A leadership simulation model, patterned after the avalanche simulator used by the United States Forest Service and applicable within a variety of field situations (outdoor camps, church groups, commercial enterprises) can augment the development and observation of outdoor leaders. The model includes both a broad base of practitioner inputs and an interaction component between the player, control team, and audience and is permeable to input before, during, and after the simulation exercise. The model is designed as both an evaluative tool and learning exercise and moves from a predominance of control team input at the start to one of increasing feedback between the audience and players. The model consists of the following steps: (1) initial design of simulator; (2) initial scenario development; (3) pilot run for major design flaws and acceptance by other professions in the field; (4) modifications of concept thought to be useful or deleted if unwarranted; (5) redesign scenario using panel of experts; (6) presentation of final package. The model includes five components: control team; player(s); audience; scenario(s); and communication equipment (radios, slides, overheads, hand-outs, etc.). In designing scenarios, five considerations must be addressed: time setting, environmental setting, level of detail, level of expertise, and credibility. (NEC)
The Development Of The
Outdoor Leadership Training Simulator

by

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If one were to examine the training of outdoor leaders, patterns would emerge which are similar to many other systems. Outdoor leadership has emerged from a position of relative obscurity based almost entirely on prior experience, to one of widespread concern filled with many types of contestable issues, i.e. certification, group size, liability.

If one can work his way past the problem of accurately defining outdoor leadership, the next Scylla and Charybois to overcome seems to be the most critical—a matter of form. In other words, how should outdoor people become leaders in the outdoors? Paraphrasing from Roger's (1979), outdoor leadership is:

Having the right person
With the right knowledge
In the right place
At the right time
And with the right people

Although an obvious truism, the operational key to the above paradigm of outdoor leadership is the word "right". Whomever decides upon the "rightness" of the program or the people involved or the equipment used, must formulate an opinion about the topic in question, and ultimately employ the concept of judgement.

The profession of outdoor leadership has done an admirable job of forming the pieces of outdoor leadership, that is, the knowledge, the skills, and the ubiquitous checklists (Petzoldt, 1984; Buell, 1983; Darst and Armstrong, 1980; Borozne, et. al., 1977). Other works have

For interesting early accounts of outdoor leadership see Sears (1920), Wagar's (1940) "Certified Outdoorsmen", and Zweig (1974).
examined the philosophy, pedagogy, and research-base in the outdoor leadership profession (Meier, et. al., 1980; Kalisch, 1979). From an experiential perspective a variety of training methodologies have emerged such as: staff manuals, assistantships, certification programs, and experience checklists.

Taken as a whole, the field of outdoor leadership has shown many of the signs of a healthy emerging profession with a growing number of information sources and training strategies. The crux move that still remains is developing proper judgement in order to make "right" decisions.

How we teach, display, and determine judgement and its companion, decision-making, has proven to be a particularly important but vexing problem. The concept of decision-making does not easily lend itself to the strict cognitive environment (i.e., the indoor classroom). On the other hand, can we assume that an individual has ample judgement making opportunities in a highly structured leadership course? Certainly the liability cloud tends to preclude many opportunities for the individual student to make serious interactive decisions. In a similar mode, how are program directors and administrators to determine the decision-making skills of perspective staff members? Currently, the most widely used method is to link experience, often exemplified by the resume or application form, with correct decision-making. The assumption being if an individual participated in a select group of outdoor adventures and survived, he or she must have done something right. Thus, while we are cognizant of the need for determining or displaying an individual's leadership skills, we continue to struggle with developing a practical, effective, and affordable (both in terms of time and money) method of achieving this goal.
Developing The Model

Assuming that other professions such as the military, commercial airlines, and emergency-service organizations are faced with the similar demands of leadership training and evaluation (Kendig and Buck, 1984), relevant literature was reviewed seeking previously developed models. As expected, the organizations mentioned above, and quite a few others (Cruickshank and Telfer, 1979) have developed extensive training exercises using simulation models. Simulation being defined as giving the appearance of, or something representing something else (Barton, 1970). The model described in the paper was patterned after the avalanche simulator used by the U.S. Forest Service. Before describing the process for developing the leadership simulator, it should be remembered that this technique is not intended to replace field experience. Rather, the simulator can be used to augment the development and observation of outdoor leaders. Just as the flight simulator is used in conjunction with an actual flying program, the leadership simulator can be applied within a variety of field situations, i.e., outdoor camps, church groups, commercial enterprises, etc. This is particularly important when one considers the time and financial constraints placed upon the administrator or director.

The Process

This particular simulation model is designed to include both a broad-base of practitioner inputs, and an interaction component between the player, control team, and audience. The model is permeable to input at all three phases of the simulation exercise: before, during, and after.
The model is designed as both an evaluative tool and learning exercise, and moves from a predominance of control team input at the start, to one of increasing feedback between the audience and players. (See Figure 1)

The process used to develop this model consists of the following steps:

1. Initial design of simulator.
2. Initial scenario development.
3. Pilot run for major design flaws and acceptance by other professions in the field.
4. Modifications of concept thought to be useful or deleted if unwarranted.
5. Redesign scenario using panel of experts.
6. Presentation of final package. (See Figure 2)

Description of Model

This simulation model consists of five components. These components include: the control team; the player(s); the audience; the scenario(s); and the communication equipment (radios, slides, overheads, hand-outs, etc.)

The control team interweaves the player(s)' responses to unfolding outdoor leadership situations. The control team also steers the simulation exercise using both pre-designed scenarios or specific on-the-spot situations. Through comment sheets and post-game discussions, both the audience and player are encouraged to critique the simulation exercise. The comment sheets are given to the player to help him/her develop a clearer picture of the leadership skills as demonstrated in the simulation exercise.

Scenario Design

In designing the scenarios, five considerations had to addressed:

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1 For a general description of scenario design see de Leon (1973).
the time setting; the environmental setting; level of detail; level of expertise; and credibility. With respect to the last consideration, events of earthquake, Tsunami, volcano, etc., could be built into the scenarios. But the likelihood of such a happening (Mt. St. Helen's notwithstanding) are small. Consequently, these types of events may not be very realistic. Other more mundane happenings such as group confrontations, people becoming lost or hurt, fear, rockfall, etc., fall much more readily into the outdoor leader's typical expectations. Of course, predicated into each scenario is the function of the simulation.

A final consideration in the design of the scenario is the approach taken to involve the player(s). Two approaches can be pursued: First, the scenario goad which takes the player(s) deeply into a situation thereby limiting the number of reasonable responses they can make. A second approach is the control goad which penetrates the leadership situation less deeply thereby increasing both the number of possible responses and the involvement of the control team. The type of approach used is often dependent upon the purpose of the exercise (evaluative or teaching) and the expertise of the player(s) (more experienced players require less detailed scenarios).

Concluding Remarks

Just as simulation has a place in the development of pilots, generals, or avalanche control specialists, the field of outdoor leadership can benefit from the simulation exercise. While already practiced in many outdoor experiential organizations through mock search and rescue or emergency situations, some may reject the idea of developing outdoor
leadership through an indoor medium. Despite the obvious limitations of this type of training paradigm, i.e. most notably the lack of any real consequences, it is ludicrous to ignore the very real benefits of this type of simulation. Not only can evaluation be done using a simulation model, but as Herman Kahn of the Hudson Institute stated, simulations are meant to "stretch the mind and allow a player to envisage the future in concrete terms." While not designed to predict the future perfectly, simulations can be used to study the reactions of the game participants and the options they generate (de Leon, 1973). From an organizational perspective, it (simulation) can provide a valuable insight into hiring decisions that go beyond the resume or application form. From an individual perspective, the simulation model can point to areas in which further experience may be desirable.
References


Rodgers, R. 1979. Leading to share, sharing to lead. Sudbury, Ontario: COEO. p. 3.


Figure 1
Depiction Of Input/Feedback Locations
FIGURE 2
Process Steps In Simulator Development