How do we estimate personal growth? What do experiential education programs accomplish? Personal growth in the affective domain often is fostered through experiential education programs, but it is difficult to measure the relationship between the two. One manner of measurement is the observation of external actions by a student that demonstrate what personal, internal growth is taking place. This observation can yield an accurate, sensitive estimate of personal growth. It requires, however, clear definition of program goals and student observable behavior. This paper explores this manner of measurement by discussing the necessity for objectives, describing the affective domain, and discussing the utilization of behavioral indicators to make affective objectives workable. Six program descriptions are included as examples of the combination of affective measurable objectives with the field of experiential education. Illustrating what is possible and being developed in the field of experiential education, the examples include the necessary behavioral indicators, which guide the teacher-observer in the recognizing and categorizing student change. The programs cover: involvement in the local community; living within a new community environment; outdoor activities for spring, summer, fall, and winter; and outdoor pursuits for mentally retarded and for "disaffected" students. (Author/MQ)
TOWARD DEFINING MEASURABLE OBJECTIVES

in the affective domain

for experiential education programs
TOWARD DEFINING
MEASURABLE OBJECTIVES

in the affective domain
for experiential education
programs

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1975
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ABSTRACT

How do we estimate personal growth?

What do experiential education programs accomplish?

Personal growth (affective domain) often is fostered through experiential education programs, but it is difficult to measure the relationship between the two.

This paper explores one manner of measurement: the observation of external actions by a student that demonstrate what personal, internal growth is taking place.

This observation can yield an accurate, sensitive estimate of personal growth. It requires, however, clear definition of program goals and student observable behavior. This paper contains examples of goals and behaviors defined by teachers for their own current experiential education programs.
This monograph grew out of the Workshop on the Development of Measurable Objectives in the Affective Domain, sponsored by the Colorado OUTWARD BOUND School.

To encourage experiential education programs, to define the usefulness of such programs, and to support information exchange in this field.

Workshop Resources:

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workshop participant list
follows text of monograph
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INTRODUCTION

RATIONALE and DEFINITION of affective objectives:
Bob McKean: the necessity for objectives
Bob Taylor: description of the affective domain
Stan Ratliff: behavioral indicators

EXPERIENTIAL PROGRAMS: project description, objectives, and behavioral indicators
(from among the many excellent programs designed by teachers at the Workshop, the following were chosen to serve as examples of the different categories of experiential education programs)

--involvement in local community:
  Community Apprenticeship Program,
  Open Living School
  Jefferson County

--living within new community environment:
  farm live-in
  Mitchell High School Senior Seminar
  Colorado Springs

--outdoors activity (winter):
  cross-country ski program
  Centennial Junior High
  Boulder

--outdoors activity (spring, fall, summer):
  canoeing
  Greeley Public Schools

--program for "disaffected" students:
  School Within a School
  Mitchell High School
  Colorado Springs

--outdoor pursuits for mentally retarded:
  AVATRAC
  Denver

WORKSHOP PARTICIPANT LIST: Colorado Teachers
INTRODUCTION

The Workshop on the Development of Measurable Objectives in the Affective Domain dealt with the problem of assessing student growth on emotional levels (such as feelings of self-worth, ability to cooperate with others) as this growth occurs in experiential education programs.

Those involved with experiential education recognize that thorough measurement of a student's emotional growth is a long process. The workshop stressed the beginning and foundation of this measurement process:

--- defining what growth was to be fostered

--- determining what action/behavior by the student the teacher could observe that might indicate that this growth was occurring

As the product of the workshop, the participants wrote descriptions of their experiential programs, and included the objectives for these programs and the behavioral indicators necessary for the assessment of the objectives.
The following example is taken from Roger Schoensteins report on the program at North Junior High School in Colorado Springs. The objective is one that is integral to many experiential programs. The behavioral indicators give evidence (to the teacher or observer) that such an objective is being met.

OBJECTIVE: Students will demonstrate a problem-solving approach to tasks.
Behavioral indicators: (as evidenced by)
--searching for solutions from within the group, and not from the instructor
--arriving at a group-solution to a problem
--deciding upon a number of varied solutions to a problem

The behavioral indicators specify what the action of the student will be. Specifying the behavior helps both the student and the teacher understand and improve the learning process. The student can receive feedback or evaluate himself in relation to these behavioral indicators. And for the teacher, the observation process is clarified. The action is described in words that are non-ambiguous and non-value-laden.

This systematic approach to observation of student activity enlarges the scope and accuracy of teachers as observers. It legitimizes the results of the observations, thereby increasing the teacher's ability to assess needs, monitor growth, and evaluate the program.
WHY OBJECTIVES?

One of the first questions one might ask is "what is so great about objectives anyway?" Especially measurable--affective objectives? Some teachers have taught for years without a set of neat, well formulated instructional objectives; yet, somehow, this seat-of-the-pants approach leaves something to be desired.

1. Objectives provide a JUSTIFICATION for the lesson.

If the measurable objectives are really important, then the teacher and the pupil time and effort are important, and the lesson appears to be worth doing. The question of importance has to do with what matters to the student at his stage of development, what society values, what the role of the school is as one of several educative agencies, what is legitimate to the curricular areas, and the like.

2. Objectives are central to teacher PLANNING.

Objectives suggest--indicate--determine the materials to be used, the instructional methods to be employed, and the management of the setting for teaching and learning. Thus, the vital instructional decisions lean heavily on the stated objectives.

3. Objectives are the first step in EVALUATION.

There is really no other way to assess the worth of a lesson except in relation to instructional objectives. The teacher wants to know whether the objectives were realized or not, or to what degree they were achieved.
Of course, it is possible to state objectives in such a way as to defy appraisal. But, measurable objectives will imply appropriate evaluation means.

4. Objectives help COMMUNICATE.

If you are developing a new program (and most experiential educators have a next one in mind at all times—this is standard equipment, it seems, to go along with a compass, a canteen, and other survival gear) you know that objectives are really essential in convincing administration/parents/school board of the benefits of this new program. Objectives also help students and teachers to understand the program.

WHAT IS AN OBJECTIVE ANYWAY?

Mager says that an objective "describes a desired outcome" of instruction. "An objective tells what the learner is to be like as a result of the learning experience."

Every functional objective has at least three characteristics:

1. The objective is stated in student terms.

For instance, consider this objective from a program in operation now: "the instruction will promote student group work toward the solution of a local environmental problem". This specifies teacher, not student, actions.

2. The objective communicates instructional intent.

The objective clearly lets others know what you had in mind. It suggests what experience is needed to accomplish the outcome, and what change in the student is desired as a result of this experience.
"the student will be exposed to the glories of the American wilderness". What does it mean to expose someone? What will happen if we do? Will he catch something? If so, what? This just does not communicate.

3. The objective indicates the evaluative process.

"as a result of this course the student will appreciate fine art". Instead we might say that "the student will be open to new experiences in art" or "will welcome new experiences in art". These latter examples give us an evaluation indicator; it is clear what we are to look for.

THREE BASIC QUESTIONS

We have three questions to ask ourselves in regard to our objectives:

(a) Does it indicate what student outcome will be?

(b) Does it clearly communicate what the teacher has in mind?

(c) Does it suggest how it may be evaluated?

SOME TERMS TO AVOID:

Some verbs may be descriptors of pleasant concepts, but are to be avoided in measurable objectives because they are vague and therefore quite difficult to assess.

Verbs such as "enjoy", "appreciate", "gain faith", "understand", "like", "know" and "grasp" are too inexact to be included in measurable objectives.
The affective domain is concerned with the emotions of the learner—how he feels about what he is learning and what he is learning to do with his feelings. The emphasis is on a feeling, a tone, an emotion, or a degree of acceptance or rejection.

Krathwhol et al (1964) divided the affective domain into several levels. While these levels overlap and seldom occur in isolation, a summary of the taxonomy is given here.

Level One, Receiving—the affective continuum begins with the learner's merely receiving stimuli and passively attending to it, and it extends through the learner more actively attending to it.

Level Two, Responding—the learner responds to a stimuli or request, willingly responds to these stimuli and takes satisfaction in this response.

Level Three, Valuing—the learner voluntarily responds and seeks out ways to respond in ways sufficiently consistent and stable to have taken on the characteristics of a belief or attitude.

Level Four, Organization—learner internalizes values, encounters situations in which more than one value is relevant; hence, he must organize values into a system, determine the interrelationships among values, and establish the dominant and pervasive ones.

Level Five, Value or Value Complex—the learner acts consistently in accordance with the values he has internalized, indicates an integration of these beliefs, ideas, and attitudes into a local philosophy or view.

In reviewing the affective taxonomy, it is evident that by taking any ordinary test of cognitive achievement, a learner is engaged in the act of receiving along with the act of responding.
The real issue in writing affective measurable objectives is not with the lower levels of the taxonomy, but rather with the higher ones of satisfaction in response and valuing.

How do you write measurable objectives in the affective domain? Here are two examples of objectives of this nature which include criterion for minimum acceptable performance.

I. The learner is concerned for the welfare and dignity of others and demonstrates this by treating all individuals with respect.

II. The learner is concerned with effective civic action and demonstrates this by actively working for community improvement.

Both of the illustrations include specific criterion identifying visible activity by the learner. In writing an affective instructional objective, the criterion must be included.

What are some of the areas in which students and teachers are involved with affective measurable objectives? The following list, taken from Wight and Doxey (Interstate Educational Resource Service Center), illustrates some of these areas. This is by no means a summary of all the possibilities, but it is included to serve as a glossary of terms and an invitation to expand the list with one's own imagination.


II. Locus of Control: self-direction, independence, power, self-reliance, initiative, autonomy, self-control, self-discipline.

III. Personal Organizing Systems: personal values, ethics, standards, morals, beliefs, constructs, principles, philosophy, style of life, philosophy of existence.
IV. Personal Adjustment, Achievement, Interest, and Expression:

A. Creativity—valuing and recognizing creativity as a basic human need; willingness to risk failure, to innovate.

B. Coping with Change, Adversity, Ambiguity, and Uncertainty—functioning in a rapidly changing world, dealing with new situations and problems, adjusting to changing jobs and job requirements.


V. Personal Skills and Abilities:

A. Perception and Awareness—perceptual awareness, sensitivity and accuracy.

B. Learning—passion for knowledge and pleasure in knowing, positive attitude toward learning: curiosity, an inquiring mind; motivation to learn, independence in seeking and using knowledge; ability and desire to use the learning resources of the community; acceptance of learning as a life-long process of self-development.

C. Problem Solving and Decision Making—developing skills in problem-solving processes, securing information, analyzing, synthesizing, evaluating, drawing conclusions, and making decisions; interest in current problems, weighing alternatives for their solution.

D. Goal Setting and Goal Seeking—selection of meaningful and satisfying goals; selection and mastery of means for achieving chosen goals; setting personal goals based on understanding of abilities, interests, values, and limitations.

E. Communication—competence in communicating feelings, ideas and information through speaking, listening, reading, and writing.
STAN RATLIFF

Behavioral Indicators:
An Approach To Making Affective Objectives Workable

Making Behavioral Indicators Work For You

The affective domain - the world of feelings, attitudes, values, emotions, likes, dislikes - almost defies quantifying. Any attempt to measure a student's values is necessarily subjective and therefore fraught with the possibility of distortion because of the values held by the teacher. In spite of the hazards, more and more serious students of curriculum development are recognizing the importance of developing and using affective objectives.

Let's take the example of trying to measure the objective of respect for others. Ideally, a team of teachers, perhaps social studies, English, science would brainstorm to identify students they know who seem especially respectful of others. They would then ask themselves what it is about John or Mary that makes them stand out as having an awareness of others. At the outset the teacher would reject such activities as successfully completing teacher directed tasks, since motivation for good grades often distorts values held by students. Instead, the teachers would identify voluntary behaviors, i.e. when John is in a group he listens carefully to what others have to say - Mary never interrupts - John nods his head and gives good body messages when someone is talking - Mary voluntarily sent a get well card to the new girl in the class - etc. etc., the list would grow to 15 or 20 behavioral indicators. At this point the teachers would put their objective together:
Students in the English-Social Studies-Science Block will show
growth in developing respect for others as indicated by:

1. In a group situation, listens carefully when
   another person is talking.

2. Avoids the temptation to interrupt when someone
   else has the floor.

3. Physically shows interest in what others have to
   say by using positive body language (eye fixation,
   body pointing, positive gestures).

4. Voluntarily lets people who have been sick know
   they have been missed ("nice to have you back!", a
   get well card, an embrace).

   - and the list goes on.

The advantage of this approach is that teachers attempting to
measure this particular objective would have studied the list of
indicators and therefore would know the behaviors to be looking for.
Recent studies of human behavior tell us we tend to see what we are
looking for - thus we have the teachers in a positive situation,
actually looking for indicators of respect for others. Teachers
will doubtless pick up on much "respect-for-others activities"
that had gone unnoticed earlier.

It can be argued that many of the positive indicators existed
prior to the class - therefore no actual growth took place. The
viewpoint here is that laborious pre-post test activities in the
affective domain are not only questionable but actually do violence
to the positive feelings that may exist. Therefore the fact that
the teacher did, in fact, observe John hold a door open for a per-
son with an armful of books - may be all the evidence needed to be
able to say growth in respect for others is taking place.
SETTING THE SCENE FOR MAKING AFFECTIVE OBJECTIVES WORKABLE

According to Dr. James Popham (University of California at Los Angeles) we can expect much more mileage from efforts to develop and use affective objectives if appropriate instructional tactics are used. For the purposes of this paper we shall emphasize three approaches: (1) Modeling (2) Contiguity and (3) Reinforcement.

MODELING-

Modeling behavior simply means the teacher practices what she preaches. A secondary Reading or English teacher would be practicing modeling behavior if she told her classes, with considerable enthusiasm, about the novel she was reading over the weekend. In order to maximize the impact of modeling behavior the teacher should plan for it to happen, and use prestigious models that are easy for students to imitate.

CONTIGUITY-

Contiguity tactics involve arranging positive conditions in the learning environment so that they will be associated by the learner with the affective behavior sought. If the teacher identified respect for others as an affective objective, having the classroom arranged with the chairs clustered for small group discussions would be an example of the teacher’s awareness of the importance of contiguity. Creation of interest centers with carpeting, large pillows and interesting reading material would be contiguous with developing a positive attitude toward reading.
Reinforcement involves the use of positive stimuli or the removal of aversive stimuli after the student engages in a desired behavior. For example, an elementary teacher working on the 'respect for others' objective, might send a note of commendation home to a child's parents when she observed one of the listed behavioral indicators. More often, a warm pat on the shoulder, a friendly embrace or a gentle squeeze of the arm is all it takes to reinforce the desired behavior.

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The following six program descriptions are examples of the combination of affective measurable objectives with the field of experiential education. The examples include the necessary behavioral indicators, which guide the teacher-observer in recognizing and categorizing student change.

These were chosen as examples of the types of programs discussed at the Workshop. They serve as illustrations (but by no means perfect paradigms) of what is possible and being developed in the field of experiential education.

These program examples cover a wide variety of adaptations of OUTWARD BOUND techniques and philosophy. But the examples share the underlying concern of seeking growth in an individual's positive feelings about himself and those around him.

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Involvement In Local Community:

Community Apprenticeship Program

Open Living School, Edgewater
Jefferson County

Suzann Mockovak

The Community Apprenticeship Program (CAP) at Open Living School in Edgewater, Colorado, is a community learning project for students ten through fifteen years old. The students are placed in the environment of the community teacher whom they choose and have a desire to learn with.

The learning to be sought in the experience is defined by the persons involved: the student, his parents, the community teacher, and the CAP coordinator, Dorsey Hill.

A contract is formulated and specifies their shared goals. This contract is unique to each student's learning situation.

The community teachers are usually not "teachers" in the classroom sense. Among the people currently serving as CAP teachers are professionals in physical therapy, zookeeping, law, diesel mechanics, electrical circuitry, wood working, educational television management, flying, computer programming, mathematical sociology, and geology.

The students are not merely observers of these professionals in their labor environments. They are participants, and thereby receive a valid introduction to what the career entails.

Since the initial purposes of CAP all involve affective growth, affective measurement seems a valuable tool. The following CAP objectives include the student behavior (indicators) that will evidence the achievement of these objectives.
COMMUNITY APPRENTICESHIP PROGRAM: OBJECTIVES

1. Student begins to see/use the community as a classroom.

   behavioral indicators:
   a. student chooses to participate in the Community Apprenticeship Program
   b. student identifies his interests and priorities

2. Student becomes willing (is confident) to be out of the classroom.

   behavioral indicators:
   a. the student and the CAP coordinator make the initial contact with the community teacher to set up a parent-student-CAP coordinator-community teacher meeting
   b. the student follows through on appointments with teachers and parents
   c. student can communicate his feelings and questions to significant adults (parents, OLS teachers, CAP teachers)

3. Student becomes more open to what the learning process is.

   behavioral indicators:
   a. student shows willingness to listen and to try other's ideas and solutions
   b. student questions and interacts with the CAP teacher during the learning experience
   c. student tracks his learning by means of an agreed method, such as taping, note taking, pictures, etc.

4. Student shows willingness to take responsibility for his own learning in the CAP.

   behavioral indicators:
   a. student works with community teacher and parents to set realistic goals for his learning
   b. student follows through on agreed procedures and commitments and appointments
   c. student completes his learning for his course of study with the community teacher
   d. student can evaluate his participation in the program through discussion.
Living Within New Community Environment:

Farm Live-In

Mitchell High School Senior Seminar
Colorado Springs

Nancy Pardee
Gary Fornander

The Mitchell Senior Seminar is a semester-long program of learning by direct experiences in a number of environments. The major setting is the urban environment of Colorado Springs. Complementing this, the program utilizes the surrounding rural communities and the wilderness areas.

Sixty to eighty Senior students participate in the program for one semester, and receive five interdisciplinary credits. The program is staffed by four teachers under contract in the District, along with four to five student teachers each semester. Funding comes from two sources: 1) School District support: $7.50 per student; and 2) each student raises $50 through a Trash-a-thon.

The main thrust of the program is for students to experience different community life styles. The Seminar is structured around a series of two to four week "blocks", with several blocks operating at the same time, each with a small group of staff and students. Among the variety of block experiences for students are: Living with the Earth (pioneer ranch experience), Outdoor Challenge (Gore Range or Grand Canyon), Crime and Punishment, People Power, Dollar Power, Why Man Creates, High Trails, and The Other America. All students begin the Seminar with the Living with the Earth block, and then choose any four from among the other offerings.

A new block that is proposed for inclusion in the Seminar involves a ten-day experience in the rural farming community of Chappell, Nebraska. The following objectives explain what much of the growth for students will be in this live-in; the behavioral indicators point out the student action that will demonstrate this growth.
SENIOR SEMINAR FARM LIVE - IN: OBJECTIVES

1. Student will develop positive communication and group interaction skills.

   behavioral indicators:
   a. student is willing to share his/her feelings and experiences on the block with the Seminar group and the host family
   b. student shows concern for the sensitivities of persons of the Chappell community
   c. student seeks interactions with individuals other than those in his/her age group and peer group
   d. student listens to other points of view and is willing to try another's ideas
   e. student displays understanding and reverence for the values of the Chappell community people

2. Student will demonstrate an attitude of responsibility toward his/her own learning.

   behavioral indicators:
   a. student participates actively in the formulation of block objectives and process
   b. student seeks out people and material resources in both Colorado Springs and Chappell, and utilizes those which can serve his/her learning needs
   c. student willingly attempts a variety of previously untried experiences
   d. student is inquisitive and questioning throughout experiences of the block

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Outdoors Activity (winter):

Cross-Country Ski Program

Centennial Junior High School
Boulder

John Collins

This cross-country ski program involves twenty students, from the eighth and ninth grades. Students participate in all levels of the program's planning and implementation. Participants are chosen on the basis of their written response to these questions: 1) what personal objectives do you propose to set for yourself to achieve on this trip? 2) what group objectives do you think would be useful and realistic to set for the Centennial group?

The students plan for the program at a number of meetings where they determine fund raising tactics, the menu and work rotation during the ski experience, and the environmental studies projects. They also have one day in basic cross-country skiing instruction and practice before their three day mountain experience in Granby.

The mountain experience includes further instruction and practice in cross-country technique, along with training in basic first aid and winter survival, map and compass, equipment care, environmental studies, and group problem solving. There is also time during one afternoon for a short solo experience.

Much of the learning during this program is cognitive and psychomotor. But it is highlighted and supported by the student growth which occurs in the affective domain. The following objectives explain the desired growth in this domain, and the behavioral indicators that clarify this growth.
CENTENNIAL CROSS-COUNTRY SKI PROGRAM: OBJECTIVES

1. Student will develop his/her ability to deal with a group of other students.

   behavioral indicators:
   a. helps to organize work crews for preparing food, cleaning up, researching projects
   b. in role of leader, is fair and firm: listens to all opinions on a topic of discussion, can draw out those who are noncommittal or quiet
   c. student works to resolve conflicts within the group
   d. student contributes to helping the group solve the obstacle problem
   e. student points out strengths of other students in discussion of group activities

2. Student will demonstrate his confidence in his worth as an individual.

   behavioral indicators:
   a. student indicates a willingness to discuss personally meaningful topics with a group of peers
   b. student willingly accepts leadership in a cross-country ski group or a discussion group
   c. student accepts opinions and values of others in discussions of controversial topics

3. Student will acknowledge his responsibility toward influencing social change for environmental awareness.

   behavioral indicators:
   a. student takes care to have as little impact on the environment as possible during outside activities
   b. after discussing the environment (ecologically, economically, and esthetically) and prevailing social attitudes toward it, the student decides on a personal commitment to a national environmental organization, a local environmental group, a school-oriented group, or a personal activity such as letter writing to political representatives about environmental issues

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Outdoors Activity (spring, fall, summer):

Beginning River Canoeing

Greeley Public Schools

Bernie Kendall

Cecil DeBey

The purpose of this class is to have students experience the out-of-doors through river canoeing. The student will develop skills in manipulating a canoe, understanding water and recognizing hazards, and observing safety while river canoeing.

The instructors believe that a course in river canoeing affords people a lifelong recreational activity. Proper training in this activity encourages respect for and enjoyment of the natural river environment.

This class is aimed at young adults and older individuals. The source of funding is through students' fees paid to the University of Northern Colorado. The length of time for the class ranges from twenty to forty hours (a three quarter-hours class). The class will use three instructors who will supervise a total of twenty students per section.

The class involves one classroom session and one pool session. The remainder of class time will be spent on the Platte and Poudre Rivers in class I and II water (international river classification system).

The course covers the basics of equipment and clothing needs, hypothermia considerations, river hazards, and water hydraulics. In the water, practice focuses on the fundamental paddle strokes, how to manage a swamped boat, canoe launching and maneuvering, and downstream paddling.

In this program, there are objectives dealing with the attitudes of students on the levels of individual, group, and environmental awareness. The behavioral indicators for student growth on these levels are included.
BEGINNING RIVER CANOEING: OBJECTIVES

1. Student will display a positive sense of self worth.
   
   behavioral indicators:
   a. student is willing to accept constructive criticism
   b. student willingly admits own mistakes
   c. student is open to trying new techniques in canoeing

2. Student will demonstrate a commitment to functioning as a contributing member of the group.
   
   behavioral indicators:
   a. student has fun, laughs, smiles and generally shows he or she enjoys being part of the group
   b. student shares responsibility with canoe partner for care of canoeing equipment
   c. student works in harmony with canoe partner to maneuver the canoe
   d. student looks after the safety of others in the group by informing others of hazards and helping with rescue
   e. student is aware of the possibility of severe consequences to the group caused by individual behavior, and therefore does not take chances and expect others to rescue him.

3. Student will be open to the beauties of the natural river environment.
   
   behavioral indicators:
   a. student shares sightings of wildlife with other students
   b. student identifies to others the unnatural material that detracts from the natural environment

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Program For "Disaffected" Students:

School-Within-A-School (SWAS)

Mitchell High School
Colorado Springs

Lois Morey

The purpose of this program is to provide an alternative method of education for up to one hundred sophomores at Mitchell High School. The program is interdisciplinary and focuses on the immediate needs and interests of individual students. The ultimate goal of the program is to have the students experience success in their sophomore year.

Student selection is based on individual request and/or teacher or counselor referral of a student who is, for any reason, unable to adjust to the Mitchell environment. SWAS is an alternative for disaffected students of all abilities and all levels of emotional maturity.

The program offers five discipline credits, including English, social studies, physical education, mathematics, and symposium. The approach, however, is not subject oriented. The concentration, instead, is on basic skills and motivational activities through the medium of interdisciplinary study. The staff of six includes an instructor in each discipline.

The program is not experiential by the familiar definition which includes changing the student's environment over an extended period of time. It is meaningful experientially because it provides the student the opportunity to take responsibility for his/her own learning. This occurs both within the classroom and during the day trips to the mountains or downtown. The students have not merely toured these environments. They have conducted environmental studies, climbed rocks, opened checking accounts, and conducted interviews as part of their responsibilities as SWAS students.

The primary problem of students in the program is motivational, and the teachers in the program have chosen to deal with that fundamental need. They recognize that they must develop some measurable affective objectives to demonstrate the program's impact and accomplishments. These objectives and their behavioral indicators are clarified on the next page.
PROGRAM FOR "DISAFFECTED" STUDENTS: OBJECTIVES

1. The student will demonstrate a willingness to take responsibility for his/her own learning.

   behavioral indicators:
   a. student tells staff when class activities seem inappropriate
   b. student recognizes the limits of personal abilities

2. The student will recognize and develop his/her problem-solving skills.

   behavioral indicators:
   a. student identifies alternative methods for resolution of a specific problem
   b. student recognizes social constraints on individual activities
   c. student expresses an understanding of his/her own learning successes

3. The student will recognize and cultivate the significance of his/her own group membership.

   behavioral indicators:
   a. student accedes to the ideas of peers or staff
   b. student participates in group decision-making
   c. student talks with peers and staff about individual concerns

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Outdoor Pursuits For The Mentally Retarded:

AVATRAC
Denver

Joie Hurtman

The outdoors offers to the mentally retarded and other handicapped persons a unique medium for personal growth and development. It is an additional, not a competitive, tool whose integration into an existing activities therapy program can be invaluable.

The physical environment has the advantage of making immediate and necessary demands which the individual must respond to. Through active participation in a controlled environment, the individual and the group go through a series of guided relevant challenges and experiences, that range from increasing their knowledge and skills, both intellectual and physical, to personal growth as an individual.

In addition to the actual experience, pre-activity involvement and follow-up are essential for carry-over into the client's life situation.

Cross-country skiing, backpacking, camping, canoeing, and rock climbing are the outdoor experiences now offered. Activities such as map and compass work, orienteering, group initiative games, confidence tasks, etc., are present throughout the courses.
OUTDOOR PURSUITS FOR THE MENTALLY RETARDED: OBJECTIVES

1. Student will come to have an increased sense of personal worth and self confidence.

   behavioral indicators:
   a. student looks after own safety and well-being
   b. student is willing to cope with discomfort and stress
   c. student makes the most of a difficult situation
   d. student discovers that he can do more than he thinks he can; student has success at something he never thought he would even try
   e. student is able to laugh at himself about making mistakes

2. Student will have an increased sense of independence.

   behavioral indicators:
   a. student is more willing to do things without being told
   b. student is more able to take his own initiative

3. Student has an increased ability to work, react, and socialize within a group.

   behavioral indicators:
   a. student carries own weight and does own share of the work
   b. student exhibits feelings of trust in a difficult situation

4. Student respects private property and shows reverence for living things.

   behavioral indicators:
   a. student refrains from disrupting existing fences, buildings, etc.
   b. student avoids needless destruction of plant or animal life
   c. student willingly carries out or properly disposes of everything he or she brought in
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Lakewood

Mayo DeBay (Cecil)
Greeley Public Schools
Greeley

James DePaulo
Bear Creek High School
Lakewood

Jerry Gates
University of Northern Colorado
student

Gary Fornander
Mitchell High School
Colorado Springs

Joie Hartman
AVATRAC
Denver

Claudia Irwin
Estes Park High School
Estes Park

Jan Jorstad
Estes Park High School
Estes Park

Bernie Kendall
Greeley Public Schools
Greeley

Charles Kisler
North Arvada High School
Arvada

Doug Kroft
University of Colorado
student

Mark Leachman
University of Northern Colorado
Master's candidate in Outdoor Educ.

Don Magnuson
Estes Park High School
Estes Park

Harlan Miller
East High School
Denver

Suzann Mockovak
Open Living School
Edgewater

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Lois Morey
Mitchell High School
Colorado Springs

Nancy Pardee
Mitchell High School
Colorado Springs

Mary Poling
Hinkley High School
Aurora

Marcella Porter
University of Colorado
Education student

Leonard Price
Thomas Jefferson High School
Denver

Roger Schoenstein
North Junior High School
Colorado Springs

Les Slaughter
Mitchell High School
student teacher

Sandee Swanson
University of Colorado
Education student

Betsy Taoka
Open Living School
Evergreen

Martha Wixson
Open Living School
Evergreen

Master's of Education candidates (Colorado OUTWARD BOUND and University of Colorado degree with emphasis on experiential education):

Dave Hedgecock
Owen Kimball
Janie Mallory
Tom Mayer
Alistair McArthur
Jeff McKay
Zoe Rabinowitz
Rick Tidrick
Junior Weed
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