WILDERNESS

### PAUL SCHURKE AND GREG LAIS WILDERNESS INQUIRY II

Since 1977, Wilderness Inquiry II (WI II) has been bringing disabled and nondisabled persons together in Minnesota's northern wilderness. Differing widely in abilities, backgrounds, and ages, but sharing a desire to visit the wilderness, some 225 persons have traveled the Boundary Waters Canoe Area Wilderness (BWCA) on 27 canoe trips arranged by WI II during the past five summers.

Designed for the increasing number of disabled persons seeking rigorous outdoor recreation opportunities, the format of the trips--which involves persons with a variety of disabilities as well as nondisabled persons--has also proven to be an effective means for helping people gain more positive attitudes about disabilities.

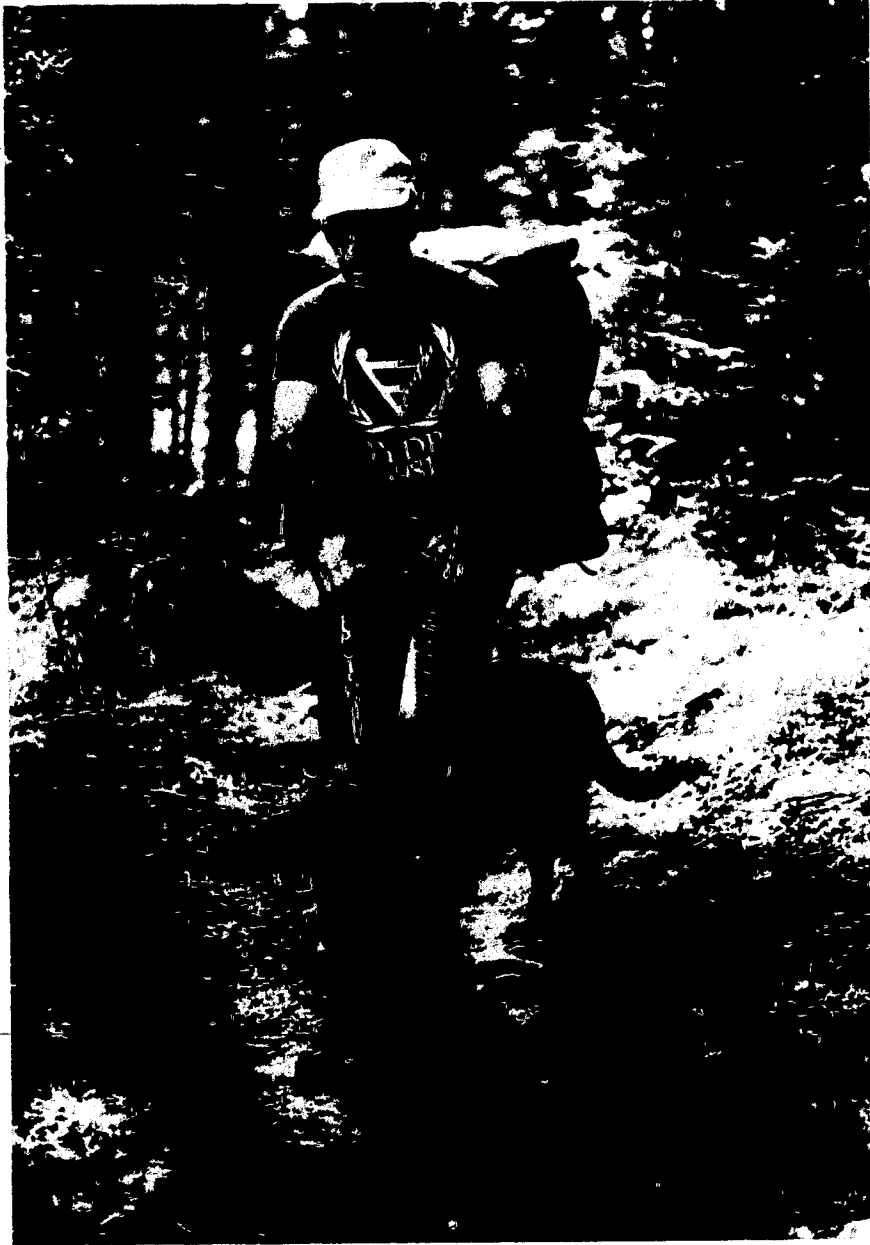
Slightly over half of the participants have visual, hearing, or mobility impairments, or are multiply handicapped. Application and orientation procedures are the same for all participants. No distinctions are made for nondisabled participants. Throughout the trips, the abilities of each participant are called upon by the many and varied tasks of wilderness camping. The goal of each trip is to find ways in which persons can participate fully in the process of the trip.

Wilderness Inquiry II was founded on the belief that a wilderness experience can benefit all persons by providing gains in self-confidence and self-knowledge, in addition to outdoor skills. The non-profit program provides trained leadership, proper gear, and transportation

to the wilderness from Minneapolis. Its staff solicit donations and grants to cover about two-thirds of the program costs. Consequently, there is no set fee for the trips; participants are asked to only contribute what they can towards their share of the program costs. Last year, the average participant contribution was \$70.

The trip routes and activities are not unlike those any other group of wilderness travelers would experience. Wilderness Inquiry II groups canoe dozens of miles, cross many portages, and take time for swimming, fishing, music, hiking and hill climbing. Most trips are seven days long, though longer ones have been conducted. No base camps are used and the staff utilize minimum-impact camping techniques and encourage development of a sense of aesthetic appreciation and environmental responsibility in each participant. Discussion topics on the trips often center on the history of the wilderness, ecological relationship within it, and prospects for its future.

Any adult is eligible to apply for the program, though participants are screened according to certain health needs that cannot be provided for in the wilderness. Participants for each group of ten (including two leaders) are selected so that there is an equal number of disabled and nondisabled persons and that a variety of disabilities are represented. No camping skills are required--only the willingness to try new experiences.



The portages are one of the most challenging aspects of Wilderness Inquiry II trips. Some are quite long, though most are sufficiently well-marked that they can be followed by blind persons with guide dogs or canes. With some assistance, persons using wheelchairs can negotiate many of them.

The diversity of people on each group is an important element of the program. Participants find themselves traveling with persons far outside of their peer groups-- people of many walks of life, of various ages, and of widely differing backgrounds. A given trip might include a disabled student, a blind businessman, a grandmother, persons living in the city, on farms, and in institutional settings, a disabled veteran, a deaf teacher--all sharing an experience that helps create bonds among them.

Experience suggests that when nondisabled persons interact closely with disabled persons, they develop more positive attitudes towards persons with disabilities. Generally, the nondisabled participants on WI II trips have had little prior exposure to disabled persons and, like many people, have attitudes that involve pity more than understanding. In the cooperative context of a wilderness trip, the nondisabled participants come to see those with disabilities as unique individuals with talents and abilities. In some cases, this process is reciprocal: a disabled person may learn that not all nondisabled people look upon them with patronizing or condescending attitudes. Conducted against the backdrop of a wilderness indifferent to its human visitors, the trips underscore the fact that our common human needs far outweigh our physical differences.

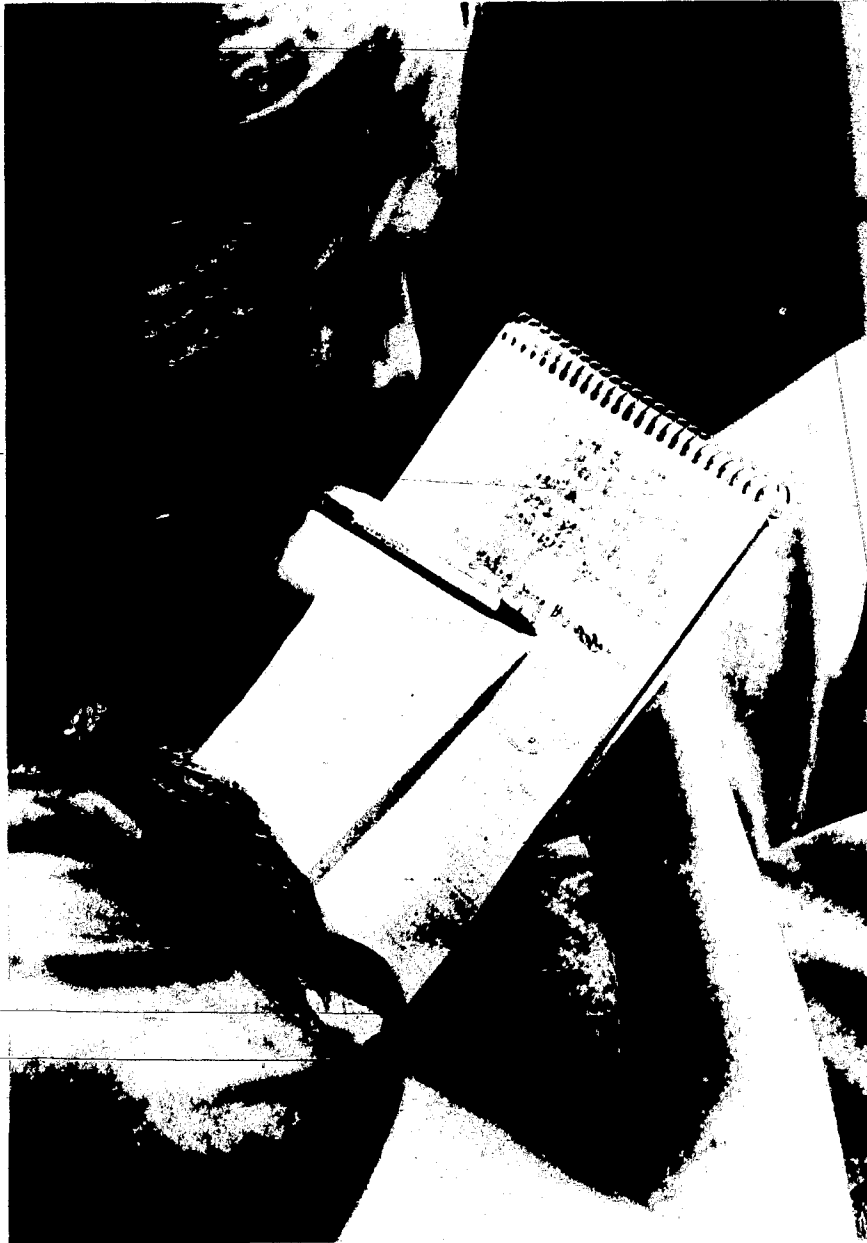
### THE PARTICIPANTS

Any adult (18 years and older) is eligible to apply for a WI II trip. Applicants complete a form that includes questions about their

physical and mental health, and (if applicable) the nature of their disability. Applicants are then interviewed by staff members. If questions persist about an applicant's physical or mental stability, his or her parents, doctor and/or rehabilitation therapist are consulted. Participants have included persons with paraplegia, quadriplegia, blindness or other visual impairments, deafness or hearing impairments, cerebral palsy, spina bifida, hemiplegia, multiple sclerosis, ataxia, muscular dystrophy, Huntington's disease, epilepsy, diabetes, dwarfism, and paralysis resulting from strokes.

The program's directors have chosen not to establish any concrete standards against which an applicant's suitability for a trip is judged. But they recognize that certain health conditions may jeopardize a person's safe participation and, consequently, eliminate them from consideration. For example, this would include persons who would need to be carried on portages and have a weight problem that would make this difficult and unsafe, persons with epilepsy who are experiencing frequent grand mal seizures, and persons with diabetes who are experiencing kidney problems.

Among the disabled participants on each trip, the staff seek to include one or two persons who use wheelchairs, one or two persons with mobility impairments who do not use wheelchairs, and one or two persons who have visual or hearing impairments. They also seek to ensure that for each trip, the physical assistance that may be required by some of the disabled participants is balanced by the abilities of the nondisabled participants. In addition, the staff attempt to achieve an equal mix of women and men.



"Quick trip up from the city...on the first night the northern lights were out of sight," reads the opening lines in the trip journal of this Wilderness Inquiry II participant. These wilderness canoe trips are generally one week long and include five disabled and five nondisabled persons.

## THE PLACE

A land of lakes and rivers linked by trails, the BWCA accommodates disabled travelers more easily than many wilderness areas. The dominant mode of travel--canoeing--is an activity in which persons with most disabilities can successfully participate.

Over one million acres in size, the BWCA is the largest national forest wilderness area east of the Rocky Mountains and the third largest in the U. S. wilderness system. It is the nation's only lakeland canoe wilderness--a network of more than 1,000 lakes linked by hundreds of miles of streams and portages that served as the highways for French, English, Canadian and American fur traders who followed water routes pioneered by Sioux and Ojibway Indians. This last remnant of the northwoods is remarkable for its lakes and Virgin forests, and for its wildlife, which includes the moose, deer, black bear, beaver, eastern timber wolf, lynx, osprey, and bald eagle.

Managed by the U. S. Forest Service, the only changes made to the area in modern times have been the establishment of campsites. Generally located on bald rock outcroppings along lake shores, they include a fireplace grate, cleared tent sites, and, back in the woods, a box toilet. The portage trails, which vary from several feet to over a mile in length, are dirt or rock paths. Some are very hilly or muddy, though steps or boardwalks have been provided in some of the rougher spots. Some of the campsites and portages can be maneuvered across by a person in a wheelchair with assistance.

## THE TRIPS

After applicants are selected for a trip, they are provided with a detailed equipment list, optional reading list, and suggestions for other trip preparations, i.e., exercise and becoming accustomed to using sleeping bags.

On the day of departure, the participants gather at a central point in Minneapolis and ride to the BWCA together in a van: leased by the program. Canoeing and water safety skills are exercised at the boat landing in the wilderness.

Activities for the trip vary from day to day, depending on the weather, the ambitions of the group, and points of interest along the routes. The routes, all circular ones, involve about 4-5 hours of canoeing and portaging on most days. Camp is usually set early each evening to provide time for individual and group activities. A lay-over day is included on each trip. Depending on the group's decision, it may be used for a special project such as hiking or hill climbing or simply for rest and leisure activities.

Wilderness Inquiry II provides all food and camping gear for the trips. For each group of ten, WI II utilizes four 17-ft canoes, three 4-persons tents (including one umbrella tent that can accommodate persons using wheelchairs), eight canvas portage packs, paddles of various lengths and styles, vest-and collar-type jackets and assorted cooking gear.

Certain "tools" are employed to increase the opportunities for disabled participants to be a part of the various trip activities. For example,

an 18 inch by 36 inch sheet of plywood sometimes serves as a canoe seat backrest (to help persons with balance problems gain the leverage needed to use a paddle) and doubles as a table (to allow persons with wheelchairs

to help with various camp activities). Other simple forms of adaptive equipment include Velcro gloves that help secure a person's grip on a canoe paddle and foam pads that serve as seat and side supports in the canoes and at the campsites.



Flotation pads serve as backrests and seats for persons whose balance problems would make it unsafe for them to sit on the canoe seat. From the floor position, even persons with very limited upper body strength can wield a canoe paddle.



A less obvious "tool" is the many fresh vegetables incorporated into the menu. Not only does their flavor enhance outdoor meals, but the many tasks involved in their preparation ensures that all participants can contribute to food preparation.

The staff has found that, on the whole, few special arrangement need to be made for travel by disabled persons in the BWCA. A standard 17-ft canoe, for example, can safely accomodate two wheelchairs when they are folded and laid flat in the bottom of the gear compartments. When portages are reached, persons with mobility impairments can often wheel (sometimes without assistance) across portions of the trail. If the going gets tough, they can be safely carried "piggy back" style across the remainder. Many portage trails are sufficiently well-established that blind persons can often cross them without assistance.

One item of adaptive equipment that has been put into use recently is a "people pack." (See photos on next page) A fishnet nylon vest with an adjustable canvas seat attached to the back, the pack has proven to be a more comfortable and safe method for carrying a person over long portages than the piggy-back method. It also makes it more possible for persons with mobility impairments to participate in special trip activities such as nature hikes or hill climbs. Under most circumstances, the carrier can load and unload the rider without assistance. When worn over a vest life jacket, the pack is comfortable for the carrier and, unlike piggy-backing allows that person's hand to be free.

## PROGRAM BACKGROUND

Wilderness Inquiry II is informally affiliated with the Wilderness Inquiry Association, a circle of friends who conduct wilderness trips for a variety of groups. Known as WI I, III, IV, and V, the other WIA programs involve, respectively, trips with learning disabled high school students, youth in the Big Brother program, persons with juvenile court offenses, and persons who are mentally retarded. The programs are separately staffed and funded.

Wilderness Inquiry II was begun by two college friends, Paul Schurke and Greg Lais. Both had extensive prior wilderness leadership experience and wanted to open up wilderness camping opportunities to a broader range of people. After a pilot trip in August 1977, seed money for the program was received from a Minnesota foundation in 1978.

Paul and Greg continue to administer the program on a part-time basis and have trained six other trip leaders who are hired for specific trips each summer. Budget and policies are overseen by a eight-member Board of Directors that meets quarterly and a five-member Executive Committee that meets bi-monthly.

## SPECIAL PROJECTS

While maintaining a strong base program, the staff and board have chosen to undertake a number of related projects. Some of these are reviewed below.

PROGRAM EVALUATION. The response from participants, based on post-trip questionnaires, has been overwhelmingly positive. Many have referred to the trips as one of the best experiences of their lives. Increased self-confidence,



(Illustrations A & B) Slip knots are used to tie the front of the vest so that it can be quickly removed for unloading the rider.



Adapted by Wilderness Inquiry II from a U. S. Army design, the "people pack" allows persons with mobility impairments to be carried safely and comfortably over long distances. A life jacket is worn under the pack for the carrier's comfort. The "pack" is a fishnet nylon vest with an adjustable canvas seat stitched to the back of it. The leg straps clip to the front of the vest. Their length can be adjusted easily by pulling on the free end of straps. The use of wide straps helps avoid constricting circulation in the riders legs.



The top of the seat detaches from the vest for loading and unloading. A drawstring on the seat and the various clip rings on the vest allow the seat to be adjusted for the comfort of each rider.

increased open-mindedness about disabilities, and greater appreciation of wilderness are the effects most often cited. To document the program effects, a research grant was solicited and received from the U. S. Department of Education's Fund for the improvement of Post-Secondary Education. The study, conducted during the summer of 1981, includes two phases. The first is a case study of six 1980 participants and is based on personal interviews with them regarding their expectations of the trip, their experiences on the trip, and long-term effects. The second phase involves the completion of pre-trip, post-trip, and six-month follow-up questionnaires by the 1981 participants. Results of both phases of the study will be published in 1982.

**COMMUNITY OUTREACH.** With the diversity of the participants on each trip being a key element of the program, the staff continually seek to draw participants from a wider population base. Program literature is sent nationwide to interested parties. Staff members give slide and tape presentations of the program to community groups throughout the Midwest. Contacts have been established with major organizations representing the various disability groups in the region.

The deaf community has been one of the most difficult to reach. Because of the language barrier, prospective deaf applicants have expressed hesitation about being a part of an integrated program. To ease that concern, staff members have gained sign language skills and a trip leader who is deaf has been hired. The trip led by that person in 1981 included five persons (some with physical disabilities) and five hearing

impaired persons (also including some with physical disabilities). All communication during the trip was done in both signed and spoken language. This added dimension to the trip was very well received by all participants.

Another "group" reached by the staff during the 1981 trips is the probation program of Washington County Court. Trips with youth from the probation program have been conducted for several years by Wilderness Inquiry IV. These efforts met with varying degrees of success though discipline problems were encountered on most trips. It was felt that if these teenagers participated in a wilderness trip outside of their peer group, they would gain more from it. Towards this end, several youth on probation were recruited as nondisabled participants for some of the 1981 WI II trips. No problems were encountered on these trips. The youth mixed well with the other participants and spoke very highly of the experience afterwards.

**WINTER PROGRAM.** Now in its second year, WI II's winter program primarily involves wilderness dog sled trips. Conducted with Lynx Track out of a base camp owned by that winter recreation program, the trips run three to five days and include up to 15 disabled and nondisabled persons. The focus of the trips involves exploring ways in which everyone in the group can stay warm and comfortable and become mobile in the winter woods. The first day is spent in orientation at the base camp. On other days the group travels to various destinations in the wilderness nearby and, depending on the weather, sleeps in wigwams, teepees, tents, or snow caves. Various modes of winter transportation are available for the participants to try, including

dog sleds, cross-country skis, snowshoes, and pulks (a fiberglass shell shaped like a mini-boggan).

For providing access to the wilderness, dog sleds have proven to be the winter counterpart to the canoe. Persons with some upper body strength can control the dogs and sled and generally travel where they please on the wilderness trails without assistance. Persons with more severe disabilities can sit in the sleds while the rider stands behind and assists. It was also found that dogs can be hooked directly to pulks (with a safety release) for short runs. On longer runs, pulks can be placed in the sleds so that when the destination is reached, the rider, who is strapped in the pulk, can slide off the back of the sled and maneuver around the area with ski poles.

Making certain that everyone remains warm and comfortable is the key to a successful winter trip. Persons sitting in the pulks or dog sleds use down sleeping bags to prevent their lower extremities from becoming chilled. In addition, heat sources such as warm bricks wrapped in towels or pocket-size catalytic heaters are often placed in the sleeping bags. At regular intervals, all participants check their extremities for signs of chilling. Indications of core temperature drop in persons with paralysis are also closely watched for. Some conditions warrant special attention. For instance, persons with a prosthesis may find that the metal will readily conduct the cold to their skin. In such cases, a pad providing a thermal break between the prosthesis and the skin may be useful.

**THE FUTURE.** As with any non-profit program, one of WI II's goals is to put itself out of business. It is hoped that eventually the number and variety of outdoor recreation programs available for persons with disabilities will make special programs unnecessary. It is also hoped that the integration of disabled and nondisabled participants will become a regular part of other existing recreation programs.

Working jointly with other programs on various trips and drawing participants from an ever wider population base are means towards reaching this goal that will be pursued by WI II staff in the future. In 1981, the staff worked with a Canadian recreation group and the Minnesota Lung Association in helping them arrange integrated trips. Similar efforts are planned for 1982. For instance, WI II is working with the U. S. Forest Service in finding ways to make wilderness camping opportunities available to more disabled persons. In addition, the staff is considering including disabled young adults from a high school program on the 1982 trips. They are also looking at opportunities for integrated programs in other recreation areas. Some of them are working with a sailing program on the Great Lakes that has begun offering integrated trips.

Wilderness Inquiry II's goals are well expressed in this quote from the post-trip questionnaire of one participant:

"The trip showed me that we all have some real or imagined difficulties. We know they limit us, but we don't let them dominate us. I now see that it's no different for persons with disabilities. They know they have functional limits but they can function quite well within those limits and in some cases can overcome them."



## KAYAKING WITH PERSONS WHO HAVE A MOBILITY IMPAIRMENT

JOHN H. GALLAND  
VINLAND NATIONAL CENTER

**INTRODUCTION.** Kayaking is an invigorating sport. The pleasures of kayaking are old, however much is changing including boat design and paddling techniques. For those whom the sport of kayaking has been traditionally unavailable these changes are allowing new participation opportunities.

The Vinland National Center offers a new dynamic approach toward improving the quality of life of disabled persons by offering programs emphasizing healthsports and other related health activities. Based on the philosophy that the individual is the key to improving their own physical, mental and social health, Vinland's overall goal is to aid each person in developing the necessary skills and expertise for the realization of their health potential.

The benefits of kayaking for persons with a mobility impairment range from improved balance and trunk stability, to the independence found from paddling. While the majority of kayaking equipment and techniques transfer easily for a disabled person, there are some preliminary considerations that need to be made.

The kayak was developed over the centuries by the Eskimo as a functional sea hunter's boat. This was one of the many different types of crafts that the native Americans were using when the Europeans arrived. Different than the canoes of the lower latitudes, the Eskimo skin boats came in different lengths with differing maneuvering characteristics. Whether it was a single kayak or a multi-person kayak, this type of boat was very well suited for mobility in ice strewn waters. Since the

native boats were lashed and sewn together, this gave them an incredible flexibility and consequent resiliency.

The cockpit of a standard kayak presents a tight squeeze especially for those with little or no control of lower extremities. The benefits of enlarging the cockpit will become very evident after a wet exit and presuming the knees still have retained all their skin. Abrasions, cuts and bruises to the legs and torso must be avoided when teaching kayaking to paraplegics and quadriplegics. Specific modifications include lengthening the front of the cockpit and keeping it wide as well.

It is possible to modify an existing kayak. By taking a coping saw, the cockpit may be cut longer and wider. However, this creates a problem in reattaching the existing coaming, or in making new coaming. A simple solution to molding new coaming is to use some modeling clay for a form around which fiberglassing can be applied. Also, new kayaks are now available that already have wider or double sized cockpits.

Once the cockpit has been enlarged, a pad must be glued on top of the kayak directly behind it to protect the disabled paddler when transferring onto the kayak. In addition, a floor pad is also placed on the hull of the kayak to protect the ankles and calves. The foot brace found in most kayaks should be removed.

A great deal of the control of the kayak is accomplished with the hips. If an individual doesn't have control over hips/legs, it is very hard to control the boat without some special assistance. This assistance takes the form of a custom seat and seat belt.

**SEAT.** The seat is needed for two reasons. The first is the lack of ability for most mobility impaired folks to brace themselves in the boat with their knees and feet. The second is the ever-present danger of pressure sores (decubitus ulcers). The solutions to these two problems is a well padded and custom fitted seat.

There are two methods for adapting the seats of a kayak, and even more alternatives can be imagined. First is the easier method which requires less time and experience, but also is not quite as custom fitted. A 2' x 3' piece of ethafoam is used.

Ethafoam is a fairly rigid closed-cell foam that is easily cut and shaped. The existing fiberglass seat is unscrewed or cut out, in its place a piece of ethafoam is fitted on the bottom of the boat.

This piece is then shaped to a snug fit when the boater sits on it. This shaping consists of scooping out, with a knife or wood rasp two depressions for the boater's ischial (posterior) to fit into. These depressions do not have to be perfect, since the boater will be sitting on a piece of foam on top of the ethafoam. But take some time and try to accurately sculpt the bottom piece. This is the most critical piece of this seat.

The next step is to build up a back on this seat. This back will help those who don't have good trunk balance for stability. The back should be as high as the bottom of the cockpit and can extend underneath the top of the boat to support the boater's weight when sitting on the top of the boat while getting in. This seat system should be screwed to the bottom of the boat.

The ethafoam seat is fairly quick, easy and can be a one-man operation. A personal customized seat is more complicated and time consuming. A custom molded fiberglass/foam seat is molded directly from the posterior of the boater.

#### PROCEDURE FOR CUSTOM MOLDED SEAT.

Take a heavy weight cardboard box, approximately 20 inches long, 20 inches wide and 8 inches deep. Reinforce this box so that it can hold 30 pounds or more of plaster. Mix plaster, enough to fill the box, almost enough to fill a 5 gallon barrel, and pour it into the box. When the plaster looks "creamy", still soft but getting ready to set, a piece of plastic is put over the top of the box (try to place the plastic, a laundry bag will do nicely, so there is no air trapped between plastic and plaster.) Then the boater sits in the box of plaster. Try to sit so that your back is at least an inch or more from the back of the box, also have your legs spread apart so that a slight pummel comes up in between the legs which will help weight distribution in the boat. Sit in the plaster until it starts to set up before getting out of the mold. This will be the initial mold.

Now there is a large accurate mold of the boater's posterior. This mold should have the plastic removed and it should be "finished." The holes, bumps, ridges, etc. should be filled in or sanded off. A good waxing provides the final touch using a heavy paste wax.

From this first mold a second mold is taken. Simply pour the plaster into the first mold. Make sure to wax or use vaseline or something similar so that the two halves will not stick together. The mold that is taken from this process will be a replica of the posterior. This final mold is used as a form around which the custom fiberglass seat is built.

From this second and final mold a piece of ensolite or something comparable should be glued along the rear and leg part of the mold with rubber cement. After the foam has been glued to the mold so that it covers all areas the seat is to cover, i.e., high enough on the legs and back, a piece of fiberglass cloth of the appropriate size is laid up directly on the foam. This is then worked up to a few layers thick and then left to dry. When the fiberglass is dry remove the plaster from the ensolite/fiberglass and the custom-made seat is finished.

A means for attaching the seat to the bottom of the boat is needed. A standard Yakima-type foot brace system can be used. Take the runner piece and glass it to the bottom of the boat lengthwise. Then the part that would normally support the foot is fiberglassed to the front of the seat. This allows adjustability in placement of the seat, and allows the seat to be taken out when needed. The seat belt can be attached to the sides of the seat

or to the bottom of the boat, whichever seems more appropriate and practical.

This plaster fiberglass custom seat requires some technical expertise and time. It may take several sittings to get a good initial mold. It is suggested that someone with a working knowledge of fiberglass be included in the process, just to facilitate matters.

**GENERAL SAFETY PROCEDURES.** The first concern for those who are being introduced to kayaking is safety. Kayaking can be a very safe and rewarding experience. But kayaking also has the potential to be very hazardous.

It is just this sort of potential that makes it so important to be safety-conscious. Of course, the beginning boater is going to take some swims. The position of being upside down in a boat with legs inside can cause a bit of a panic. Therefore, some basic evaluations need to be done with the aspiring kayaker. The first is to evaluate the boater's physical condition. Secondly, how does the boater react in water? Is that person comfortable on water or is it merely controlled fear? Swimming is inevitable, so if a person is a bit panicky in the water, the time should be taken to practice swimming and relaxing in the water. A few practiced wet exits must be the first skill mastered by the beginning kayaker. Successful completion of a standard swim test is probably an effective way to proceed.

A wet exit is the act of getting out of the boat once it has turned upside down. While this maneuver doesn't sound too difficult, it can be and it should be practiced before it happens. The kayaker should first practice pulling off the spray-skirt. The next motion is to lean forward and push out. This motion is basically a somersault out in order to help the legs come completely out of the boat. This should be practiced on dry land as well as in the water.

**HYPOTHERMIA.** Hypothermia is a condition that must be guarded against while kayaking. Hypothermia is a result of your body losing heat faster than it can produce heat. The basic information on hypothermia, its prevention and treatment for this common condition associated with cool temperatures and wetness must be secured by all persons who will be kayaking.

**TRANSFERRING INTO A KAYAK.** A person in a wheelchair first transfers on to the back of the kayak, then they put their legs into the cockpit. From there they just slide forward over the tip of the boat and into the seat. A piece of foam on the bottom of the boat will protect the ankles from sores, as well as from the abrasive qualities of fiberglass.

The structural modifications noted in Section II combined with a piece of foam fixed directly behind the cockpits will assist an easy entry into the boat.

**RIVER SAFETY.** If the boater is interested in paddling in whitewater or rivers, much greater instruction and information is required. The beginning paddler must learn from experienced river runners. Many excellent books are available and there are schools that provide instruction in paddling techniques, how to read whitewater rivers and how to travel safely down rivers.

**EDITORS NOTE:** For further information on kayak design, additional resources and available instructional programs, readers are encouraged to contact the Vinland National Center, 3675 Ihduhapi Road, Loretto, Mn. 55357  
Phone: (612) 479-3555 - voice or TTY

ACCESS TO WINTER: PULK SKIING, AND ICE SLEDDING FOR  
PERSONS WHO ARE MOBILITY IMPAIRED

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LORETTO, MINNESOTA

Snow is usually an unpleasant sight for persons who use wheelchairs. Wheeling on ice and snow covered surfaces is at worst hazardous, and at best no fun. Until recent years wheelchair users in the northern United States had only two options for participating in fitness activities during the winter months: staying with indoor sports or moving to the southern states. Now, pulk skiing and ice sledding are outdoor pursuits which open many avenues of participation for persons who were

previously excluded from sports such as cross-country skiing, alpine skiing, and ice skating. Pulk skiing, cross-country and alpine skiing, and ice sledding offer persons with mobility limitations excellent opportunities for enjoying the outdoors and staying active during the winter months.



## PULK SKIING

Pulk skiing was introduced in the United States from Norway where pulks were used as cargo sleds for over 100 years. Faced with vast stretches of snow-covered ground to travel across, the Lapplanders of northern Norway used reindeer to pull their cargo pulks while they skied along beside (Seeman, 1981). Eventually pulks were developed which cross-country skiers pulled with a harness. Modern pulks, made of fiberglass, were used by mountaineers and others to transport equipment before they were adapted as a mobility device.

Children too small to ski independently, can be pulled in a cargo pulk behind an adult. Cross-country skiers pulling the children in pulks use a waist harness and two tubular poles to attach the sled.

## ICE SLEDDING

Ice sledding, like pulk skiing, has historical roots in Norway. It was derived from a method of transportation utilized by Norwegian fishermen in the last half of the 19th century. In the 1860's, fishermen who lived along the fjords west of Oslo created long wooden sleds to transport themselves across the ice to the winter's fishing grounds. On their return, the fishermen sometimes raced the thirteen foot sleds, loaded with the day's catch of fish, back to the shores. Nearly one hundred years later the sleds were adapted so that persons with mobility impairments could skate about on ice (Seeman, 1981).

The Norwegian term for ice sledding is "pigging."

Having been introduced recently to the United States, ice sledding as a sport has not benefited from the experience of winter enthusiasts from this country as has the sport of pulk skiing. Information concerning ice sledding is only now filtering in from Norway. At the Ski for Light International in February 1981 (Saratogo Springs, New York) thirteen participants with a wide range of mobility limitations (mostly paraplegics) were introduced to ice sledding by Karl Henrik Seeman, a Norwegian pulk skiing and ice sledding enthusiast. Mr. Seeman shared his experience with the group and taught techniques for poling and sharpening the sled blades. The ice sled has been adapted in Norway, Canada, and the United States for use in activities such as speed skating and team sports similar to ice hockey. (See Photo 2)

## RECENT DEVELOPMENTS IN THE UNITED STATES

The pioneering organization developing cross-country pulk skiing in the United States is HEALTHsports, Inc. (formerly Ski for Light, Inc.) which had its first pulk skiing program as part of the 1975 Race for Light in Dillon, Colorado at the annual event now known as the Ski for Light International (a cross-country skiing program for persons with visual impairments and physical disabilities). Several Ski for Light regional programs also involve pulk skiing events which include alpine, cross-country and ice sledding (Orr, 1981).



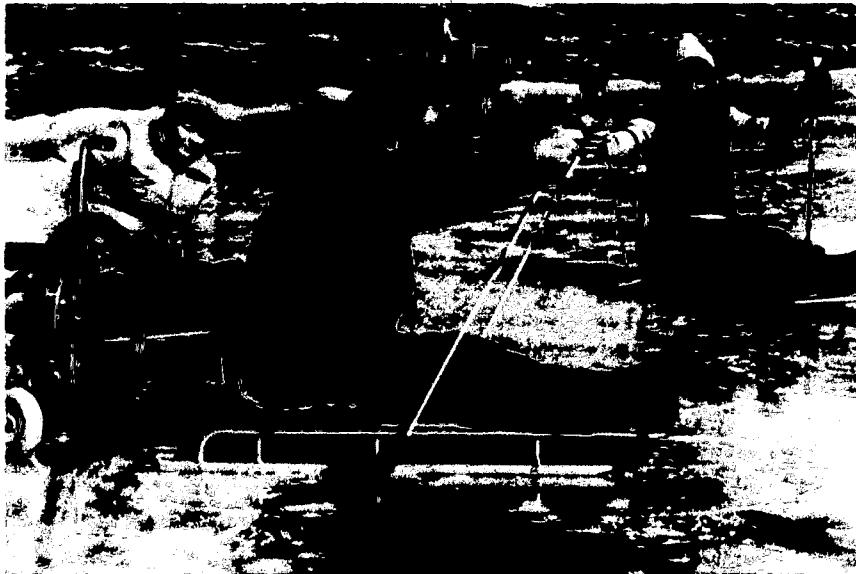


Photo 2

Karl H. Seeman from Norway instructing Americans in the technique of ice sledding.



Photo 3  
Cross-country pulk skiing

The Rehabilitative Engineering Research and Development Center (RERand) of Palo Alto, California has focused on the development of alpine sled skiing (Axelsen, 1980). Their efforts have resulted in the design of the Arroya alpine sled as well as the development of training programs for alpine sled skiers and tetherers (trained skiers who ski behind beginning alpine sled skiers and tether them for safety purposes).

Alpine sleds, such as the Arroya, evolved from the Norwegian pulk because of a need to control the direction and speed of the sled while traveling downhill. The most notable difference between alpine sleds and pulks is the metal edges which are attached to the bottom of the alpine sleds. These edges allow the sled to perform like an alpine ski with more directional control than the smooth bottomed pulks.

The Norwegian pulk, which is used mainly for cross-country pulk skiing, is constructed of fiberglass. It is basically flat bottomed and varies in length and width due to the different designs and molding methods used. The design of sleds/pulks has not been standardized at this time, and perhaps should not be, due to the variety of disability levels of the users and a wide range of uses for the pulk. In addition to recreational skiing (both cross-country and alpine) for fun and fitness, pulks have been successfully used by persons with disabilities for winter camping, hunting, shoveling snow, hauling wood, playing in the snow, ice fishing and dog sledding.

At this time, no pulks have been designed for use by children with mobility impairments. Smaller sleds should be developed and potential users sought and encouraged to participate at the earliest possible age. The Vinland National Center is in the process of developing and testing pulks, sleds and the necessary equipment which will accommodate the largest population and variety of users.

In November of 1980, pulk skiers, equipment designers, and other interested persons from across the United States met at Vinland National Center and offered information regarding the development of procedures for training, competition, safety, and pulk design. This state-of-the-art meeting provided the Vinland staff with the initial information necessary to develop a comprehensive pulk skiing and ice sledding manual. After testing several pulk designs and teaching techniques during the 1980-1981 winter season, the three pulk skiers/instructors on the Vinland staff planned several pulk skiing (both alpine and cross-country) and ice sledding clinics for subsequent winters. The clinics are held at the Vinland National Center and are conducted in cooperation with other agencies throughout the United States. Training programs are also available at a variety of ski areas throughout the United States for those who wish to experience cross-country or alpine skiing in the pulk or other sleds.

New sled designs are currently being developed in the United States. Most are prototypes in the formative stages and are being tested, analyzed and revised. Certain sleds may be designed to suit a specific type of skiing such as alpine skiing.

Other designs are more generalized for variety of function and could be used for cross-country skiing, alpine skiing, and dog sledding (Orr, 1981).

### DOG SLEDDING

An exciting alternative to pulk skiing for mobility impaired persons who also have limited upper body strength (persons with cerebral palsy, quadriplegia, etc.) is dog sledding. Cross-country pulk skiing can be quite strenuous for persons trying this sport for the first time. Dogs can be used to assist the beginning pulk skier until enough upper body strength is gained to push the pulk independently.

A pilot program was conducted by Lynx Track and Wilderness Inquiry II during March of 1981 in a remote area of northern Minnesota near the Boundary Waters Canoe Area. The interdisability program consisted of individuals with paraplegia, post-polio, total visual impairment, head injury and congenital birth defects as well as an equal number of able bodied participants.

Participants slept under the stars and traveled within a wilderness area where the only means of access and mobility were dog sleds and cross-country skiing (motorized vehicles are not allowed in portions of the Boundary Waters Canoe Area). Independent dog sledding was accomplished by most in small, sit-in dog sleds which had attached hand operated brake and steering devices. The Norwegian pulk was also used successfully as a dog sled. Attached by harness to the front of the pulk (see illustration A), two dogs negotiated steep hills and effectively traveled long distances in the wilderness area. The skiers

in the pulks used short cross-country ski poles to assist the dogs climbing steep slopes and moving about in soft, deep snow (Orr, 1981).

### SAFETY FACTORS

The consideration of safety factors is a must in pulk skiing if the sport is to continue to develop as a viable recreational activity for persons with mobility impairments. Accidents are being prevented through the development and instruction of sound safety procedures, however, pulk skiers and instructors must learn and practice these techniques. Some ski areas have banned sleds from their slopes because of isolated incidences of irresponsible sled use. Pulk skiing and sled skiing will continue to develop only as long as participants ski responsibly, safely, and are properly trained. (A comprehensive list of training areas and instructors is available from the Vinland National Center upon request.)

The following safety procedures must be practiced by all pulk skiers, sled skiers, ice sledders and/or instructors in order to make these sports safe and enjoyable:

- . Beginning skiers must train with an experienced skier and/or instructor in order to maximize the enjoyment of skiing and minimize the possibility of injury.
- . Use caution when moving about, on, or near parking lots or anywhere motorized vehicles might be. Pulk skiers are below the field of vision of drivers.

Always maintain control of your sled and be able to stop. Should you lose control, tip the sled on its side to stop.

Each pulk/sled skier must learn to understand his/her own cold weather tolerances. Keep in mind that one person's tolerance might be much less than another's.

Only trained dogs should be used to pull pulks and the pulk skier and/or instructor must be in complete control of the dogs at all times.

Paraplegics and others with reduced sensation should check sides, buttocks and legs frequently for signs of frost bite and pressure sores.

Never tie a pulk directly to a motorized vehicle.

Pulk skiers, sled skiers, and/or instructors must understand the preventative techniques, recognize the symptoms, and know proper treatment for hypothermia and frost bite.

Consult with pulk skiing instructor and training manual for more complete details of safety procedures.

### CONCLUSION

Increasing awareness of the needs and abilities of persons with disabilities combined with the pioneering efforts of several wheelchair users has brought exciting new types of healthsports to the United States. No longer is ambulation a prerequisite to enjoying the wonders of the winter

environment. The thrills of skiing through fresh powder snow, gliding across a frozen lake, winter camping and the joys of experiencing nature in the wintertime are all available to persons with mobility limitations. Thanks to increased information sharing and the technology available to put creative ideas into practice, even winter has become accessible to all!

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Orr, Larry. Pulk Skiing, Sled Skiing and Ice Sledding for Persons With Mobility Impairments, 1981. Available from the Vinland National Center, Loretto, MN. 55357.

Seeman, Karl H. Personal Communication,  
February, 1981.

**FOR MORE INFORMATION:**

**PROGRAMS**

Ski for Light - HEALTHsports, Inc.,  
1455 W. Lake St., Mpls., MN 55408  
(612) 827-3611. (Annual February  
week-long X-C ski event with  
blind/sighted/mobility impaired -  
also regional events)

Breckenridge Outdoor Education Center,  
P. O. Box 687, Breckenridge, CO 80424  
(303) 54306422. (Alpine skiing,  
winter camping)

Lynx Track - Will Steger  
P. O. Box 785, Ely, MN 55731.  
(Interdisability programs in dog  
sledding and winter travel)

Ski for All Foundation - Chris Kolb  
521 Wall St., Suite 32A, Seattle, WA  
98121, (206) 623-2714. (Alpine  
skiing)

Courage Alpine Skiers  
c/o Courage Center - Duluth, Duluth,  
MN 55802, (218) 727-7817. (Alpine  
skiing)

Vinland National Center,  
P. O. Box 308, Loretto, MN 55357  
(612) 479-3555. (Alpine skiing,  
cross-country skiing, ice sledding)

**EQUIPMENT**

Beneficial Designs, Inc.  
5858 Empire Grade  
Santa Cruz, CA 95060.  
(Arroya alpine sled)

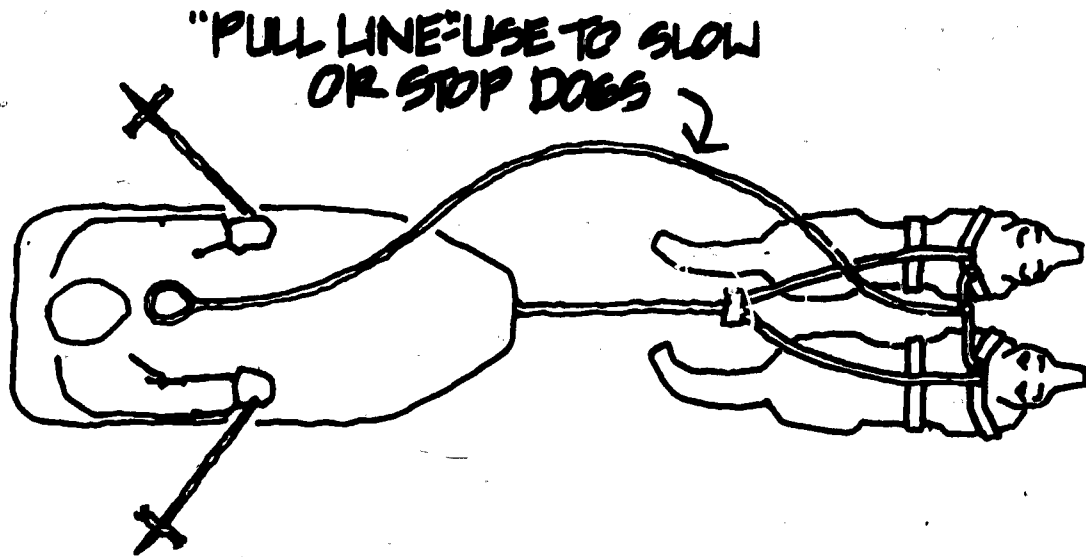
Mountain Smith, 12790 W. 6th Place,  
Golden, CO 80401. (Smith  
Sled-Alpine & X-C Sled, also dog  
sleds and harnesses)

Mountain Man, 720 Front St.,  
Bozeman, MT 49715. (Sit-N-Ski sled)

For more information on where to  
order pulks and ice sleds contact:

VINLAND NATIONAL CENTER  
P. O. Box 308  
Loretto, MN 55357  
(612) 479-3555 Voice or TTY

ILLUSTRATION A



PULKING WITH DOGS



## OPERATION FIRST STEP

STEVE SUMMERS AND  
LEA SANTACROSS  
COLUMBIA, MISSOURI

Snow skiing is considered by many, to be one of the most thrilling, inviting, and artistic of all sports. It requires endurance, coordination, and balance, all of which have made snow skiing seem virtually impossible to a large number of people, mainly those with disabilities. Throughout the last 15 years this philosophy has changed as new techniques continue to be developed, allowing people with mental and physical disabilities to enjoy and participate in the sport of snow skiing with family and friends.

The first countries to develop ski programs for the disabled were Germany and Austria in 1948. American involvement came to notice in 1962 with the forming of the "National Amputees Skiers Association". Until the mid 1970's handicapped ski programs were primarily geared towards individuals with one or more amputated limbs. They have gradually expanded and ski instruction is now provided to persons with hearing and/or visual impairment, mental retardation, cerebral palsy, spina bifida, multiple sclerosis, post polio, aneurysms, paraplegia, and quadriplegia.

Depending on the financial status, programs may offer free lift tickets, equipment, and instruction; if fees are charged they usually are minimal, since many of the programs operate largely on tax deductible contributions.

Since skiing is a physically demanding sport and safety is a major priority of all ski programs, potential participants are strongly encouraged to start an exercise program three months prior to skiing. The majority of handicapped ski programs inquire about the extent of the individual's disability and skill level before admitting anyone into their program. This is to insure that proper equipment and instruction are provided, allowing the individual to ski safely and as independently as possible. Typical questions are: 1) what is the nature of the disability, 2) what is the extent of the involvement, 3) what type of equipment is needed, 4) type of instruction and how to provide it, and 5) are any modifications needed?

Programs have evolved out of the need to introduce and involve disabled persons in winter activities. The winter months are often viewed with dismay by persons with physical disabilities. While a large portion of the population enjoys outdoor winter recreation, many people with disabilities are reluctant to venture outdoors unless absolutely necessary. This is due to the extreme effects the cold has on their body and the restrictions winter conditions can place on their mobility. Through snow skiing it is possible for the disabled person to use these conditions to their advantage. This is important since the outdoors offers a person the opportunity to fulfill their needs for adventure, exercise, psychological growth, and self fulfillment at a pace that is comfortable to his/herself.

It's felt that skiing is of great therapeutic value to handicapped persons in that it allows them to participate and compete on the same level as their non-disabled counterparts. The activity allows the person to grow mentally, socially, and physically.

For the person that has difficulty with mobility, skiing has been known to offer a freedom of movement possibly never experienced before. Through skiing, a person having difficulty in walking can ski down the mountain in one smooth motion.

The recreational and physical benefits snow skiing affords people with disabilities justifies the programs worth, however, the most important benefit comes from within each individual. It's the realization that they have attempted and accomplished, on their own, something they perhaps never dreamed they could do. They gained self-confidence and pride in themselves, a very important aspect of complete rehabilitation.

The above benefits of snow skiing were discussed by a group of students enrolled in TODCOMP (Training of the Disabled in Computer Programing) at the University of Missouri-Columbia. This new interest was aroused after hearing a member of the staff describe a recent ski trip he had taken. After a number of inquires about the trip, a film on the Winter Park Handicapped Ski Program was shown to the students prompting them to begin making plans for their own trip.

The students first priority was to make reservations for lessons with the Handicapped Ski Program in Winter Park, Colorado. Due to the large number of participants in the

program, approximately 300-500 per week, it's necessary to make reservations a minimum of three months prior to the visit.

With only three months to plan the trip the group had to work rapidly. When planning a trip such as this, there are a number of items to consider. The group decided the most efficient and productive way to make preparations was to divide into groups.

The most difficult and pressing item was locating accessible living accommodations. At the time of the trip the Brookside Inn was the only motel with accommodations for persons using wheelchairs in the Winter Park area. Winter Park stated they were planning to make improvements concerning accessibility within the Winter Park community.

Due to the extreme cold and physical exertion that is usually related to skiing, hypothermia and recommended exercises were discussed and practiced by the group. The importance of adequate clothing was discussed in order to insure against frostbite.

Various other responsibilities of the groups included identifying accessible rest areas, checking weather reports along the route, notifying the highway patrol in case of an emergency, and organizing a bake sale to raise money.

Individual student responsibilities consisted of ordering extra medical supplies, filling out liability forms, purchasing traveler checks, and supplying attendants with emergency telephone numbers. It is worth noting that for several of the students this was their first experience at planning a trip, making it necessary to give them further advice in their preparation.

For this trip three personal attendants accompanied the students. It is recommended that if attendants are needed, they should be familiar with the students needs and that there are enough provided to meet everyone's needs.

Before individuals are accepted into the Winter Park program they must go through a diagnosis-appraisal procedure. This is a series of questions to promote safety and determine if the individual has the physical capability to ski. It is not known if all programs have this same procedure but for the convenience of everyone concerned it is advisable to check with the individual program at the time you make reservations.

Once arriving at Winter Park everyone was fitted with the necessary adaptive equipment and instructions enabling them to whip down the mountains, and whip down they did. By their facial expressions and comments, it was obvious that all the hard work prior to the trip had paid off. While loading the vans to return it was evident that everyone had made a number of good friends, built confidence in their own capabilities, and had a great time.

For persons interested in the ski trip planned by the TODCOMP students, a slide show has been prepared entitled, "Dreams Can Become True." It is based on the TODCOMP trip and can be acquired by writing or calling TODCOMP, Rt. 4, Box 199, Columbia, Mo. 65200 Phone: 314-449-3481.

## ORIENTEERING: AN ACTIVITY FOR HANDICAPPERS

INGE MORISBAK  
BEITOSTOLEN, NORWAY

Orienteering as a sport was invented in Scandinavia and has become very popular. In Norway it's one of the most popular sports during summertime and definitely the most extensive family sport. As a competitive sport the objective is to find one's way through unknown terrain as fast as possible by means of a map and compass. The course is marked on a map with a number of control markers, which must be located. The individual must find each marker in the best way possible and without assistance from others. Did somebody say that the shortest distance between two points on a map is a straight line? Adhering to that adage, one will learn orienteering the hard way.

This presentation will deemphasize the term "as fast as possible and the competitive aspect," and will analyze the sport as a suitable activity for all ages and ability levels.

Orienteering courses have different lengths and difficulty levels. Courses can be chosen by combining described lengths and degree of difficulty. Descriptions like these are common:

<u>Length</u>	<u>Degree of Difficulty</u>
Short (5 km)	Easy
Medium (5-10 km)	Medium
Long (10 km)	Advanced

In the Degree of Difficulty, the Easy, Medium and Hard, are dependent upon the terrain and the placement of the post markers. Combinations of lengths and degrees of difficulty can be chosen. General experience and ability level, are the two most common factors used in choosing a specific course.

Orienteering is a mass sport in Norway and, more than any other sport, a family sport. All family members can participate regardless of age or physical fitness. The Norwegian Orienteering Association (NOF) has greatly encouraged family participation through community contests that emphasize participation as much as competition. This has turned many community inhabitants into being users of "mother nature" in a new, different, and exciting way. NOF is one of the sports organizations that has followed the motto "Sport for all" most in practice.

In addition to timed orienteering, tour-orienteering has also become very popular. Tour-orienteering includes different courses every week. The goal is to find as many markers during that week as possible. The markers can have certain point values related to the difficulty of finding them.

### ADAPTATION OF THE ACTIVITY

Based on one's knowledge of orienteering, appropriate adaptations can be made for individuals with different skill levels. The following analysis chart has been used as a general method of adapting orienteering activities. (See analysis chart and description of how to use it.) The analysis chart can be used as a worksheet and new ideas can be added as experiences are gathered.

### DESCRIPTION OF HOW TO USE THE CHART

- A. General analysis of activity (col. I, II, III).
- B. General possibilities for adaptations of activity (col. V, and VI upper part).
- C. Lower limits of ability (skill) requirements for the activity (col. VI). Lower limit for meaningful activity.
- D. Describe the actual handicapped person or handicap group (col. IV).
- E. Make decisions about the activity's suitability to the person or the group.
- F. Add special adaptations for the person or for the group (col. V and VI, lower part).

### A SAMPLE OF EXPERIENCES AND SUGGESTIONS FOR ADAPTATIONS

- The orienteering literature can provide you with many ideas about non-competitive forms of orienteering.
- Ways of moving are numerous. Orienteering from horseback, canoe, kayak, wheelchair, bike, for example, have been very successful. Couples or groups can move together in the most feasible way based on the individuals' abilities.
- At the post markers all kinds of additional tasks could be included to meet specific talents among the less experienced in using map and compass.

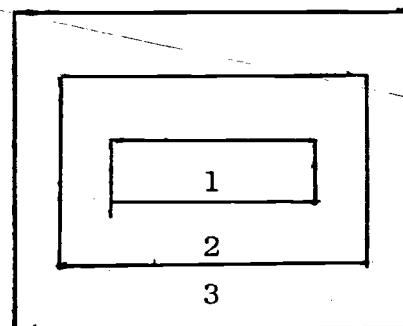
### SOME STEPS ABOUT THE TEACHING OF SKILL TO USE A MAP

There are four main steps in the learning process of orienteering.

1. Learn to know the map.
2. Do orienteering by help of the map.
3. Learn to use the compass.
4. Do orienteering by help of map and compass.

For beginners it's usually enough to concentrate the learning around the map. Orienteering can be beautifully done without compass.

An important principle in teaching children understanding of a map is to start with something small and very familiar like the classroom or the gym. The small area one begins with should be included in every enlargement of the area the map covers. This is figuratively shown below.



ANALYSIS CHART

ACTIVITY: Orienteering

I	II	III	IV	V	VI	VII
Basic characteristics (Codes, rules, ideas.)	Equipment regularly used	Skills regularly required	Handicapping condition	Adaptations of activities	Adaptations of equipment; special equipment	Ability (skill) requirements. Lower limit (refer to meaningful activity)*
<p>Move on foot across country through a course marked on a map by starting point, a number of control points and a finish point.</p> <p>The control and finish points are discovered through the use of a map, a compass and own initiative.</p> <p>The course should be finished in shortest possible time.</p>	<p>Map Compass Stride-teller Something to keep the map in Control-card Control markers</p>	<p>Move on foot</p> <p><u>Map</u> Read a map.</p> <p>Understand map signs.</p> <p>Relate the map to the actual ground it shows</p> <p><u>Compass</u> Find north</p> <p>Oriente the map</p> <p>Help find the direction to go</p> <p>Measure the distance</p>		<p><u>General:</u></p> <p>Distance of the course</p> <p>Way of moving</p> <p>Emphasize other aspects than time (find the control markers)</p> <p>Additional task</p> <p>Number of control markers</p> <p><u>Special:</u></p>	<p><u>General:</u></p> <p>Level of details on map</p> <p>Scale of map</p> <p>Model of terrain</p> <p>Map to feel Equipment for carrying the map</p> <p>Feel the compass (SILVA)</p> <p>Equipment for carrying the compass</p> <p>Control-cards alternatives</p> <p>Control markers -sound, -color, -smell</p> <p><u>Special:</u></p>	<p><u>Psychomotor:</u></p> <p>Moving ability</p> <p><u>Cognitive:</u></p> <p>Relate map/model to actual ground</p> <p><u>Affective:</u></p> <p>Motivation</p>

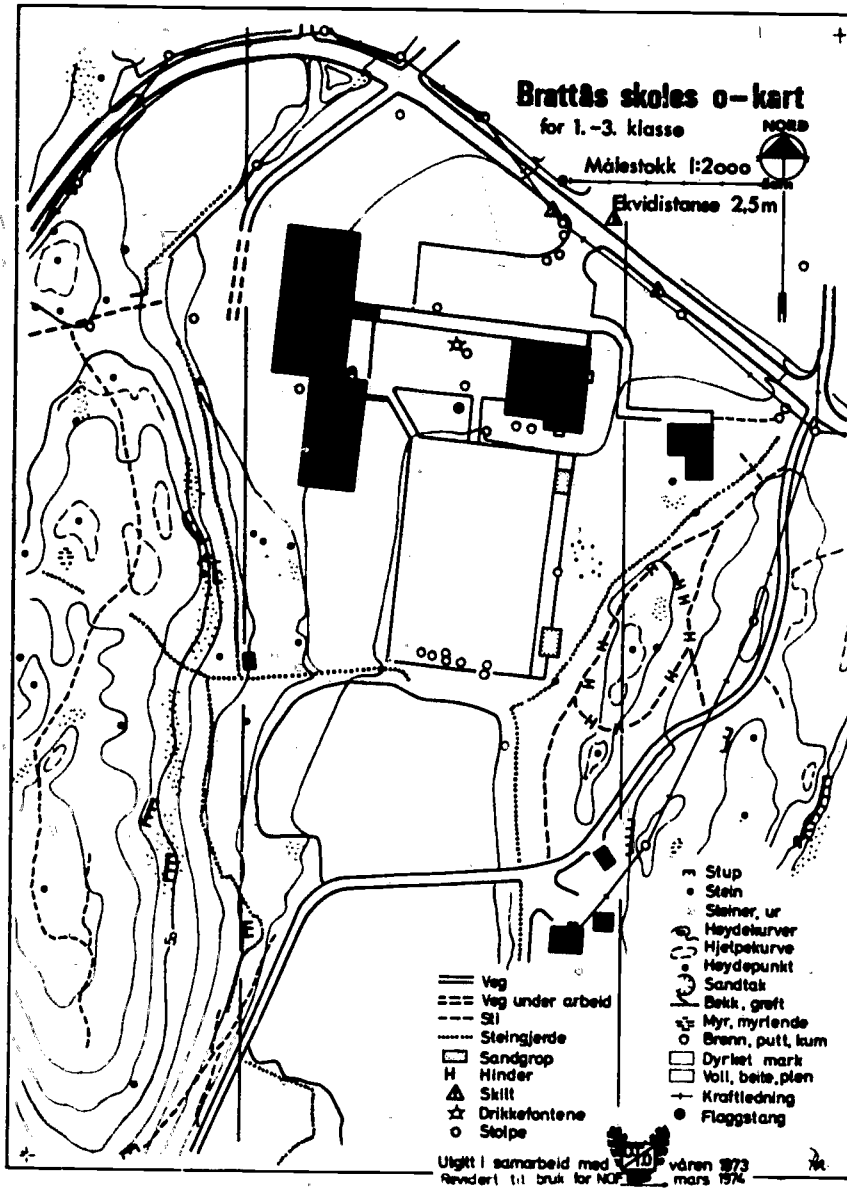
\*Meaningful activity: The activity can be performed according to the described basic characteristics of the activity.

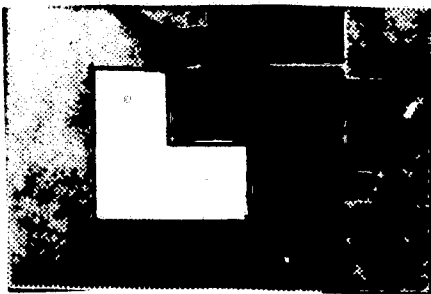


<u>Example of range of maps:</u>	<u>Scale/Contour interval</u>	<u>Map-type</u>
1. Classroom		Self-made maps
2. Gym		
3. Building		
4. Smaller area	1:500/1m	
5. Larger area	1:1000	Instruction
	1:2000/2.5m	Maps
	1:5000/5m	
	1:10,000/5m	
	1:15-25,000/5m	Orienteering
	1:50-1000,000/5-10m	Area Maps

(SEE NEXT PAGE FOR EXAMPLE OF INSTRUCTION MAP FOR SCHOOL (K-9))

## SAMPLE INSTRUCTION MAP FOR A SCHOOL (K-9)

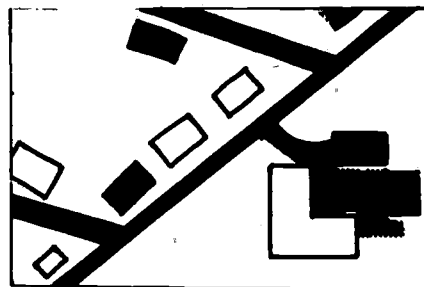




I. Scale 1:500

Tasks (I and II)

- a) Color the map with right colors (red houses are red on the map).
- b) Go for a walk. Recognize the places.
- c) Find post markers, one by one.



II Scale 1:1000



III. Scale 1:1000 (without colors)



IV. Scale 1:5000 (the right map colors)

Tasks (III and IV)

- a) Go for a walk. Recognize the places
- b) Find post markers, one by one
- c) Put some more details on the map.
- d) Courses with 2-3 post markers.
- e) Courses with many post markers.

## ORIENTEERING FOR THE BLIND

Providing orienteering for the blind is a challenge, but quite possible. One system which has been used in practice with success at Beitostolen Helseportsenter is built upon a map where the details can be read with the tactile sense, and a bearing system (sender and receiver) for finding the post markers. The map is made on a piece of plywood (ca 25x30 cm). First a ground plan is outlined. Houses are small pieces of plywood glued upon the main piece. Roads are 5mm wide strips of sandpaper. Grained papers are paved roads and heavily grained paper is dirt roads. For measuring distance on the map there are stitched nylon traces across the roads. Streams are marked by plastic strings which are glued to the piece of plywood. Strings cross the road, indicating presence of a bridge. A fence is marked by pins which are placed in the plywood with even intervals. If there is a certain distance between the poles in a fence, this could also be used for measuring distance. Small pins which are pressed fully down in the plywood means the places where the bearing should start to find the post marker. Similar pins on one side of the road in a road crossing indicates to which side you should go.

The bearing system is a sender and a receiver. The equipment can be purchased in Norway for about \$100 for a sender and about \$70 for the receiver through the Norwegian Relay League. The sender is placed as a post marker. It sends out beeping signals with different frequencies in 360 degrees and signals can be received regardless

of how the receiver is held. There is an ear plug attached to the receiver and the orienteer turns with the receiver; the direction he gets the lowest signals from is the direction towards the post marker (sender). Some meters before the orienteer comes to the sender, he will meet a rope stretched out in 5 meter length between two poles. When the orienteer meets this rope, he is on the post marker. To come back to the road the same system of bearing is used. An additional help for coming back to the road is to attach a 1 meter long stick horizontally to the rope at one end and placed in the right direction for coming back to the point of the road where he started.

This system of orienteering can be used many places. The post markers (senders) could be used more than once if one starts the bearing from different places in the course. The rope could be placed all the way around the sender. Description of the course and the location of the post markers could be described in braille and attached to the plywood. The blind should have a guide/helper the first time trying the system, but the goal is to do it independently. Through the combined use of the tactile sense by feeling of the map and feeling the ground with the feet, and the use of the auditive sense by using the bearing equipment and listening to nature's own sounds (e.g., running streams, echo), orienteering is found to be an exciting activity for the blind.

Based on some of these experience-examples, it is apparent that other ideas need developing for providing orienteering as an activity for handicappers.

## MUSIC: AN INTEGRAL ELEMENT OF THE CAMPING EXPERIENCE

MARY P. MCCARTHY  
WASHINGTON, D.C.

Music is a powerful and unique form and influence of human behavior. It can serve as a unifying activity--an activity in which every individual can participate despite the degree of handicap or condition. In the area of camping and outdoor education with persons who are disabled the benefits and possibilities of shared music experiences are inexhaustive. Music quickly becomes a natural bond for group interaction in the milieu of the outdoors. Song sharing and relaxed singing around a campfire help to create an atmosphere of community and warmth.

In designing programs for camps and outdoor education centers, participant goals are our foremost consideration. Music addresses the following fundamental goals:

- Music enhances self esteem by helping individuals realize feelings of participation, belonging and achievement.
- Music promotes socialization and interaction.
- Music aids in language development.
- Music increases physical development/perceptual motor development.
- Music creates an opportunity for self expression.

Structured and spontaneous music experiences will contribute to the participant's growth in these and other areas. The more media we utilize (camping, sports, games, music, art) to help participants attain goals, the greater the likelihood will be for success.

Participation in music will reinforce efforts in other areas while offering an additional outlet for expression.

Music can be used effectively in a very simple manner. Our own "built-in" instrument, the human voice, is often all that is needed. Of primary import is the attitude of the song leader. Contagious enthusiasm and a willingness to share will always compensate for musical shortcomings. A song leader who sheds inhibitions, encourages others to feel comfortable about their voices. Everyone can make music. One who feels inadequate musically should invest this energy in mastering a half dozen guitar chords, or purchasing a recorder and instruction book and going to work.

Singing may be varied by humming and whistling a tune from time to time. KAZOOS and HUMAZOOS are fun instruments which help to draw out the non-singer. Claps, snaps, stomps, and other "body noises" make wonderful musical embellishments, and when the memory fails, a chorus of "la's" serves the purpose well. Other instruments which are welcome additions around a campfire include the following:

The GUITAR AND BANJO are the instruments on which simple folk tunes were born. Because these songs are usually built on three or four simple chords, a quick course on these instruments can prepare a beginner for a campfire debut.

The AUTOHARP provides the most simple chordal accompaniment. This instrument is equipped with buttons which, when depressed, produce chords. The autoharp may be held close to the chest, on the lap, or may be placed on a table. Very simple strumming patterns will yield pleasing sounds.

The APPALACHIAN DULCIMER is another simple "lap instrument". Easy-to play tunes can be picked out on one string, while the other strings produce a drone sound. To the delight of the novice, this is an easy instrument to learn, teach and manipulate.

PERCUSSION INSTRUMENTS delight children and adults of all ages. Claves, woodblocks, tambourines, triangles, wrist bells, cymbals and drums improve coordination and lead to an awareness of rhythm. Many of these instruments can be played spontaneously or with a modicum of instruction.

HOMEMADE INSTRUMENTS unleash musical possibilities by allowing us to use what is available at home, in nature, or wherever we may be.

Creating a song repertoire unique to a particular camp or outdoor education center is very important. The process of sharing a set of songs with others over time can create lasting bonds. Encouraging all group members to share favorites, as well as interspersing new songs will result in a full and satisfying list. Standard folk tunes are universal and easy to learn. A listing of "songs that work" will be included at the end of this paper.

Combining music and movement is an enjoyable way to integrate several senses. Songs can be composed in a simple fashion to teach almost any concept. Every day skills such as body parts and other basic vocabulary,

arithmetic, and sequential memory skills can be learned through music like "Head and Shoulders" and "This Old Man" which naturally lend themselves to movement. Often new songs can be composed in a group and combined with movements--a good opportunity for a cooperative effort.

Programs in the out-of-doors should be places to celebrate the creative spirit in all of us. Including music as a part of this environment is an excellent way to address clients goals while enhancing a full spirit of community.

### "SONGS THAT WORK"

1. Song for Judith (J. Collins)
2. The Visit (Joe Wise)
3. Anatomy Song (Wise)
4. The Garden Song (Dave Mallet)
5. Peanut Butter and Jelly
6. This Old Man
7. Skip to My Lou
8. If I Had a Hammer
9. If You're Happy and You Know It
10. He's Got The Whole World
11. This Little Light Of Mine
12. Shoe. Fly
13. Row Row Row Your Boat
14. Michael Row the Boat Ashore
15. Wade In The Water
16. She'll Be Comin Round th. Mountain
17. Froggie Went a Courtin
18. Rise and Shine
19. Old MacDonald
20. Come and Go With Me to That Land
21. Eensey Weensey Spider
22. Where Is Thumbkin
23. Head, Shoulders Baby
24. Head, Shoulders, Knees and Toes
25. Bingo
26. The Bus Song
27. The Bear Went Over The Mountain
28. Alouette
29. I've Been Working On The Railroad
30. On Top of Old Smokey



31. Frere Jacques
32. You Are My Sunshine
33. Weave Me No Sunshine
34. Singin' Rooty Toot Toot (Staines)
35. This Land Is Your Land
36. Get Together
37. Blowing In The Wind
38. Proud Mary
39. 500 Miles
40. O Susanna
41. Clementine
42. Day Is Done
43. Here Comes The Sun
44. Lord of the Dance
45. I Believe In Music
46. Sloop John B
47. Puff The Magic Dragon
48. Sing, Sing a Song
49. O, The Horse Went Around
50. Teach Your Children
51. Let It Be
52. I Get By With A Little Help From My Friends
53. When Johnny Come Marchin Home
54. Tom Dooley
55. Joshua Fought The Battle of Jericho
56. Turn Turn Turn
57. Country Roads
58. Mr. Bojangles
59. All God's Creatures
60. Bill Groggins Goat
61. Boa Constrictor
62. Do Your Ears Hang Low
63. Home On The Range
64. On Top of Spaghetti
65. I Saw A Bear
66. John Jacob Jingle Heimmerschmidt
67. There Was An Old Woman Who Swallowed A Fly
68. Rabbit In The Woods

### BIBLIOGRAPHY AND DISCOGRAPHY

Brace, Geoffrey and Burton, Ian.  
Listen! Music and Nature. London:  
Cambridge University Press, c. 1976.

Includes sections on the sounds of nature, animal sounds and languages, music and magic, and the first musical instruments. Gives creative and workable examples for programming.

Doll, Edna and Nelson, Mary.  
Rhythms Today. New Jersey: Silver  
Burdett, 1965.

Good sourcebook for rhythmic activities and creative movement for children. Book is divided into developmental stages with age and development taken into consideration.

Douglas, Donna. Happiness Is Music, Music, Music! For publishing information and availability contact: National Association for Music Therapy, 901 Kentucky Street, Suite 206, Lawrence, Kansas 66044

Comprehensive resources for planning music/eurythmic programs for the elderly:

Gell, Heather. Music, Movement and the Young Child. Pennsylvania: Volkwein Brothers, Inc., c. 1973.

Tremendous resource for anyone interested in rhythmic movement, music, and creative dramatics. Ms. Gell studied with Emile Jacques Delcroze. Activities are applicable to all ages although the title does not suggest.

Ginglind, David and Stiles, Winifred.  
Music Activities for Retarded Children: A Handbook for Teachers and Parents. Nashville: Abingdon Press, c. 1965.

Large collection of songs, other musical activities and simple folk dancing ideas for MR children. Songs are grouped under 12 themes.

Kenney, Maureen. Circle Round the Zero. St. Louis: Magnamusic Baton, Inc., c. 1974.

Play chants and singing games of city children; jump rope chants, clap pattern songs, ball bouncing games, singing games, call and response chants. Endless possibilities for improvisation and creative application.

Silverman, Jerry. Folk Songs for Schools and Camps. N. Y.: Robbins Music Corporation, c. 1970.

Eighty-one good time folk songs with words, chords and music. Simple arrangements for the average bear.

Wise, Joe. Close Your Eyes I've Got a Surprise and Welcome In. Cincinnatti: North American Liturgy Resources, c. 1974.

Fun songs!!!! These songs bring some real magic. Appropriate for babies through older adulthood. Record and Songbooks available.

### DISCOGRAPHY

Hap Palmer--records and tapes (he has a large collection of very fine recordings). Order from: Educational Activities, Inc., Freeport, Long Island, N. Y. 11520 or Kimbo Educational, P. O. Box 477, Long Branch, N. J. 07740

Seeger, Ruth. American Folksongs for Children. New York: Doubleday and Co.

Ninety favorite folksongs for children. Record and songbook are available.

A WINDOW TO LIFE EXPERIENCES:  
MICHIGAN SCHOOL FOR THE BLIND-CAMP TUHSMEHETA

DEBORAH ANN STUART AND R. JOHN BULLOCK  
MICHIGAN SCHOOL FOR THE BLIND

It is exciting and meaningful when a nonverbal multiply impaired or deaf/blind child discovers he or she can communicate through action. This ability to express is often discovered when at play and particularly when in an outdoor environment. When sharing listening to, or feeling the wind, becoming aware of the smells of the woods, shaping the sand, walking barefoot in the dew moistened grass or through a marsh to touch a cattail, something from within the child often opens up allowing he or she to begin to develop rapport as a "person" with other "persons." What more important lesson can there be?

For those who are blind and have communication by speech, knowledge of a word or concept comes only through doing or experiencing. You begin to know a tree when you climb it, swing from the branches or look by touch from the root to the trunk to the limb, branch, twig, leaf, leaflet, and seed. There is a sequence and succession to it none of which should be missed. Yet, the parts form a whole greater than the sum of the parts as it grows it is a "living" thing. So is a child a "being" thing. Often it is through play that our "self" and "selves" in relation to others is found and expressed. Albert Schweitzer wrote, "We are like waves that do not move individually but rise and fall in rhythm to share, to rise and fall in rhythm with life around us is a spiritual necessity. Nature

compels us to recognize the fact of mutual dependance—each life necessarily helping the other lives that are linked to it.

Therapeutic recreation services at Michigan School for the Blind have demonstrated that through the mediums of music, movement, art, dance, nature and outdoor education, students, staff and volunteers enjoy and benefit from learning and interacting in activities that provide a "growing" for all persons involved.

Making the fullest use of one's leisure time is a concern of all individuals, including the visually impaired. Recognizing this need, Michigan School for the Blind offers a comprehensive leisure time program using both school and community resources. Over three hundred volunteers from Michigan State University, area colleges, Red Cross and the local community assist in leisure time activities. A certified therapeutic recreation specialist supervises the volunteers, program and leisure staff, who help students develop leisure skills both individually and in peer groups of visually impaired and sighted friends. Activities include formal leisure education, leisure time counseling, skill development in arts to sports, cooperative play, leisure exchanges with public school, 4-H or youth fellowship groups, community enrichment activities and outdoor education.

Outdoor education is available to all students. Each student has a fall, winter and spring camp

experience at Camp Tuhsneheta, the schools camp. Campers can learn things as nature study, motor coordination and balance on low ropes courses, camp crafts, archery, waterfront skills, fishing, canoeing, sailing, skiing sculpting with natural materials, singing and preparing camp meals. Winter camping allows cross-country skiing, hiking and ice skating. Short visitations for deaf-blind or multiply impaired children are available according to students ability to be in new surroundings. A separate camping program is available in the summer to public school students who are visually impaired as well as Michigan School for the Blind students at Camp Tuhsneheta. Summer includes an exciting two week Adventure program. During their excursion, students learn to live on what is naturally available to them, or what they can carry on their back while hiking, canoeing and tenting for 2 weeks.

### CAMP TUHSMEHETA

Camp Tuhsneheta is located west of Greenville, Michigan, within 297 acres of pine and oak forests on the beautiful Morgan Mills chain of lakes area. The name, Tuh-sme-he-ta (touch, smell, hearing, taste) is derived from four of the five senses and was chosen from a number of names submitted by students, parents and staff members of Michigan School for the Blind.

This outdoor education facility for the visually impaired was conceived by Robert H. Thompson, past Superintendent of Michigan School for the Blind. The property was purchased for the school in December of 1970, with funds received as gifts and bequeaths.

The area where Camp Tuhsneheta is now located has a long and varied prehistoric and historic background. At the present time there are nearly 50,000 Christmas trees and many acres of 30 year old natural second growth forests of oak, white pine, red maple and others. It has a seven acre private lake fed by a large spring on the property. The lake then empties out into the Morgan Mills Chain of Lakes upon which the east end of the property fronts with a half-mile of undeveloped shoreline. Grouse, racoon, partridge, cottontail, fox and deer are all found at camp. The land is hilly with heavy timber and a small amount of swamp. Elevations vary from a low of 800 feet above sea level to a high of 875 feet.

The first summer camping program was initiated in 1975 when, during a period of five weeks, over 50 visually impaired youth lived in the tents and participated in a camp program which included fishing, canoeing, swimming, archery, hiking and nature study. The sunrises of success in this pilot program was the basis of the proposal to develop the facilities and to expand the services for larger groups of children from around the state of Michigan. The waterfront became a favorite place for swimming and boating as it developed. A small dock and raft house were built during the first years to provide safety and enjoyment for all campers and staff. The sand around the lakes made it necessary to fill in the waterfront to make it safe for swimmers. First the land was cleared and then trees were placed to provide a place for the land fill. Sand was then brought in and a beautiful sand beach was developed. A boat house was added for sailing, paddle boats and canoes. In 1978 a floating pool and decking were built for enjoyment of all.

Every effort is being made to take maximum advantage of the natural environment and to offer the campers opportunities to enjoy the beauty and wonders of nature while they experience the happiness of living and working together.

Members of the Michigan School for the Blind and Camp Tuhsmeheeta's staff believe it is the right of all youth to have fun, to make new friends, to feel the glow of being wanted and needed, to experience new adventures, and to develop strength and confidence through the knowledge that they can be successful living in the out-of-doors.

It is believed that the handicapped receive the same opportunities offered all other children; they need the same well rounded childhood experiences for a well-adjusted personality, and have the same fundamental needs for love, protection, security, acceptance and approval. Handicapped children must be offered the opportunity to achieve, to be accepted, to learn the give-and take of group experiences. They must be assisted to recognize their abilities, admit their limitations, and accept their responsibilities. We believe that the world should concentrate on what an individual can do and not on what he or she can not do.

Camp Tuhsmeheeta was established to afford such opportunities to the visually handicapped. The program is planned as a phase of rehabilitation because of the inherent values of camping; the joy of living and working together with other children under the guidance of adult friends; the chance to develop a measure of independence away from home, the opportunity for new experiences and the discovery of new interests

and skills; a time for socialization and the development of character and personality; a time for leisure and relaxation.

### GOALS FOR ALL CAMPERS

- . To have fun
- . To do new things and learn new skills
- . To develop an appreciation and familiarity with the out-of-doors
- . To develop a sense of worth and independence
- . To develop respect and responsibility
- . To adjust to a camp environment away from home
- . To like and be liked by others and to be socially accepted
- . To develop self-confidence and trust
- . To accept limitation, but make the most of potential
- . To develop new leisure competencies
- . To establish a kinship with the out-of-doors; observing its beauty with curiosity and appreciation
- . To grow in physical stature and return home healthy and happy.

There are four camp sessions at Camp Tuhsmeheeta during a six week summer program-

- Session I: One week program specifically planned for visually impaired campers, ages 8-11
- Session II: One week program for multiply impaired/visually impaired youth, ages 15-25
- Session III: Two week program for visually impaired campers, ages 12-14
- Session IV: An exciting two week Adventure program for visually impaired campers, ages 15-18. The 11 day physically demanding session includes 6 days of backpacking and canoeing.

## SAMPLE DAILY CAMP SCHEDULE

6:30	Reveille for counselors
7:00	Reveille for campers
7:35	Flag raising
7:45	Breakfast
8:30	Camp kapers
9:00	Camp activities
10:15	Camp activities
11:30	Wash-up
12:00	Lunch
1:00	Rest period
2:30	Snack break
2:45	Camp activities
4:00	Camp activities
5:30	Wash-up
5:45	Supper
6:45	Flag lowering
7:00	Camper activities/special programs
8:30	Wash-up
9:30	Taps and lights out
11:00	Staff: lights out/quiet

Wednesdays at 6:00 p.m.: All-Camp Picnic



## PROGRAM

Summer camp program activities start at 9:00 a.m. after unit clean up (Camp Kapers). Instructors are available for arts and crafts, recreation, campcrafts, nature study and waterfront experiences. Activity options are presented by the instructors to meet the interest and individual needs of the campers or groups of campers.

Arts and Crafts: focuses on campers learning to make creative and useful articles out of various materials found in nature. Plaster sand casting along the beach is fun.

Recreation: an area where campers work and play together to develop skills and good sportsmanship. It is a time for them to have fun and to develop strength and confidence in movement, and through the knowledge they can be successful while involved in recreation activity. The obstacle course is a popular place and helps to develop many motor skills. New games, group problem solving, action tasks.

Waterfront: includes swimming, canoeing, boating, sailing, paddle boats learning and practicing water safety, rowing, fishing. Counselors accompany their campers to the waterfront and assist the waterfront director in instruction and safety procedures.

Camp Crafts: Emphasis is placed on the happiness of living and working together in the out-of-doors. Overnights and cookouts provide campers

opportunities to experience and learn by doing. Reading a braille compass can become recreation when orienteering. Nature Study: The program is planned to offer the campers opportunities to enjoy and become aware of the beauty and wonders of nature. Time to discover the song of the birds, the marvel of rain, the growth of a seed, the touch of a frog. Time to develop kinship with the out-of-doors. Time to observe the beauty of nature with curiosity and appreciation.

The campers sleep in two person tents, set up in three units. Eight campers and two counselors are assigned to each unit. Counselors assigned to sign with deaf/blind youngsters enable the child to participate in group activities. During the school year classroom teachers attend camp with their students which allows the students Individualized Educational Plan to be taken into the outdoors.

Summer Session IV is a two week adventure program for campers who are 15-18 years of age. Preparation for the adventure week includes an in-service for campers and staff. Twenty-four campers and eighteen staff members take part in the "Adventure Week." "Exploring 80" the adventure group canoed and hiked in the Newago area. Circling Flanigan's Lake 3 times in canoes is a ceremonial beginning for the Adventure trip, begun in 1979. Campers and staff canoed through the channel on to Morley, to the Little Muskegan, portaged at Croton Dam and continued on the Big Muskegan to Newago. During the week they canoed 70 miles and spent many hours backpacking and setting up camps. Streams frequently provided a refreshing swim at the end of the day.

Evening programs and special events are planned and organized by the program staff, counselors and campers. The variety and scope of these programs is limited only by our lack of imagination. These programs may include a camp fair, water carnival, sponge throws, square dance, nature sculpting, Christmas in July, a jungle breakfast, camp birthday party, olympic day, dances, outdoor theater, pioneer day, backwards day and artist fair.

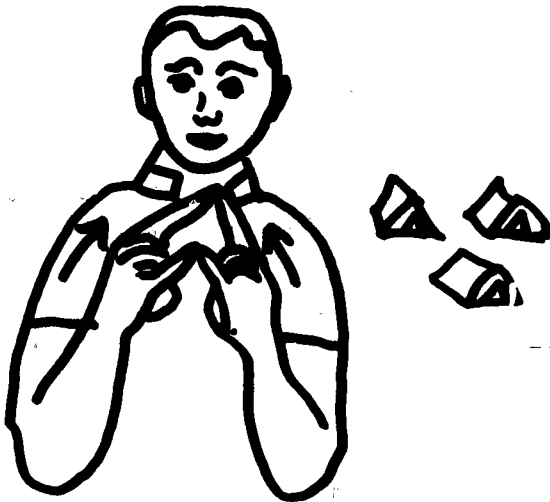
A council ring ceremony is planned by the program staff for the final night of a session and special recognition is received by each camper. Chief Tuhsmehta presents an award to the camping braves.

A singing camp is a happy camp and one finds many opportunities for singing at Camp Tuhsmehta.

After every meal there is singing and always around a campfire in the evening. "Exploring 80" campers finished their summer camp experience by singing around the campfire together and followed that with a campers suggestion of a big group hug. The energy of hugging and being hugged by 42 camp friends is beautiful! Campers returned to their tents and softly sang long into the night, the camp song. . Ooo I want to linger, Ooo a little longer, Ooo a little longer with you my friend. Time to sing, time to listen to night sounds outside your tent. All is well. There's alot of love to be learned at camp. "Love is the eternal thing which man can already on earth possess as it really is," Albert Schweitzer, For all that Lives.



Donna Grantham bags feed for animals.

CAMP SIGNS

CAMP  
LITTLE AND INDEX FINGERS  
TOUCH TWICE



SIGNS  
PALM OUT, INDEXES CIRCLE  
ALTERNATELY AND VERTICALLY

TENT  
V-FINGERTIPS TOUCH,  
SEPARATE SIDWAYS AND DOWN



FIRE  
WAVING FINGERS RISE AND  
FALL ALTERNATELY

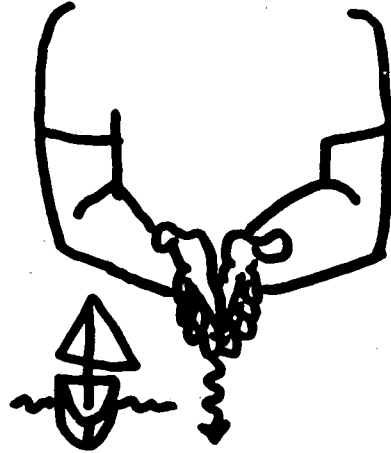
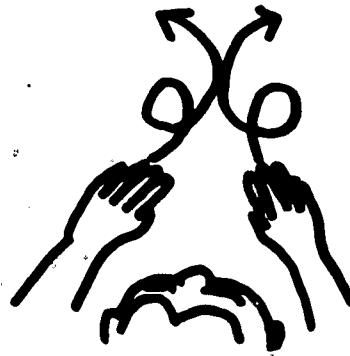


PLAY

SHAKE Y HANDS

BOAT

FLAT HANDS JOINED AT LITTLE FINGERS, MOVE FORWARD IN WAVY UP AND DOWN MOTION

FISHFLUTTER HAND FORWARD  
LIKE SWIMMINGSWIMPALMS DOWN, BREAST STROKE FORWARD  
OR NATURAL GESTURE FOR CRAWL STROKESWINGBENT V SITS ON INDEX AND  
SWINGS FORWARD AND BACKSAILSIDE OF 3 ON FLAT PALM; BOTH  
HANDS MOVE FORWARD IN SLIGHT  
UP AND DOWN MOTION

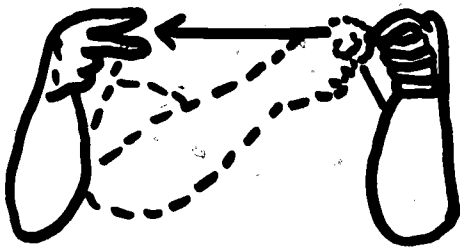
GAMES  
WAVE "G" HANDS (SEE PLAY)



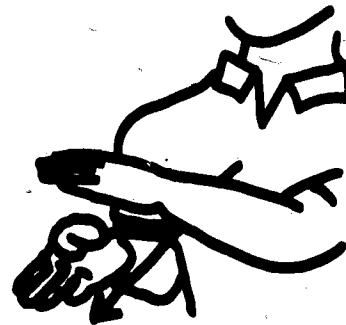
ART  
FINGERTIP OF "I" DRAWS WAVY LINE ON PALM



ARROW  
PULL BOWSTRING BACK TO RIGHT "V"



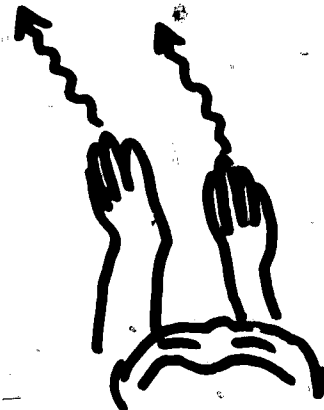
BAKE  
RIGHT "B" SLIDES UNDER LEFT HAND



BASEBALL  
SWING BAT



BEACH  
PALM-DOWN B'S RIPPLE FORWARD LEFT



**BIKE**

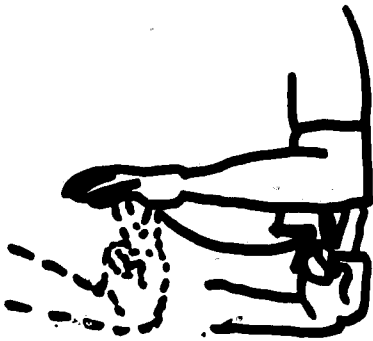
PEDAL PALM-DOWN "S" HANDS

**BLANKET**

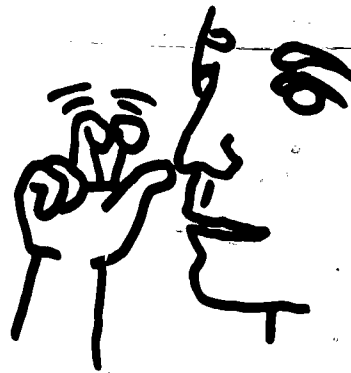
ARM SWEEPS ACROSS LEFT ARM TO SHOULDER NEAR NECK

**BRIDGE**

FINGERTIPS OF "V" TOUCH PALM AND ARC TO TOUCH ARM NEAR ELBOW

**BUG**

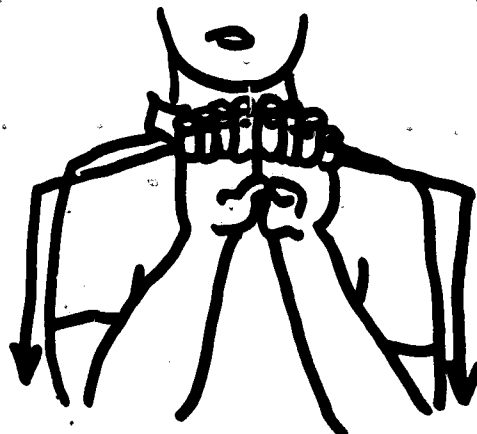
WIGGLE FIRST TWO FINGERS; THUMB ON NOSE

**BUTTERFLY**

HOOK THUMBS FLUTTER HANDS

**CABIN**

DRAW ROOF AND SIDES WITH PALM-OUT C'S





CLAY

SQUEEZE CLAY, RIGHT HAND ABOVE LEFT

CLEAN

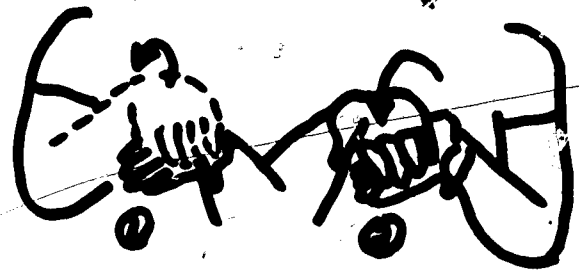
RIGHT PALM BRUSHES OFF LEFT PALM ONCE

CLIMB

PALM-OUT BENT-V'S, CLIMB ALTERNATELY

COOK

FLIP RIGHT HAND FROM PALM-DOWN TO PALM-UP

CROQUET

BEND OVER, STRIKE BALL TO LEFT WITH INVISIBLE Mallet

DIVE

DIVE WITH HANDS TOGETHER



DOCK

"D" OUTLINES LEFT PALM-DOWN ARM, STARTING ON OUTSIDE



FLOWER

FLAT O AT RIGHT OF NOSE, THEN LEFT



HOT DOG

PULL S AND C ALTERNATELY OUT OF "F"



GRASS

FINGERS OF PALM-UP RIGHT HAND MOVE UP THROUGH FINGERS OF LEFT



HAMBURGER

CLASP HANDS (MAKE A PATTY)



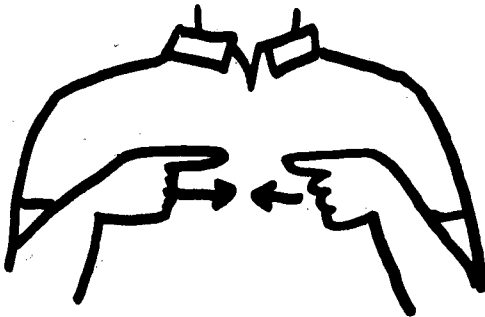
HELP

PALM LIFTS BOTTOM OF "S"



**HURT**

PALM-IN INDEX FINGERS JERK  
TOWARDS EACH OTHER TWICE



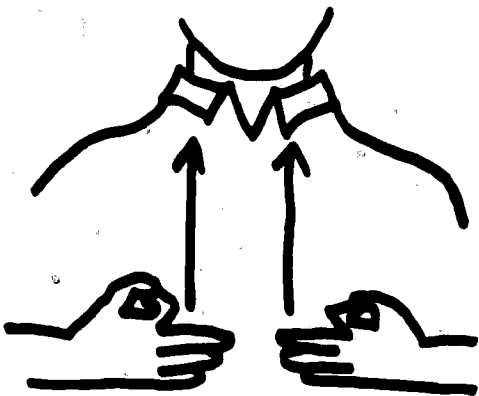
**LAKE**

PALM-DOWN L THUMBS CIRCLE  
OUTWARD SHAKING, TOUCH AGAIN



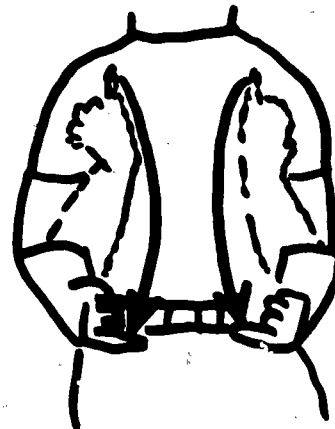
**LIFE**

PALM-IN 9-HANDS MOVE UP BODY



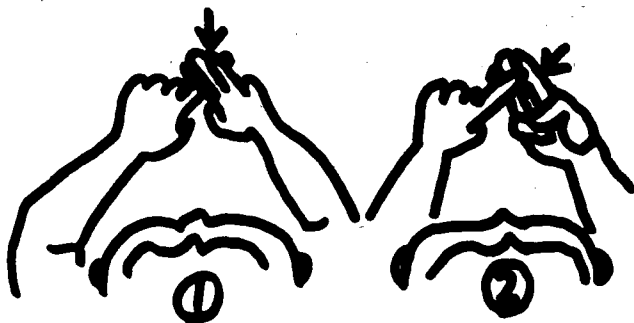
**JACKET**

PALM-IN I-FINGERTIPS DRAW  
LAPELS ON CHEST



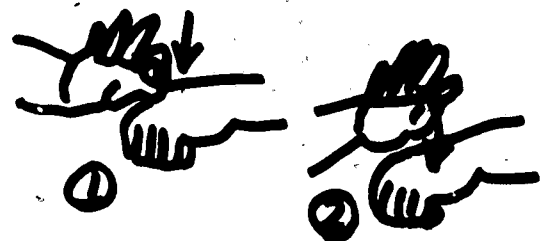
**MARSHMALLOW**

M-HAND TAPS TOP OF HORIZONTAL  
INDEX, THEN BOTTOM



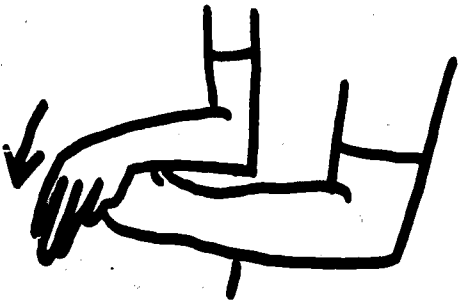
**MOSQUITO**

TOUCH 9 TO BACK OF HAND; SLAP HAND

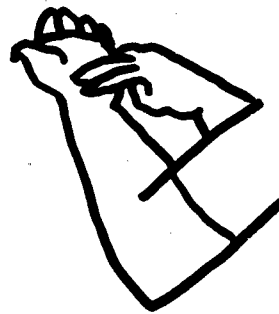
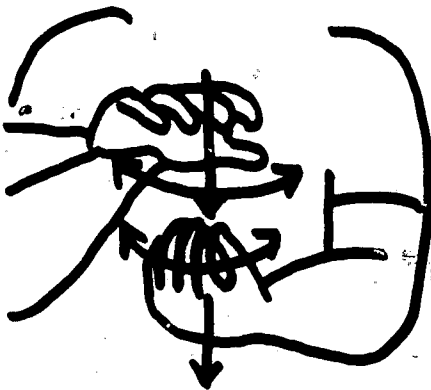


NIGHT

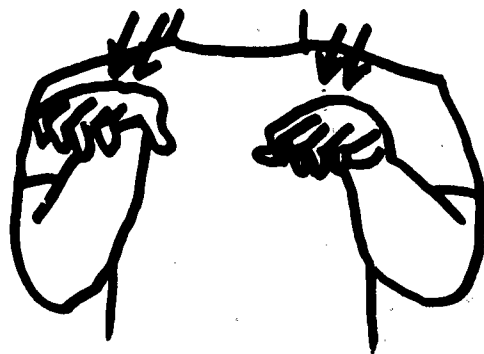
DROP BENT HAND OVER EDGE OF LEFT

NURSE

TAP PULSE WITH N FINGERTIPS TWICE

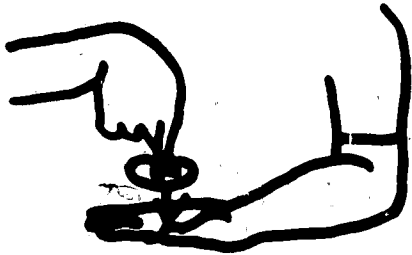
PARACHUTEPALM-UP O UNDER OPEN HAND,  
SWING TOGETHER DOWNWARDSPICNICPALM-IN P'S CIRCLE UP TOWARDS  
MOUTH ALTERNATELYPOP

PUT 9 INSIDE S, THEN SLAP S

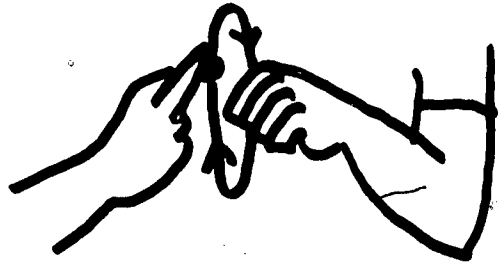
RAINDROP PALM-DOWN CLAW HANDS  
SHARPLY TWICE

**RECORD**

TIP OF R CIRCLES ABOVE, DROPS ON PALM

**REEL**

CIRCLE R AROUND S

**RUN**

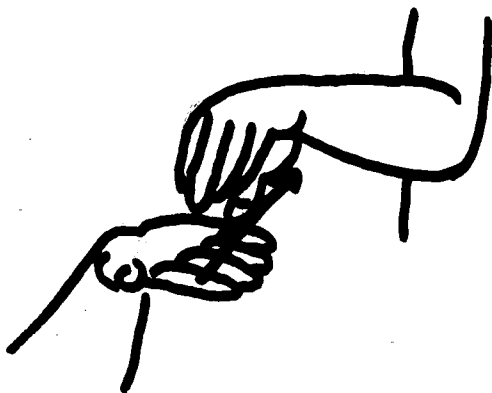
PALM-DOWN "L" THUMBTIPS TOUCH; HANDS MOVE FORWARD, INDEX FINGERS FLICKING IN AND OUT RAPIDLY

**SAND**

RUB THUMBS BACK AND FORTH ACROSS BACKS OF FINGERS

**SANDWICH**

INSERT "FILLING-HAND" BETWEEN THUMB AND FINGERS

**SHOWER**

JERK HAND TOWARD AND AWAY FROM HEAD, FINGERS REMAINING CURVED



SICK

MIDDLE FINGERS TOUCH FOREHEAD  
AND STOMACH

SLEEP

5 HAND DROPS TO FLAT "O"

SLIDE

RIGHT PALM-DOWN SLIDES DOWN AND  
OVER BACK OF LEFT

SQUIRREL

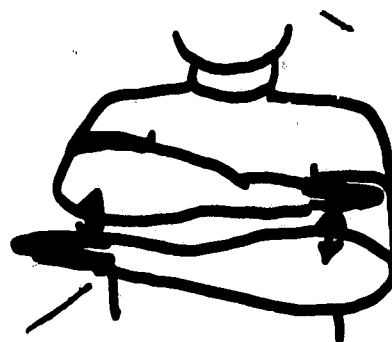
TAP BENT FINGERTIPS TOGETHER  
TWICE, PALMS TOGETHER

SUN

C AT TEMPLE AND UP TO SIDE

TABLE

RIGHT PALM AND ELBOW BOUNCE ON  
LEFT ARM





TREE

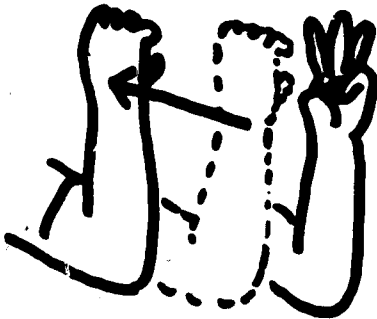
ELBOW ON BACK OF HAND; SHAKE 5

VOLLEYBALL

PUSH UP BALL SEVERAL TIMES

WAGON

RIGHT C BEHIND LEFT W, RIGHT MOVES BACK

WOOD

ELBOW OF W ON BACK OF LEFT HAND; TWIST W SLIGHTLY SIDE-TO-SIDE

LEAVES

WRIST OF 5 ON INDEX; WAVE 5 SIDE-TO-SIDE

STICK

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INCLUDING CHILDREN WITH DISABILITIES IN OUTDOOR  
EDUCATION AND CAMPING PROGRAMS

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Mainstreaming or the inclusion of children with disabilities in regular youth programs has become a common occurrence or practice in programming during the late 1970's and the emerging 1980's. This has been noted as a significant trend in youth programming as indicated by national, state and local thrusts by national youth organizations, special schools and centers, and those engaged in the delivery of recreational services.

Not to be excluded in this movement have been those programs dealing with outdoor education, camping, outdoor recreation, adventure programs, and environmental education. Programs in the outdoors seem to have special meaning and significance in bringing children with disabilities together in common experiences with their non-disabled peers. Perhaps this is, in part, due to characteristics of programs in the outdoors that foster elements of cooperation, challenge, success experiences, individual and group goal attainment, communication and highly stimulating environments for personal development.

To more effectively maximize the positive aspects of integrated programs involving children with disabilities it is imperative that youth program administrators, supporters, staff, leaders, volunteers, and in select instances, parents be involved in preparatory training/staff development programs. Readiness levels of these people must be of significant heights to assure continuity of purpose towards successful experiences by all people involved in the integrative experiences in the outdoors.

What might be included in the content of a readiness thrust in training and staff development? Although the needs of personnel will vary slightly, from one situation to another, the following topics might be considered for the training program:

- \*orientation to mainstreaming, normalization and integrative concepts
- \*readiness of the staff, peer group, and disabled children disability
- \*awareness and sensitivity issues associated with disability
- \*attitudes and accomodation associated with disability
- \*physical accessibility needs of individuals with disabilities
- \*program accessibility needs of individuals with disabilities
- \*programmatic strategies of inclusion of children with disabilities
- \*transportation and mobility issues
- \*resource identification, retrieval, and utilization
- \*safety and medical considerations
- \*matching activities with participant needs
- \*grouping and supportive strategies
- \*activity teaching technique modifications and special considerations
- \*program evaluation and feedback plan

Program staff may develop their own training programs utilizing existing staff. There may also be an opportunity to involve outside specialists, parents, recreationists, teachers, and other resource persons in the community who are experts in working with children with disabilities. It may also be pointed out that resource materials such as training modules, printed resource materials, and audio-visual products are also available

from a number of local, state and national resources that will be extremely helpful to training efforts.

Below is an example of a training module which was developed by the Dean's Grant Project, College of Public and Community Services, University of Missouri/Columbia. This type of training aid may be used in actually planning a training/staff development program or as a specific training session. It may be initiated simply by reading the module and implemented as directed.

### SAMPLE TRAINING MODULE

I. Title of Session: Personnel Preparation Needs in Including Handicapped Youngsters in Regular Outdoor Recreation and Camping Programs

II. Type of Session: Group Problem Solving, Brainstorming, and Discussion

III. Purpose of Module:

-To focus on considerations associated with including handicapped youngsters in regular outdoor recreation and camping programs

-To identify personnel training needs associated with participation of handicapped youngsters in regular outdoor recreation and camping programs

-To determine how personnel training needs may be met

-To identify and establish what resources may be utilized to meet personnel training needs that have been identified

IV. Suggested Setting:

A. Group size-Participants should be divided into small group clusters of 5-10 persons per sub-group

B. Mix of participants-Arrange as diverse sub-group as feasible. A heterogenous grouping will usually provide a broader scope of responses and ideas

C. Group arrangement-Arrange groups in small circle or around a table

V. Time Required: 45 minutes to 1 hr.

VI. Session Procedures:

A. Leader introduces session and explains its purpose (See Purpose Module)

B. Workshop participants are divided into groups of 5-10 people per group

C. A sub-group leader is identified by the sub-groups

D. A recorder is identified by the sub-group

E. Each participant is given a worksheet to jot down personal and sub-group ideas that are expressed

F. Each sub-group is given the task of:

1- Brainstorming the most significant personnel training needs that exist in involving handicapped youngsters in regular outdoor recreation and camping programs. Clarification of any brainstormed ideas should follow with a discussion of each item addressed (15 minutes).

2- Brainstorming what resources may be utilized in meeting the needs. Clarification of any of the brainstormed ideas should follow with a discussion of each item addressed (15 minutes).

3- Brainstorming how the personnel training needs may be met. Clarification of any of the brainstormed ideas should follow with a discussion of each item addressed (15 minutes).

VII. Expected Outcomes:

-Increased participant awareness of personnel training needs needed in involving handicapped youngsters in regular outdoor recreation and camping programs.

- Increased awareness of how personnel training needs may be met.
- Increased knowledge of what resources may be utilized in meeting personnel training needs.

VIII. Session Supplemental Equipment,  
Materials & Supplies:

- 1 worksheet and training module format per person
- 1 pencil per person
- flip chart and/or newsprint per sub-group are optional



SAMPLE TRAINING MODULEWORKSHEET

1. Most Significant Personnel Training Needs in Involving Handicapped Youngsters In Regular Outdoor Recreation and Camping Programs?	2. What Resources May Be Utilized In Meeting Training Needs?	3. How May Training Needs Be Met?

EVALUATION OF THE 1981 INSTITUTE  
ON INNOVATIONS IN CAMPING AND OUTDOOR EDUCATION  
WITH PERSONS WHO ARE DISABLED

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**INTRODUCTION.** The 1981 Institute on Innovations in Camping and Outdoor Education with Persons who are Disabled was held May 15-17, 1981 at Bradford Woods, Martinsville, Indiana. The 1981 Institute was the second such yearly conference to be held at Bradford Woods. The Institute was sponsored by Bradford Woods, Indiana University, in cooperation with Project TORCH, a U. S. Office of Special Education Inservice Training Project. In addition, the Institute was officially endorsed by the National Therapeutic Recreation Society, a branch of the National Recreation and Park Association. Participants received two continuing education credits from Indiana University and were presented with a certificate of participation at the completion of the Institute.

**THE EVALUATION PROCESS.** To increase the likelihood of gathering pertinent information about several different aspects of the 1981 Institute, five methods of evaluation were utilized for data collection. Through these five methods, it was felt that a more diverse and yet more comprehensive examination could be made.

The first type of evaluation method was the Session Evaluation. (1) Audience participants were asked to complete information relating to presentation style and relevancy of session information. Institute assistants were asked to complete Participant Observer Evaluations. (2) These forms considered environmental factors, presentation style, and

perceived audience satisfaction. The third evaluation form was completed by the Presenters of the sessions and duplicated questions found on the Participant Observer Evaluation. (3) The information gathered from these three forms was sent to the presenters for qualitative feedback.

Bradford Woods personnel were requested to complete an Administrator Evaluation (4) that pinpointed problems which next year's coordinators should take into consideration. The fifth form of evaluation was the Institute Summary (5) that examined the participants' level of satisfaction with the educational sessions in general, the facilities and accommodations, and the management. The overall evaluation was also used to gather demographic data about the participants.

**PURPOSE OF THE EVALUATION.** The main purpose of the evaluation of the 1981 Institute was to supply Institute personnel with information regarding the levels of success and participant satisfaction of this conference, in order to continually upgrade the levels of success and participant satisfaction at future Institutes. It was felt that the five above mentioned methods of evaluation accomplished this purpose.

**DEMOGRAPHIC DATA.** The overall summary evaluation revealed that 61% of the participants were female. The largest age group (34%) was between the ages of 21-25, with 74% being

between the ages of 21 and 35. Participants were attending from fifteen states, 27% were from Illinois. The largest percentage by occupation were students (24%), followed by therapists (20%), educators (14%), and administrators (11%). Persons in their present occupations from 0 to 1 years represented 29% of the participants: That figure was closely followed by 1-2 years at 26%, 3-4 years at 22%, and 5-6 years at 13%. One third of the respondents were from universities and 22% were from camp settings. Participants were interested in the following disability groups: mentally retarded (38%); mentally ill (23%); non-disabled (18%); and orthopedically disabled (17%). The largest percentage (57%) of the respondents had completed a bachelor's degree and 24% had completed a master's degree. Ninety persons responded to the overall evaluation representing 70% of the total participants.

## RESULTS

**ADVANCE MAILING.** The majority (74%) of the respondents were satisfied with the advance mailing. Of those who were dissatisfied lack of information and not enough lead time were most often mentioned.

**REGISTRATION.** Seventy-six (76%) percent of the respondents were favorable towards the current registration procedure. Suggested areas of improvement included more organization and provision of a breakdown of the Institute costs.

**LODGING.** Favorable responses toward lodging came from 79% of the respondents. Availability and cleanliness were two areas of concern.

**MEALS.** All respondents (100%) were pleased with the meals, especially favorable toward the continuation of the "famous Buffalo Tro".

**EDUCATIONAL SESSIONS.** Educational sessions received equal amounts of positive and negative comments. One area for suggested improvements centered around the need for more topics related to special populations other than the physically disabled. Another priority recommended was that more experiential sessions be held, with those sessions allowed more time than the lecture-type sessions.

**SPEAKERS.** Ninety-one percent (91%) of the respondents gave favorable comments on the selected speakers. The audience felt that, generally, speakers were knowledgeable with lots of first-hand experience.

**LEISURE ACTIVITIES.** The leisure activities planned by the Institute staff received 78% positive response. Suggestions included less structure and more diverse activities.

**RESOURCE ROOM.** Approximately half (49%) of the replies were positive toward the resource room. Recommendations included greater visibility, a larger room, larger amount and wider variety of resources, and the inclusion of American Camping Association materials.

**AUDIOVISUALS.** The planned session of audiovisuals received positive comments from 65% of the respondents. The elimination of conflicts and proper working conditions of the equipment were two areas of concern.

**THE FUTURE.** Eighteen percent (18%) of the 1981 participants attended last year's Institute. A large majority (86%) said they would be interested in attending a similar Institute next year. Twenty-one percent of the participants purchased the 1980 Bradford Papers (conference proceedings) and 57% said they would be interested in

purchasing the 1981 Bradford Papers. Participants learned about the conference from other professionals (36%), mailings (30%), and other, e.g. college bulletin boards (17%).

**SUMMARY.** From the five methods of evaluation with which data was collected, it can be safely inferred that the 1981 Institute was very successful. Participants gained information and materials that can be utilized in their place of employment. The Institute was useful for both gaining new information and reaffirming methods that they currently practice. It can be surmised that with the great amount of interest and satisfaction, similar Institutes will be well received by the profession in future years.

## 1981 INSTITUTE STAFF

INSTITUTE DIRECTOR: GARY M. ROBB

INSTITUTE COORDINATORS: BONNIE KU & MARK HAVENS

INSTITUTE SECRETARY: VICKIE W. ROBB

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### BRADFORD WOODS OUTDOOR EDUCATION, RECREATION AND CAMPING CENTER STAFF:

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TOM BARHAM, COORDINATOR OF OUTDOOR EDUCATION PROGRAMS  
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