A Recreation System Model

John L. Crompton
Department of Recreation and Parks
Texas Agricultural Experiment Station
Texas A&M University, College Station, Texas

The paper suggests that recreation management comprises a set of tasks and skills which are applied to a number of interrelated component elements. The elements are considered in the context of a total system which serves as a framework to evaluate the impact and utility of specific research findings or management decisions.

Input factors of production are processed into a facility through an organization which initiates planning and marketing efforts. The facility's potential to provide an enriching personal experience for its users is realized through the quality or atmosphere of the facility and the marketing skills of its management. In the short term, after the ability of particular programs to provide opportunity for want satisfaction has been evaluated, appropriate adjustments may be made to the physical facility or to the marketing mix. In the long term, if a sufficient number of users enjoy emotional fulfillment, then the community is likely to be supportive in supplying additional inputs. Keywords: recreation, management, system, factors of production, marketing.

Management tasks and skills in recreation have generally been considered in isolation as a series of independent, atomistic actions. Discussion has focused on specific problems or techniques without systematically defining interrelationships among component elements or attempting an explicit exposition of the total system. This paper suggests that the work of both practitioner and researcher should be considered in the context of a recreation management system which incorporates a complete set of managerial tasks and component elements. For the practitioner, concerned with planning and operating a successful program, the system serves as a framework within which to evaluate the extent to which ap-
Figure 1: A Recreation Management System.
parently insular actions are in fact related, and hence their impact upon other components. Similarly, the frame of reference enables apparently independent research contributions to be more readily integrated.

Some concepts utilized in the model (Figure 1) have been adopted from the marketing literature, but the general model initially evolved as a response to the specific problem of establishing a leisure program in the new city of Craigavon in Northern Ireland. A system as used in this paper is defined simply by Downing (1971):

A system is an organized whole, consisting of a number of identifiable, relatively independent parts, which interact and have some relationship one to the other. It has a built-in control mechanism that maintains the relationship by releasing counterforces to any disturbance that could upset the balance.

A systems concept of recreation management requires that the objectives, strategies and tactics of all the interdependent components are coordinated, oriented and continually adjusted towards providing maximum opportunities for an enjoyable recreational experience.

The functions of management may be classified under three general headings: planning, execution and control. The first three stages of this recreation management system model, Input, Process, and Output, are primarily concerned with planning; the fourth stage, Transposition, with execution; while control is induced by an appropriate corrective feedback mechanism which adjusts planning and execution on the basis of responses monitored in the fifth stage, Outcome. For the purposes of exposition it has been assumed that the system is a public recreation department and that Output of the system is represented by a recreation facility. Alternatively the system could be an event, for example, a parade, festival, fair, or other activity.

**Input**

The energizer of the system is dollars, for money is required to activate the three factors of production: natural resources, labor, and capital goods. These factors are neither totally interchangeable nor complete alternatives, but, because they are activated by dollars they are partially substitutable, interrelated, and interdependent. For example, if the availability of land (a natural resource) is restricted, it may be possible to compensate by using additional labor or materials (capital goods) to construct indoor facilities, artificial playing surfaces, or floodlighting, in
order to secure the same degree of use output as would be forthcoming from the optimum amount of land alone. Alternatively, additional labor to service the program offered on the land may serve to compensate for the restricted amount of land, hence securing the quality or quantity of program that was originally envisaged.

Problems of resource allocation, in terms of determining the appropriate amount of input, are common to all types of economic activity. Normally the amount and type of input is assessed on the basis of the monetary output that will be returned on the input invested. Inputs are then allocated to the highest bidder. In public recreation projects, however, the output benefits cannot be assessed in market terms, so the market mechanism cannot operate.

At this time input guidelines in recreation revolve around standards which are almost exclusively based on land; for example, 10 acres of open space per 1000 population. This is irrational for it ignores potential substitutability by other factors of production. For optimum efficiency the combination of input factors which provide the minimum dollar and social cost for a given level of benefits should be chosen. Thus, the amount of land required should be directly affected by the price of labor and equipment. Thus, to advocate that a town of 5000 population should have 50 acres of open space is meaningless, since a recreation director should be able to achieve more with 200,000 dollars worth of materials and equipment and 50 acres of land than with 20,000 dollars worth of materials and equipment and 50 acres of land. Similarly, much more should be achieved with a professional staff of twenty and 50 acres of land than with a staff of two and 50 acres of land. Standards are essentially a proxy used in lieu of market-demand knowledge. If they are to be used as a basis for determining what proportion of fundamental input resources should be allocated to public recreation agencies, then all three primary factors of production should be incorporated into the formula, rather than land alone.

**Process**

Factors of production are processed into recreation facilities through an organization and the application of management and marketing skills.

**Organizational Structure**

Clearly the organization can do much, either positively or negatively, to influence the processing of factors of production into recreation facilities.
The nature of this influence will depend upon the attitude and goals of various component forces within the organization and their compatibility with development of the envisaged facility. In addition to the issue of compatibility, structure of the organization may be an important factor in the Process stage. The organizational structure of recreation departments, in Burns and Stalker’s (1961) terms, appears to be changing from “mechanistic” to “organic.” The mechanistic department is characterized by a multi-tiered organization with senior management, remote from the needs of the community, making all decisions. There are at least four hazards of mechanistic organizations: rigidity, hierarchy, block thinking and depersonalization. All must be avoided if an optimum facility is to be developed. The development of a new facility is clearly a senior management responsibility, but an organic structure, characterized by a maximum of individual discretion, a minimum of subjection to personal authority, and frequent interaction between colleagues should provide input which is more empathetic to the community viewpoint.

Facility Planning

The first task of management is planning. When new recreation facilities are being planned, control of their design should be retained by the recreation manager who will operate the facility when it is completed. Design responsibilities should be delegated, rather than abdicated, to the architect or designer. Retention of control is imperative in order to ensure that management control is built into the recreation facility, for every line which the architect draws has a management implication. Too frequently recreation managers are heard to say: “If only someone with management expertise could have had a say in the design of this facility so many mistakes could have been avoided.”

The architect or designer should not be expected to possess recreation management expertise and knowledge, for he is not trained in that area. To abdicate design responsibility and give the architect an open brief implies that he is expected to acquire management knowledge by visiting similar facilities elsewhere. In essence this is analogous to advocating that the recreation manager should be allowed to design a building after visiting similar buildings elsewhere, when clearly he would lack the necessary professional skills and training.

The largest item of expenditure in the operation of a recreation facility is likely to be salaries, wages and associated direct overhead costs. For this reason, if a facility is to be managed economically, it is important that it be designed for operation by minimum numbers of personnel.
Assuming a facility is to be open for 90-100 hours per week, each control point within it is likely to require the equivalent of two-and-one-half staff members to man it over a whole year, taking into account shift systems, illness absence, and vacations. A salary of 8000 dollars per person would represent a cost of 20,000 dollars per year per control point. If the facility's life is 50 years, then to staff each control point will cost 1 million dollars over the life of the building. Thus the cost of including a single control point, which with more knowledge or forethought could have been eliminated from the design, may be greater over time than the total capital cost of the whole facility.

Management expertise and knowledge of flow patterns should be used to build management control into the design, thus reducing the number of control points to a minimum. In addition, management specification of materials, based on previous experience of their costs in use, can lead to major savings in future maintenance. Knowledge of appropriate technology, such as alternative control systems, closed circuit television for supervisory purposes, lighting arrangements, automatic ticket machines, and other factors, can also lead to savings. It is important that this management input be continuously fed into the design process and that the design be developed to accommodate it, for to introduce these considerations when the facility is completed involves significant additional capital costs.

Marketing
Marketing has at least two important contributions to make in the processing of Input factors. First, there is the need for market strategy planning to ensure that the facility incorporates the most appropriate mix of physical elements and that it is well located. If these two initial planning decisions are not optimum, then no matter how good the subsequent programming, promotion, and pricing strategies, the facility is unlikely to be successful. Conversely, a well conceived and located facility may be successful in spite of inadequacies in operating management (McCarthy, 1975).

The second contribution of marketing at this stage is to develop appropriate strategies for eliciting support from all target markets. Following Kotler's (1972) model of an organization's publics, there are at least eight different target markets to be considered in the development of a recreation facility (Figure 2). These can be categorized into input publics, output publics, and sanctioning publics.

There are three input publics: (1) support publics are the committee or decision-makers responsible for determining allocation of the factors of production for a facility; (2) supplier publics are the builders,
Figure 2. Organization Publics.
equipment suppliers, representatives, and others responsible for providing the labor and capital goods factors; and (3) employee publics. All the department's own employees need to be informed on proposals and the progress of any new facility. They will ultimately be responsible for operating it, and if they are involved in the project from the outset, their enthusiasm and commitment is likely to be maximized.

The single output public consists of those people who are potential users of the facility. The essence of marketing lies in discovering, creating and arousing consumer needs, then developing the most appropriate facility to satisfy those needs. To develop a facility without involving its targeted users makes the task of attracting consumers to it, when it is completed, more difficult than necessary. Marketing performs the function of bringing the needs of potential consumers of the facility to the attention of the input suppliers. Theoretically, the public recreation agency developing a facility serves as the catalyst between input suppliers and ultimate users of the facility. The potential consumer's input is thus inherently valuable. At the same time, if the department is forcefully committed to the facility, the visible involvement and vociferous support for the facility from this group is an important endorsement of the department's efforts, serving to reinforce its marketing effort to the input support publics.

There are four sanctioning publics: (1) government publics, who provide the legal and fiscal framework which enables a facility to be developed. Their involvement through grants, loans, permissions, permits, easements, etc., is likely to be required somewhere in the development process; (2) special publics are groups concerned with maximizing benefits to specific interest sectors of the general public. They may, for example, be conservation groups aiming to stop construction of a facility, or groups representing the handicapped, seeking to ensure that a facility fully caters to their needs; (3) general publics are generally the groups at whom most marketing efforts are directed, since their taxes are used to construct a facility; and (4) competitor publics will usually be the commercial sector. If a facility is intending to cater to a market which is at least partially served already by a commercial operator, as, for example, the development of a public marina in an area where there are private marinas, there is a need to reassure the commercial operator that the objective is to maximize total consumer benefits without any adverse impact on existing operators.

These eight publics represent distinct and separate targets for marketing programs because each has a potential critical impact on the facil-
ity. Opposition or lack of support from any one of these publics may at best lead to bad publicity and at worst lead to abandonment of the project. Consequently, each public requires an individual marketing effort. The objective of each market strategy is to seek the maximum possible support of each group for development of the facility. Efforts should then be made to ensure that initial support is retained so that the facility opens with the maximum of goodwill, commitment and positive attitude behind it.

Output

The product of working through an organization and using management and marketing skills to process factors of production is assumed to be a facility. A facility is a physical resource which may be used for formal or informal programs. Its value may be assessed in both qualitative and quantitative terms.

The quality and atmosphere of a facility is a major factor in bringing about a want-satisfying recreation experience and thus attracting participants into a program. Overzealous concern with securing facilities at minimum cost through economies on such items as carpeting, furnishing, landscaping, and other items is precisely the way in which to ensure a failed development.

Within enabling parameters, as, for example, fire regulations, the recreation manager is responsible for determining the quantity of output, that is, the carrying capacity, of a facility. Alldredge (1972) suggests that the goal of the recreation manager is to develop and operate the facility so that, over a long time period, it will produce the maximum possible total public enjoyment. This management goal is similar to the concept of “maximum sustained yield.” Alldredge points out that three components are involved in the production of public enjoyment, and that each has a separate capacity: (1) facilities capacity, defined as the maximum number of recreationists which installed facilities can accommodate; (2) resource-bearing capacity, defined as the maximum number of recreationists who can be accommodated so that any physical natural resources in a facility will not be irreparably impaired for future public use; and (3) visitor carrying capacity, defined as the maximum number of recreationists who can be accommodated so that the total public enjoyment generated is greater than that generated by any other number or flow of recreationists.
Whichever one of these three gives the smallest capacity figure is the controlling definition in any given situation and thus represents the output potential of a facility.

Transposition

Once a facility has been provided and its qualitative and quantitative potential evaluated, the most familiar recreation-management role, that of programmer, becomes paramount. All previous investment of resources and effort has been made in order that either organized programs or unorganized access can be offered. Some managers in recreation are production oriented, conceiving as their central concern the output facility and its equipment with which the manager works, for example, the chlorination plant, the theater lights, or the tumbling equipment. Certainly these technical aspects of production are important, but they must be secondary to concern for the customers.

Again, the critical skill in maximizing use is marketing. Criteria governing decisions on the most appropriate marketing mix will be determined by the department's objectives. Using these criteria as guidelines a program mix for a facility will be derived, together with a pricing policy for each activity in the program, and a promotional strategy to bring the program to the attention of selected market targets.

Outcome

The evaluative criterion against which the success of recreation programs or facilities is usually assessed is participation rate. Unfortunately, this measure is often inaccurate because it is subjected to promotional bias and manipulation. For example, traffic counters can be situated in such a way as to multiply a single attendance many times over, by counting several trips associated with a single visit as several different attendances. Since attendance is used for evaluation, and is frequently considered as a factor in the budgetary decision-making process, there is every incentive for managers to abuse the system. Thus the simple process of enumeration, unless it is directly supervised by an impartial, disinterested source to remove the element of vested interest, is more likely to mislead than to inform.

In addition to the pragmatic difficulties of enumeration, there are philosophical objections to its use for evaluation. These are succinctly expressed by Gray and Greben (1973):
We should have discovered long ago the nature of the business we are in, but we have not. Only now are we beginning to rethink what recreation is. In the emerging view it is not activities, or facilities, or programs that are central, it is what happens to people.

They go on to point out that one of the implications of this is that:

We must evaluate everything we do in human terms. The critical questions are not “How many were there?” or “Who won?” The critical question is, “What happened to Jose, Mary, Sam and Joan in this experience?” . . . We must reorient our approach to services, to think not only in terms of activities and programs, but also in terms of human experience.

To base the adaptive feedback control mechanism on enumeration is thus inadequate on both pragmatic and philosophical grounds. It is used primarily because it is expedient. Essentially its use means that quantity of participation is being used as a proxy for quality of experience. Although there may be some validity in this assumption (for example, it may be deduced that in returning, a repeat visitor or participant is displaying evidence of a previous high-quality experience) it is equally possible that in the case of non-repeat visits the relationship between quantity and quality of experience may be tenuous.

The primary purpose of providing a public recreation service with its associated facilities and personnel is to satisfy consumer wants by providing opportunities for individuals to enjoy a recreation experience. This is its end-objective, and all components of the recreation management system are oriented towards achieving this end. The difficulty confronting the recreation manager is how to measure this in order to evaluate success of the agency in providing appropriate opportunities for recreation experience. Such evaluation requires measurement of perceptions and emotional reactions. Most public recreation agencies have neither the financial resources nor the knowledge to undertake scientific evaluative research of this type. Nevertheless, all can obtain some subjective evaluation from informal comments and opinions of participants, if these are solicited, and this is an important source of evaluation.

**Feedback**

The department should be engaged in a continuous process of adaptive behavior which serves as control mechanism for the system. When the ability of particular programs to provide opportunity for want-satisfaction has been evaluated, changes and adjustments are inevitable.
The importance of monitoring the whole operation, and adjusting on the basis of feedback rather than simply on intuition, cannot be over-emphasized. It is important to find out which sections of the target population are not using a facility and to discover the reasons for this. Those who have used the facility but not returned, suggesting an unsatisfactory recreation experience, should be identified and the reasons for this sought. Actual users could be separated into categories along a continuum from regular to very occasional users and an effort made to determine the differences, if any, which exist between these groups.

The appropriate point for feedback to secure short-term adjustment of the system is either Output or Transposition. At the Output stage physical changes in the quality of the facility environment, or changes in its carrying capacity limits, may aid opportunities for improved recreation experiences. Alternatively, the adjustment may be needed at the Transposition stage in market target selection, in programming, in pricing or in promotional strategies.

In addition, there is a long-term feedback mechanism operating which serves to partially close the system, or at least to determine its ability to be reactivated. The reputation of a facility in the community will be founded primarily upon the reaction of its users. If the system has failed to achieve its goal of having users enjoy satisfactory experiences and achieving emotional fulfillment, the community is unlikely to be supportive in supplying additional inputs. Since all the factors of production are dependent upon supply of dollars before they can be activated and directed in a specific direction, positive feedback is essential to the continued expansion and enhancement of the department's recreation program.

Conclusion

The model presented in this paper, through linking Input, Process, Output, Transposition and Outcome, has attempted to provide a framework which will assist integration of research findings and differentiation between good and indifferent management in recreation. In a public recreation department where the profit criterion is not available for feedback on performance, it is possible that management may become inward-looking and self-justifying in its approach. Too often departments and managers in recreation have concentrated on deploying and processing inputs without having any notion that the ultimate goal should be an enriching personal experience. Their emphasis has been placed on pro-
ducing recreation programs rather than providing solutions to people’s needs, and their objectives have not been framed in response terms of personal experience. Rather, they have operated either without clear objectives or objectives which were concerned only with Output or Promotion. This type of management is facility- rather than consumer-oriented, placing more value on the physical and administrative tools of the field than on the quality of the user’s experience. The product which is being sought by the participant is a quality recreation experience; facilities, management, and other aspects are simply means to an end, distribution channels through which this experience is marketed to the consumer. The system model is not intended to underestimate the importance of technical problems, but rather to illustrate that ‘production’ is only one facet in the managerial environment, and that the personal experience of the consumer is of greater relevance.

References

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