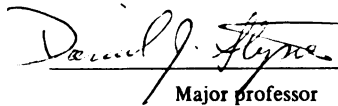This is to certify that the

thesis entitled

Potential Contributions of Communication
to Recreation and Leisure Research

presented by

Patricia Ann Stokowski

has been accepted towards fulfillment
of the requirements for

_____M.S._____degree in _Park & Recreation_
Resources

_____
Major professor

Date _November 6, 1978_

O-7639

POTENTIAL CONTRIBUTIONS OF COMMUNICATION
TO RECREATION AND LEISURE
RESEARCH

by

Patricia Ann Stokowski

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Park and Recreation Resources

1978

ABSTRACT

POTENTIAL CONTRIBUTIONS OF COMMUNICATION
TO RECREATION AND LEISURE
RESEARCH

by

Patricia Ann Stokowski

The intent of this thesis is to propose and evaluate
potential contributions of communication to leisure and
recreation research. Communication is analyzed as a process
which is central to the recreation experience. A
theoretical overview of communication principles is pre-
sented in three areas: (1) communication needs prior to
recreation participation, (2) communication processes during
the recreation experience, and (3) communication effects
of recreation participation. The communication process
model is then applied to predicting user choices for out-
door recreation; potential research hypotheses about
communication needs, processes, and effects are outlined
and critically analyzed. Preliminary conclusions drawn
from this thesis suggest a need for further research about
communication processes in recreation and leisure.

ACKNOWLEDGEMENTS

My deepest debts in writing this thesis are to my
friends and colleagues who gave generously of their time,
knowledge, encouragement, and support. I am particularly
grateful to my major professor Dr. Dan Stynes, Department
of Park and Recreation Resources, who spent countless
hours thoughtfully advising me, and who allowed me the
freedom to pursue a non-conventional topic. I am also
indebted to my minor professor Dr. Cass Book, Department
of Communication, who directed me towards "creative,
thoughtful, scholarly, original research". Dr. Don Holecek,
Department of Park and Recreation Resources, also partici-
pated as a member of my graduate committee, and gave a
thoughtful reading of the first draft of the thesis. My
mother, Mrs. Patricia Stokowski, typed the first draft.
Ed Mahoney, fellow graduate student and friend, provided
encouragement and support when it was most needed throughout
my graduate program. Joe Gibson completed an insightful
reading of the final drafts of the thesis. Thor Strong and
Glenna Wortman shared many hours of close friendship, long
discussions, and hysterical study breaks. And, although
they are too numerous to mention, the many friends who shared
my thesis-writing experiences are appreciated and thanked.

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CHAPTER I

INTRODUCTION

More than any other natural resources discipline, the
area of recreation and leisure resources is committed to the
study of the interaction between people (individuals, groups)
and the environment (physical, natural, social, perceived).
To this end, recreation research efforts must include natural,
physical, and social sciences, and must be people-oriented
as well as resource-oriented in scope. Because of the diver-
sity of disciplines, philosophies, and methodologies repre-
sented in the leisure and recreation resources field, major
difficulties concerning research orientation and measurement
arise.

Four problems can be identified which underlie many
other recreation research problems. First, recreation
research is couched in a *survey research tradition*, which
tends to produce results based on measurement of observable
behavior; these results are usually generalized to the
aggregate level (Hendricks and Burdge, 1972). Only recently
have researchers begun to study individual behavior, social
and psychological influences, feelings, knowledge, attitudes,
and beliefs which underlie these observed behaviors (Burdge,

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Buchanan, and Christensen, 1977). These studies demand methods of a different sort than those now popular in recreation research.

Secondly, the *multidisciplinary nature* of recreation research raises questions about how to find and organize relevant concepts, theories, literature and ideas. The study of leisure and recreation arose from sociology, geography, health and physical education, economics, biological sciences, landscape architecture, psychology, and a number of other disciplines (Brown, Dyer, and Whaley, 1973). Students who approach the field expecting to find a well-integrated, scientific, logical body of knowledge find that this organization remains the task of research.

The recreation field emphasizes an *applied orientation* to solving problems. Research is typically of isolated events and results are not readily generalizable over space and time (Smith, 1975). There is little theoretical consistency from one research effort to another because recreation research is mainly directed by scientists with education and training in other disciplines (Moncrief, Holecek, and Stynes, 1978). Only slight overlap among concepts, ideas, and conclusions occurs in recreation research.

Finally, the recreation field suffers from serious *definitional problems*, which breed major *measurement problems*. These are illustrated by the lack of agreement on definitions of leisure and recreation.

Definitions of Recreation and Leisure

Today, "leisure" is generally understood to mean the discretionary or unobligated time an individual has during which he can choose various pasttimes for pleasurable living. (Neumeyer and Neumeyer, 1958; de Grazia, 1962; Dumazdier, 1967; Kraus, 1971). Classical definitions of leisure, however, focus on slightly different aspects: the notion of leisure as freedom (from the Latin "licere"), or leisure as a state of mind (Pieper, 1963), or leisure as a creative activity (Aristotle, in Kraus, 1971). This variation in the classical versus the modern definition is due mostly to the need for operational definitions which outline precise categories for measurement and analysis in recreation research today.

The root of the word "recreation" is in the Latin "recreare", which means to re-create or refresh. Recreation is generally thought of as an activity chosen voluntarily by participants and carried on within their leisure time for individual satisfactions, or for the social values perceived as outcomes (de Grazia, 1962; Kraus, 1971; Twardzik, 1975). In addition, the term recreation is often used to refer to the broad field of parks, recreation, and leisure services and industries.

These definitions, however, are by no means exclusive. Researchers from major disciplines which have shaped and structured research in recreation each seem to conceptualize recreation and leisure in different ways. Measurement problems arise, particularly concerning "non-observables" in the

interaction between users and the environment. For example,
is everyone who is recreating having the same experience?
In general, are recreation experiences substantially diffe-
rent from other types of experiences? Do the various
definitions of recreation and leisure provide an adequate
basis for valid and reliable measurement? How does recrea-
tion differ from leisure?

Definitional problems, therefore, create problems in the
measurement of: (1) user preferences and choices for
recreation and leisure experiences, (2) needs and wants of
users for recreation, (3) user attitudes and opinions, (4)
quality of recreation experiences, and (5) satisfactions
and benefits received from recreation.

Communication Processes: A New Perspective

Past recreation research has been useful in describing,
explaining, and predicting certain aspects of recreation and
leisure behavior. In particular, survey research methods
have been valuable in gathering socio-economic data about
patterns of use in recreation areas and facilities, travel
behavior, expenditures for recreation opportunities, assess-
ing recreation demand, estimating recreation standards, etc.

However, there is a need in recreation research today
to study the social and psychological aspects of recreation
and leisure behavior in greater detail. With the increasing
emphasis on resource scarcity and managing the environment
for present and future generations, it is imperative that

researchers in recreation begin to develop goals for planning, research, and management which are related specifically to people.

> The field in general has largely ignored the broader social context of the role of recreation in satisfying man's needs of solving problems of the appropriate role of recreation in competing among alternative uses of resources.
>
> (Brown, Dyer, and Whaley, 1973)

Whether definitions of leisure do, in fact, represent the actual relationship of the inner, thinking person relating to the environment he recreates in, is one issue here. Defining the recreation experience by activity chosen, or by amount of time spent in recreation activities, facilitates the counting of observable behaviors; however, it is questionable whether these measurements help researchers understand the needs, motives, processes, and effects bearing upon individual participation in recreation and leisure activities. Burch (1969) claims, ". . . our standard variables -- income, age, sex, race -- furnish only a slight explanation of the extremely diverse behavior possibilities found in leisure."

The result of the past research tradition in parks and recreation is that the *processes* of behavior going on within the recreation and leisure activities are rarely studied! Central to a new approach in recreation research is the idea that the _interaction of the recreation experience -- rather than the specific recreation activity -- may be perceived as central by the participants_. For example, people may

participate in recreational volleyball games not merely because they desire that type of physical exercise and exertion, but because volleyball offers certain kinds of communication possibilities which an individual opts for over other types of interaction at that particular moment. Primary value of the recreation experience, therefore, might be the *process of interaction* and not the activity chosen or amount of time involved or money spent towards recreation participation.

Objectives

An understanding of the role of communication seems crucial in furthering social and psychological research in leisure and recreation. Therefore, in building upon past research, and in outlining new approaches to research, the purpose of this paper is to pursue the potential contributions of communication theory and methodology to recreation research. Specific objectives of this endeavor are:

(1) To examine the status of existing relation-ships between communication and recreation research as presented in the literature of each field.

(2) To describe and analyze potential contri-butions of communication to recreation research in three broad research areas:

1. Communication needs prior to recreation participation;

2. Communication processes during the recreation experience; and

3. Communication effects of recreation participation.

(3) To apply the communication processes model
toward predicting user choices for recreation
by developing testable hypotheses.

(4) To draw conclusions about the usefulness of
communication analysis and research in recrea-
tion research, and to recommend future
research directions.

Summary

This paper represents one of the first attempts to
examine the possibility of combining communication theory
and methods with recreation research in the development of
new social and psychological perspectives for leisure and
recreation. We begin by examining some current recreation
research problems (Chapter I) and introduce the notion of
communication as a process. A discussion of the communica-
tion processes model will be presented next, along with a
rationale for studying recreation in terms of communication
(Chapter II). The literature of both communication and
recreation will be reviewed (Chapter III) to identify past
efforts by researchers to combine research between these
two disciplines. Then, the theoretical perspectives of the
communication process model will be analyzed in terms of
predicting user choices for recreation (Chapter IV). In
an application of these theoretical perspectives, some
specific hypotheses will be developed (Chapter V), about the
communication processes which influence user choices for out-
door recreation activities. Finally, conclusions about the
usefulness of communication in recreation research are
suggested (Chapter VI).

CHAPTER II

COMMUNICATION PROCESSES

Although there is a tendency in studying communication
to define everything as communication, the definition
accepted for this paper is:

> Communication is the transactional, symbolic
> process which allows people to relate to and
> manage their environments by: (1) establish-
> ing human contact, (2) exchanging information,
> (3) reinforcing the attitudes and behavior of
> others, and (4) changing the attitudes and
> behaviors of others.

(Miller, 1977)

Integral to this definition is the notion that
communication is an ongoing process which has no clear
beginning nor end. The term *process* suggests an ongoing and
continuous series of interactions, where each communication
interaction is influenced by past interactions, and each
influences future interactions. The *symbolic* nature of
communication is expressed in verbal and non-verbal codes
that are developed in shared social exchange. To say that
communication is *transactional* implies that participants
in the interaction may "reciprocally affect each other's
behavior and the mutually developed rules of structure and
content" (Miller, 1977). That is, the interdependence of

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each individual with each other individual in the communicative exchange permits the development of unique patterns of verbal and non-verbal communication behaviors.

Some arbitrary divisions are necessary and useful in studying communication. Traditionally, components of communication processes are identified as source, message, channel, and receiver factors. These categories facilitate a logical, comprehensive analysis of each part of the communication paradigm, and contribute to analysis of the total interaction. If it is understood that there are multiple, ongoing, and even simultaneous interactions between and among all these factors, and that analysis is never complete but always suggestive of a complexity of influences, then these arbitrary divisions serve a purpose for research.

To understand how this definition of communication as a process is important in recreation research, it is necessary to point out here that this is not the only definition of communication accepted by researchers in that field. Indeed, there are almost as many definitions of communication as there are definitions of recreation and leisure! The definition of communication as a transactional, symbolic process seems most useful for leisure and recreation research because it is the easiest to understand when applied to recreation experiences studied over time. This paper is based primarily on that communication definition.

Why Study Recreation in Terms of Communication?

Four characteristics of communication make it particular-
ly appropriate for application to recreation research.
First, communication research deals with a basically human
characteristic: an individual's communication actions and
processes. The style and manner in which a person communi-
cates with others is at once peculiar to that individual and
also an expression of the socialization processes and environ-
mental influences around him. Thus, communication research
in leisure and recreation may lead to a better understanding
of the processes of behavior occurring at the man-environ-
ment interface.

Communication provides a multidisciplinary framework
for studying interactions between people and their environ-
ments. Analysis of the content, networks, and interactions
of an individual's communication during recreation may lead
to an improved operationalization of the components of the
recreation experience. Identification of the patterns of
communication during leisure and recreation may be useful
in building models of the recreation experience for later
use in recreation planning and management.

Further, communication research has developed from a
strong social and psychological background. Past efforts at
social analysis in recreation have failed to adequately
describe the cognitive, affective, informational, attitudinal,
and behavioral processes of the man-environment interface.
"Current research efforts are based on disciplinary approaches

and specific contexts, while the future emphasis is on the more general areas of antecedents and consequences of lesiure," according to Crandall and Lewko (1976). Since communication research has a strong basis in social and psychological principles, analysis under communication has potential for identifying the transactional, symbolic processes within a recreation experience.

Finally, communication research provides a logical, organized, comprehensive framework based on source, message, channel, and receiver factors for analysis. Analysis of communication processes considers input to the process, the process itself, output from the process, and feedback to and from each component in the process. Recreation research could profit from this systematic, orderly approach to research.

Communication research in recreation may be useful in providing a clearer definition of what it is that comprises the recreation experience. The choices an individual makes for experiences in communication may define his choices for leisure and recreation experiences too. Additionally, an individual's success in communicating during leisure may influence his later choices for leisure and recreation experiences. Studying the content, networks and processes of communication may provide a more operational conceptualization of the recreation experience. And, focusing on specific factors in the communication interaction may help

define component parts of the recreation experience in terms more appropriate for outlining specific methods of research, application procedures, and model-building strategies.

It is necessary to remember that not all leisure and recreation research problems are problems of communication. Some problems of the interrelationships between man and his environment are political, economic, ecological, philosophical, etc. Communication does not explain or account for all acts of processes, even though communication interaction is crucial to most. However, for those man-environment relationships which can be understood in verbal or non-verbal interaction, research studies based upon communication processes is appropriate. Leisure and recreation research offers one such area of potential application where the man-environment relationships may be understood better through communication.

Communication Methodology

The methods of *critical analysis* (Arnold, 1974) provide a framework upon which to determine possible contributions of communication in more adequately measuring, analyzing, and predicting an individual's use of recreational resources. Critical analysis is a subjective tool for measuring what occurs in interaction, how it occurs, and how the outcome could be evaluated within the total symbolic, transactional communication process. Critical analysis involves analysis of the components of source, message, channel, and receiver

factors in a given communication interaction; this is followed
by measurement and evaluation of consistent and repeated
communication patterns in that interaction. Drawing from
Arnold (1974) and Hart and Toulmin (from Book, 1976), some
examples of representative critical questions are outlined
below.

> Source factors: What political, social, philo-
> sophical, rhetorical, psychological, or
> other considerations affect and structure
> the presentation of messages by this source
> and the perception of him by receivers?

> Message factors: Does the sequencing, logic,
> exigency, and organization of the mes-
> sage claims, warrants, persuasive techni-
> ques, and value appeals reveal something
> about the source-receiver interface?

> Channel factors: What are the implications
> of choosing this particular medium and
> not choosing another for presentation
> of the message?

> Reciver factors: What social, intellectual,
> psychological, political, or other
> commitments have receivers made which
> may affect their responses to this
> communication message, and to the source
> and channels?

Critical analysis serves particularly well to analyze
social and psychological issues which are not fully explained
through statistical, quantitative measures. It is also a
useful tool for generating hypotheses and alternatives in
preliminary study of an issue. Therefore, it is especially
functional for analysis of the topic presented in this paper.

Research of communication processes may present
methodological difficulties for leisure and recreation
researchers unfamiliar with communication research paradigms.

Some basic communication research methods -- content analysis, interaction analysis, and network analysis -- are outlined briefly below. Recreation researchers studying communication processes should be familiar with these methods.

Content analysis is the application of critical analysis methods to verbal and non-verbal communication interaction. "It is any technique for making inferences by objectively and systematically identifying specified characteristics of messages" (Holsti, 1969). In communication, content analysis is used to determine the ratio of emphasis given each topic presented in an individual's communication behavior (Berelson, 1952). In recreation, content analysis has been applied in appraising the *Journal of Leisure Research* (Van Doren and Heit, 1973) and in natural resources planning (Stankey, 1972).

Interaction analysis is the application of rating scales and weighted evaluations to representative communication interactions. Each input to the interaction -- a source's initial statement and the receiver's reply -- is analyzed to determine the communication control and affection relationships between the source and the receiver (Swenson, 1973). In communication, interaction analysis is often applied in measuring the relational characteristics of conversation (Millar and Rogers, 1976). Interaction analysis, as used in communication, has not yet been widely applied as a recreation research method.

Network analysis is "a type of research in which relational data about communication flows or patterns are analyzed by using interpersonal relationships as the units of analysis" (Rogers, 1976). An individual's position in communication chains, the strength of his bonds with other communicators, the direction of message flows, the hierarchy of leadership in the communication setting, etc., are all components of the networks of communication interactions. In communication, network analysis has been particularly useful in studying leadership patterns (Farace, 1975), and in group and organizational communication analysis (Weick, 1969). In recreation, network analysis is most similar to socio-metric techniques used in defining activity group structure, friendship patterns, perception, etc., in environmental psychology (Altman, 1975).

The constraints of time and space allow only this cursory overview of some analysis methods commonly used in communication research. Interested readers should further consult the literature of communication and recreation for a more in-depth review of the pertinent methods.

CHAPTER III

LITERATURE REVIEW

There is little reported research pertaining to the processes of communication in recreation activities in the literature of recreation. If the study of communication processes -- expressed through communication needs, content, and effects -- in leisure and recreation activities has been attempted, it has yet to be reported.

Factors which might lead to the lack of research in this direction are: (1) the comparative youth of research in both the communication and recreation disciplines, (2) the tendency of researchers to focus primarily on theory development (as in communication) or on applied research (as in recreation) with little intermingling, and (3) the scarcity of trained multidisciplinary researchers with broad knowledge of both communication processes and recreation. Most recreation researchers, in fact, hold only a narrow view of what communication is, and how it is integral to recreation experiences.

However, some communication-related research has been pursued by recreation researchers. The multidisciplinary nature of recreation research allows for an overlap of research efforts with other related fields. For example,

the study of the transmission of messages via the mass media by environmental interpreters in recreation has produced some practical results (Sharpe, 1976). The study of man's intrapersonal communion with nature in his recreation experiences has been termed communication by some researchers (Shepard, 1977).

The study of people and the environment through environmental psychology is also valuable to development of the thesis presented in this paper.

Although there is little recreation research specifically relating to processes of communication, a review of past research based on other conceptions of communication is useful in understanding the development of this thesis. This literature review will thus consider: (1) recreation research into communications message transmission, (2) recreation research into intrapersonal feelings, and (3) recreation research in environmental psychology. These three topics are significant as the foundations upon which the study of communication processes in recreation is built.

Recreation Research into Communications Media

First references to communication in the literature of leisure and recreation appeared in the late 1950's. At that time, sociologists -- then the major researchers of leisure time use -- began to study the so-called "supreme force" of the mass media in influencing the lives of a passive audience. This "hypodermic approach" to communications viewed the media

as an all-powerful force injecting an unsuspecting public
with information (Schramm, 1971; Baurer, 1971). The term
"communications" was used to loosely describe the creation
and transmission of mass-mediated messages, and the techn-
nology or hardware associated with such practices.

The prevalence of the technology of the mass media --
television, radio, movies, books, newspapers, etc. -- in
making information available to large numbers of people,
influenced the development of two research areas in recrea-
tion and leisure research. In one, researchers studied the
information-transmission function of the mass media, an
interest which later came to be called "environmental
communications", "environmental interpretation", or
"environmental education". The other group of researchers
studied primarily the entertainment function of the mass
media, whereby use of communications media was itself consider-
ed a recreational activity. These two divisions are respon-
sible for most of the early research into mass communications
issues by leisure and recreation researchers. Both areas are
briefly described below.

Mass media for information. The major influence on
this area of study by recreation researchers occurred in the
1960's with the advent of the environmental movement and
public concern for ecological issues. The belief that many
environmental problems could be solved by educating the
public through the mass media was the basic tenet of these
environmental writers (Schoenfeld, et al., 1974).

Research concerning the content of the media and knowledge change effects became popular in the declining years of the environmental movement in the 1970's. Some studies are noteworthy. Mahaffey (1970) analyzed the effectiveness of various media used in environmental interpretation at historical areas, concluding that, in order of preference, recordings, signs, and then leaflets, resulted in best retention of environmental information. Stamm (in Schoenfeld, et al., 1974) showed a "positive relationship between media exposure and level of knowledge", when knowledge was measured by recall of facts about environmental issues. However, Bailey (1971) had earlier suggested evidence supporting the "knowledge gap" -- "the more educated segment of the audience is more likely to receive and assimilate knowledge then is the less educated segment" -- in his study of the effects of mass media presentation of information about Earth Day.

More recently, researchers have directed their attention to developing "how to . . ." guidelines for application in recreation resource management and public relations. Dick, McKee, and Wagar (1974) described methods of effective communication which involved the use of various message tactics relating style to presentation and results. Other researchers stress the technical skills of communication, or the use and ability of various media to disseminate information about environmental issues for educational purposes (Schoenfeld, et al., 1974; see also the *Journal of Environmental Education*).

One other noteworthy study in mass communications is Da Silva's "Mass Media and Environmental Affairs: A Case Study in Santos, Brazil" (1976). Da Silva studied the question, "How does the mass media influence the public's knowledge, attitudes, and behavior toward environmental issues?", in order to determine how mass-mediated information might help produce solutions to environmental problems in Santos. This study represents a preliminary effort at interpreting changes in knowledge of environmental issues within a context of the interrelated factors of source-message-channel-receiver in communication.

From a recreation research standpoint, the study of environmental communications remains significant: it represents a major attempt to study man-environment interactions based on information-transmission and knowledge retention.

Mass media for entertainment. Neumeyer (1958) was one of the first to suggest that the "mass media of entertainment represent perhaps the most significant recent development in recreation . . .". He prophetically predicted that this area of research would continue to gain importance in recreation and leisure research.

Early conceptions of the communications media as a source of vicarious interaction between man and his environment stem from the reports published by the Outdoor Recreation Resources Review Commission (ORRRC) in 1962. Research Report #22 -- "The Mass Media and Man's Orientation to

to Nature" (Kaplan and Lazarsfeld) -- signified a first organized attempt by a central research body to study recreation and leisure in terms of the entertainment value of the communications media. ORRRC #22 addressed the issue of the role of the media in "mediating between modern man and the world of nature with which he has lost contact" as a result of industrialization. Kaplan and Lazarsfeld reported the results of surveys showing that Americans were increasingly using the media for vicarious recreational and leisure purposes.

While these studies do not examine underlying communication processes, they are the first studies to recognize the importance of mass media communications analysis for parks and recreation research. This awareness is later reiterated by other recreation researchers. Kraus (1971) suggested that the role of communications in recreation was mainly in the study of the use of the media -- especially TV watching -- as a recreational activity. Other researchers studied the entertainment value of the media as related to socialization processes (Kaplan, 1960; Meyersohn, 1969; Dumazdier, 1974).

Recreation Research of Intrapersonal Feelings

The study of man's intrapersonal communion with nature was identified by the early outdoorsmen and pioneers of conservation in the United States. Thoreau, Pinchot, Muir, and Leopold are represenative authors of the conservation

movement who wrote about their experiences with nature in philosophical terms. For example, Threau wrote:

> A lake is the landscape's most beautiful
> and expressive feature. It is the earth's
> eye; looking into which the beholder
> measures the depth of his own nature.

<div align="right">(Thoreau, in Bode, et al., 1966)</div>

These talented writers were instrumental in creating a national awareness of the beauty, solitude and expanse of wild lands and natural resources in America. The "communion with nature" which they professed has often been defined as a type of "intrapersonal communication" or philosophical experience which results from a leisure and recreation experience. What occurs during recreation and leisure is communication with the self -- the internalization of information, senses, and emotions -- or, a philosophical, mental experience.

> Feelings, sensations, dreams and thoughts are
> the sort of phenomena which are usually clas-
> sified as "mental". In calling them mental,
> philosophers usually mean that, unlike physi-
> cal objects, they are "private" or directly
> knowable by one person only.

<div align="right">(Edwards, 1973)</div>

In addition to the literary essays of these philosopher-naturalists which identify mental experiences as components of recreation, one major analysis of intrapersonal communication in parks and recreation settings presents a prototype for later research. Nash's <u>Wilderness and the American Mind</u> (1973) traced in historical overview man's relationships to

wilderness and the land, and his internalization of the
feelings and sensations particular to communion with nature.

Although there is only very limited research of the
feelings, sensations or mental communication processes in
a recreation and leisure context, this notion does provide
an alternative explanation for why people engage in certain
kinds of recreation activities. Some leisure and recreation
experiences are best experienced alone. Indeed, one may
question whether any part of the recreation or leisure
experience can be fully communicated to others. In addition,
some aspects of the interaction between man and his environ-
ment may be so complex or subtle that they cannot be eval-
uated under traditional methods and measures. Nash suggest-
ed that wilderness presented this type of experience. Other
researchers suggest that art, painting, and nature photo-
graphy are also similar communication experiences (Shepard,
1967; 1977), where the recreation or leisure experience is
internally-mediated.

Recreation-Related Psychology Research

The relatively new field of environmental psychology
offers a multidisciplinary perspective for studying some
problems in recreation. Scientific study focuses on

> . . . understanding how and why people per-
> ceive the environment as they do and how
> these perceptions, whether grounded in real-
> ity or myth, alter the patterns of use and
> occupance of that environment.

(Stankey, in Winters and Winters, 1977)

Environmental psychology research has particular application to recreation and leisure research topics. For example, Piaget's (1962) and Kerr's (1962) observations of child development and learning have implications for play theory and leisure planning. Much of the developing therapeutic recreation emphasis and leisure counseling studies are products of combining psychological analysis with leisure and recreation education. See, for example, Frye and Peters (1972), Lewko (1976), and Chase (1977).

Additionally, the perception studies of natural and man-made environments are importnat for leisure and recreation resources planning. These include practical, applied approaches to: landscape description and evaluation, environmental design, and spatial analysis and behavior (Lynch, 1960; Hall, 1966; McHarg, 1969; Lee, 1972; Cheek, Field, and Burdge, 1976). Noteworthy theoretical studies on perception have been recently suggested by Wohlwill (1976), Zube (1976), and Knopf (1977).

A relatively large portion of the recreation and leisure research in environmental psychology is of a very applied nature, and deals mainly with problems related to active outdoor recreation experiences. Mercer (1976) says, "one could almost be forgiven from thinking that adventurous outdoor activities, broadly defined, are by far the most popular forms of recreation in the world today."

The research on wilderness perception and use has been
particularly well-developed. Perception and quality of the
aesthetic experience was measured in psychological terms by
Shafer and Mietz (1969), Peterson (1974a), and Swan (1977).
Heberlein (1973), using the "wildernism scale" developed by
Hendee (1968) to measure user attitudes concerning wilderness
resources, found that "attitudes to wilderness are related
to numerous central beliefs, but are relatively unrelated
to the demographic characteristics of users." Rossman and
Ulehla (1977) examined the psychological reward values
associated with wilderness use. Peterson's (1974b) study
of managers and canoeists in the Boundary Waters Canoe Area
remains a landmark study in recreation, with respect to de-
fining both needs and motivations for wilderness participation,
and a social-psychological basis for management decisions.

Even though these studies reflect a growing concern
with psychological analysis in recreation, some problems
are evident. Craik (1973) points out that:

> With few exceptions, research on the diverse
> forms of outdoor recreation has focused upon
> demographic and sociological variables (of
> participants); a psychological understanding
> of them remains quite a way down the trail.

In fact, in recreation, only limited psychological
research of personality attributes, dispositions, needs,
attitudes, or motivations has been attempted. Despite the
idea that ". . . lesiure activity choices (may be) shaped by
personality traits or basic personality needs rather than

social factors . . ." (Burch, 1969), Neulinger (1974) says "the main problem in trying to predict leisure behavior from personality traits is that any given activity may fulfill different needs for different people or even the same person at different times." Burch (1969), Witt and Bishop (1970), Field and Burdge (1972), Mercer (1976), and Wapner, Cohen and Kaplan (1976) have all identified this difficulty in recreation and leisure research.

Yet it is precisely this personality research in environmental psychology which has major importance for the study of the processes of communication in recreation. Research into personality characteristics of both sources and receivers in communication interactions is part of a broader analysis of communication processes. Some specific environmental psychology research which may have implications for development of a communication research emphasis in leisure and recreation is reviewed briefly below.

Bultena and Klessig (1969) studied a group of California campers to determine the basis for satisfaction and other benefits received from recreational camping. Their study was one of the first to suggest that social interaction during the recreation experience was an indicator of the perceived benefits of that experience. "Important to these campers was the opportunity afforded for meeting congenial people, enjoying good fellowship, and experiencing family togetherness."

The psychological basis for human needs was studied by Moss and Lamphear (1970), and later Ritchie (1975), Altman (1975), and Becker (1976). Moss and Lamphear used data from questionnaires given to college students in clustering recreation activities by perceived similarity. Although the Moss and Lamphear findings are somewhat generalized (for example, "several activities may be related to the same or similar needs"), their study does suggest that some recreation and leisure activities may be perceived as similar in meeting certain stated needs or drives of the user.

Driver and Knopf (1977) used a variation of the Personality Research Form to study outdoor recreators engaged in different activities. Their results indicate that personality traits probably influence recreation activity choice (although more research is needed to confirm this), and that personality variables are significantly related to the amount of participation and importance of desired benefits or consequences from the experience.

Awareness of and preference for different environments was discussed in terms of an individual's cognitive framework by S. Kaplan (1973) and later Leff, Gordon, and Fergussen (1974). Cognitive mapping theory is presented as a new approach in recreation research to discern how individuals choose their environments based on their needs for certain kinds and amounts of information. Similarly, Wapner, Kaplan, and Cohen (1973) suggest a broad

psychological mapping approach -- where components include past experiences, the exigency of the moment, the physical setting, and the behavior resulting -- to understand how man relates to his environment. At present, basic or applied research in recreation utilizing these mapping approaches is relatively scarce.

Mehrabian and Russel (1974) proposed a verbal communication approach for measuring information rate in various environments. They suggest that "information rate . . . may characterize (1) the environment or setting, and (2) the task performed in that setting." Their study represents a unique approach to measuring environmental perception through verbal communication.

In general, environmental psychology research of attitudes, knowledge, and personality, may find wide application in the developing communication process research in recreation and leisure. How these personality and environmental characteristics affect subsequent communication potential in recreation activities is a useful extension of this research.

Summary

A review of recreation literature suggests that there is a shortage of research about communication processes in recreation and leisure. The communication-related research completed up to now by recreation researchers is generally

based on other definitions and conceptions of communication. Three areas of research which have particular significance for the proposed communication process approach to recreation research were identified as: (1) recreation research into communications message transmission, (2) recreation research into intrapersonal feelings, and (3) recreation research in environmental psychology. These three areas form the foundation for the new communication process approach.

CHAPTER IV

PREDICTING USER CHOICES FOR RECREATION:
THEORETICAL PERSPECTIVES

A new approach to recreation research -- an approach
based on the study of communication processes -- has been
suggested towards resolving some recreation research prob-
lems. The literature of recreation identifies a general
shortage of research about communication processes in
leisure and recreation at this time. This chapter will
examine the theoretical basis for the communication process
approach in terms of predicting user choices for recreation.
Later, these theoretical perspectives will be applied in
developing some specific hypotheses about predicting user
choices for outdoor recreation activities.

The communication process approach to analysis of
recreation experiences is based on an understanding of the
processes of symbolic, transactional communication which
occur in recreation. The recreation experience, analyzed
in terms of communication processes, may be subdivided into
three parts: (1) communication needs prior to recreation
participation, (2) communication processes during recreation,
and (3) communication effects of recreation participation.
Each part is briefly discussed below with respect to predict-
ing user choices for recreation.

One point must be noted. Even though communication needs, processes, and effects are analyzed separately in the following pages, the reader should remember that each of these parts is a component of the ongoing process of communication. Each component part interacts with each other part, and through feedback, influences the outcome of the communication process. The interactive nature of these component parts makes for complex analysis which should be undertaken only after the researcher has a clear understanding of the separate parts. This paper examines the component parts of the communication process as an introduction for recreation researchers unfamiliar with communication research. Complex analysis of the interacting components will build from this introduction.

Traditional User Choice Models in Recreation

An examination of traditional user choice models in leisure and recreation provides the necessary background for presenting the communication process approach to predicting user preferences. Traditional user choice models in recreation research draw primarily from socio-economic analysis of the recreation experience. The most influential of all past models is Clawson and Knetsch's (1966) model which structures the recreation experience along a continuum including: (1) anticipation of the recreation experience, (2) travel to the site, (3) the on-site experience, (4) travel from the site, and (5) recollection

of the experience. This model has been widely applied in recreation research because it logically divides the complex recreation experience by activity, time, and space referents and constraints.

Clawson and Knetsch, and other recreation economists, are responsible for much of the recreation research on predicting user choices for (demand), and consumption of, recreation resources. They suggest that a recreator will evaluate his choices for recreation participation in terms of his socio-economic status, the perceived and actual benefits of recreation, and the time and travel costs associated with the experience. The recreator will participate in a given activity if the perceived benefits outweigh the perceived "costs". There is a wealth of literature in recreation economics which presents more detail than is possible here. Particularly useful analyses of user choice models for recreation participation from an economic perspective may be found in Wilkinson (1973) and Maw (1974).

Defining user choice through marketing approaches is another popular area of recreation research. Marketing researchers analyze recreation activities as "products" or "goods" which have predictable life-cycles. The "marketing mix" (that is, the combination of factors which influence the product's marketing potential) is designed to maximize the appeal of the recreation product

to the consumer. LaPage (1974) presents a comprehensive overview of marketing research models useful for recreation planning, and King and Richards (1977) explore recreation choices through a consumer behavior model.

More recent approaches in recreation choice models focus on different variables influencing user choices. Driver and Brown's (1975) behavioral model of the recreation experience is especially important. Their social and psychological model of recreation demand and recreation benefits closely follows the continuum of Clawson and Knetsch, but also incorporates a behavioral perspective which addresses:

> ...why a person recreates, what he or she does while participating, what he or she derives personally from the participation, and the effects of personal and environmental influences on recreation behavior.

This model is noteworthy because it attempts preliminary conceptualization of recreation based on social and psychological determinants of a user's choice for recreation participation. Driver and Brown's model represents the link between the economic demand models of past research and the communication processes model proposed here.

Recreation Choices Defined by Communication Processes

If communication is an integral process to recreation and leisure participation, then the communication needs, processes, and effects of interaction are created by and also later influence the experience of the recreation activity.

An individual approaches the recreation experience with certain communication *needs* which he seeks to satisfy through interaction in recreation. His choice to participate in a specific recreation activity depends partly on the *content and relational aspects* of his past communication interactions within and outside that activity, which influence his later decision-making regarding recreation participation.

During and after participation in the chosen recreation activity, certain communication *effects* and consequences occur which may influence some parts of that individual's social, psychological or cognitive structure. Changes have happened because of the processes of communication in the recreation experience. These changes are the "feedback" which may influence that individual's future choices for recreation participation. Analysis of communication needs, processes, and effects in recreation and leisure has major importance in understanding the potential role of communication in leisure and recreation research.

Communication Needs Prior to the Recreation Experience

Individuals participate in recreation to fulfill a variety of needs or desires (Kaplan, 1960; Mercer, 1973; Dumazdier, 1974; Kelly, 1974). These needs include, but are not limited to, needs for physical exercise, pleasure, relaxation, escape from work pressures, challenge and risk-taking, communication interaction, creativity, and others.

This section is particularly concerned with the communication interaction needs which are a prelude to recreation participation. "Communication needs" are defined as those needs (including drives, tendencies, motivations, and other goal-oriented impulses) which an individual seeks to satisfy through communication interaction with others.

Book (1977) has identified four communication needs which can be satisfied through interaction: (1) the need to confirm the self-identity, (2) the need to have control in relationships, (3) the need to display and receive affection, and (4) the need to achieve competency in life-roles through information processing. Two additional needs which may be fulfilled through communication are proposed here: (5) the need to learn social norms, and (6) the need for social experimentation.

Sources and receivers seek to satisfy or fulfill communication needs through communication interaction. If recreation and leisure activities are viewed as interactions where there is potential for communication to influence the outcome of the recreation experience, than a generalization which can be tested is:

> Individuals participate in leisure and
> recreation activities to fulfill communi-
> cation needs. Communication needs include:
> (1) confirmation of the self-identity, (2)
> control in relationships, (3) display and
> receiving of affection, (4) processing in-
> formation, (5) learning social norms, and
> (6) social experimentation.

Self-identity needs. Sources and receivers bring to any leisure and recreation activity a background of social-psychological characteristics and traits developed through their past experiences. The "self-identity" is one such set of characteristics. One of the main functions of communication between two people is, in fact, the development, presentation, and validation of the self-concept, or mental picture, of how each individual perceives himself in relation to others around him (Cushman and Craig, 1976). If the recreation experience is viewed as a place where interpersonal communication occurs, then participation in recreation may be one way in which an individual satisfies his needs for confirmation of his self-identity. He may choose recreation activities which allow him the opportunity to communicate his self-concept in a way he desires.

If some recreators at any given time are at the same level of self-concept development, and have similar communication characteristics and other needs, they might choose similar recreation activities to fulfill these needs (all other things being equal). These recreators might not all choose the same activity, but may choose from a range of activities which offer perceived similar opportunities for self-concept confirmation. These recreation activities could be considered substitutes for one another based on the communication patterns which occur there.

Need for control in relationships. In relationships, the need for control is best satisfied when an individual

can direct the rate and flow of information and emotion in the interaction. An individual must learn the rules and processes of verbal and nonverbal interaction, follow the norms of acceptable behavior, gather and transmit information through appropriate channels, etc., as he attempts to perform leadership roles. These control or leadership positions are verbally and non-verbally negotiated among individuals during the course of the interaction, as the participants attempt to control the patterns of communication and achieve leadership positions in that activity.

Mastery of the communication patterns of a recreational activity by achieving control in relationships involves compromise and continuous negotiation, since the communication situation is always changing in response to a changing social and physical environment. An individual may choose to participate in recreation based on the nature of the control in relationships which he can negotiate there.

Need to display and receive affection. Emotion is integral to recreation activities. An individual's need to display and receive affection is one asepct of emotion which may be satisfied through communication in recreation. Affection refers to both verbal and non-verbal communication supportive of an individual's self-identity or behavior.

Some people are more affectionate or have a greater need to receive verbal or non-verbal affection than others. The amount of affection displayed, the kind or nature of

the affection, and the intensity of affection, are factors
influencing satisfaction of this need. Recreation usually
offers a more relaxed, experimental, socially-acceptable
setting for displaying and receiving affection.

One reason supporting differential participation in
recreation and leisure activities is the potential to
dramatize or play-act certain situations which are not part
of the typical behavior patterns of an individual. To experi-
ment in displaying and receiving affection through recreation
is a learning experience for a recreator who may have little
opportunity to practice affection display outside the recrea-
tion experience. Those individuals who otherwise fail in
their attempts to display and receive affection may gain
support and encouragement for their actions and overtures
in recreation settings where the social constraints are
less imposing.

Need to achieve competency in life-roles through in-
formation processing. Individuals act and react according
to messages given and received. Competency in life-roles
(defined here as how well individuals relate to and manage
their environments) is partially accomplished as a result
of the acquisition of information by individuals through
recreation partcipation. In achieving greater competency
in life-roles, two characteristics demand attention: the
need for a certain *amount* of information, and the need for
certain *kinds* of information.

Those individuals who receive greater amounts of information, greater amounts of information they perceive as useful, and greater amounts of information others perceive as useful, will show greater competency in performing their assumed roles and also greater success and satisfaction in communicating. As long as they continue to receive information, they will continue to retain their positions of control in that hierarchy. If an individual cannot satisfy his needs to attain enough information that complements the role-playing he desires, he may tend to join other (recreation) groups which better fulfill his needs for information.

What processes must recreators understand about the information they receive in order to satisfy needs to achieve competency? First, they must learn the raw bits of data and information about other participants and the environment where the recreation activity occurs. Secondly, they must learn the norms and rules by which information travels within the communication networks, including a working knowledge of the social structure and roles other individuals play in the transmission of information. And third, they must learn how best to use the channels of communication to achieve desired effects when they create their own messages.

Need to learn social norms. Particularly important effects of engaging in recreation and leisure activities are the processes of socialization which are learned there.

Through recreation, the rules and norms of the social system and organization, and culture, are passed from one individual to another (Dumazdier, 1974). Communication interaction is the primary vehicle for these specialized and often unwritten rules of acceptable behavior to be transmitted.

Social and cultural rules and norms define appropriate and expected communication and behavioral processes. Recreation activities maintain, to a large extent, these social and cultural rules and norms (Prinkey, 1976), while simultaneously allowing some space for social deviance, experimentation, and non-conformative behavior. Even though the rules and norms of communication are promoted, they are not heavily monitored or enforced. Therefore, an individual may attempt to practice radical or new behavior actions within the recreation setting, and will choose recreation activities which allow him this freedom.

Need for social experimentation. Recreation and leisure activities may also fulfill communication needs for social experimentation and challenge. "The leisure system... provides a relatively open opportunity space as input to the socio-cultural system," according to Stephansky (1976). In its broadest sense, social experimentation occurs as a component part of all other communication needs mentioned above.

Recreation activities are often undertaken because they allow experimentation without strong social commitment

and without strict social constraints. In fact, one aspect
of play behavior identified by researchers for its social
value is its detachment from reality (Huizinga, 1950; Kinget,
1975).

Play-acting in recreation through communication allows
an individual to experiment with leadership roles, affection
display, and processing information. Experimenting with
social norms and rules in recreation settings generally al-
lows an individual to make mistakes within reasonable bounds
in a safe setting without penalty of strong social disfavor.
Recreation activities, then, may be classified by the kinds
and extent of communication experimentation they allow.

Communication During the Recreation Experience

Analysis of verbal and non-verbal processes in communi-
cation must necessarily be based on the dynamic, transac-
tional nature of the interaction process. To this extent,
the analysis of communication during the recreation experi-
ence is never complete because it must always be made in
retrospect -- yet, the situation has changed even in some
small ways because of the processes of interaction which
have occurred in that setting. It may be possible, however,
to identify some regular and repetitive patterns of communi-
cation during recreation which can be measured and analyzed.

Recreation researchers have, in the past, failed to
study communication during the recreation experience. It

is the contention of this author that an integrated para-
digm which analyzes the characteristics and interactions
of source, message, channel, and receiver components in
communication can be applied towards predicting user
choices for recreation. Communication during the recrea-
tion experience may be an indicator of why individuals par-
ticipate in recreation, and how they choose specific activi-
ties to participate in. It may be found that the processes
of communication, rather than the activity itself, are
perceived as central by the users of that recreation source.

Drawing from this discussion is a generalization which
can be tested:

> Individuals participate in leisure and
> recreation activities for the processes
> of communication which occur in that
> interaction. Analysis of source, message,
> channel, and receiver components of the
> interaction may help explain and predict
> why users make decisions to participate
> in specific recreation activities.

Source factors. Development of social and psychologi-
cal characteristics, and past learning and experiences,
are important pre-existing conditions which influence the
source to structure messages in particular ways to given
audiences. His learned skills in communicating are impor-
tant constraints on how well the source develops and
presents his message. In addition, the audience has cer-
tain preconceptions about the source based on their past
interactions with him, as well as on their social and psy-
chological traits and past learning and experiences. These

relational aspects of the source-receiver interface may be studied in terms of predicting user choices for recreation.

The intent of the source in communicating, and the exigency he is responding to by the act of communicating, affects the amounts and kinds of messages he structures. A source whose intent is to persuade his audience to attempt high-risk recreation activities (like parachuting or cliff diving) will implement different communication strategies and messages from a source trying to persuade his graduate student colleagues to join him at a local pub after an exam.

Non-verbal communication characteristics also influence how well a message is perceived by receivers. Arnold (1974) identified some non-verbal features of spoken communication as: rhythmical features of delivery, vocal pitch and rate variety, dialectical features, intelligibility, and gestural behaviors. There are also other situation-specific non-verbal factors which influence a receiver's perception of a communication message. In predicting user choices for recreation, analysis of non-verbal communication which occurs during the recreation experience may indicate an individual's preferences for specific kinds of communication in recreation settings.

Message factors. Along with the relational aspect of communication among participants in recreation groups, the content of the messages that are communicated may suggest reasons for why individuals participate in that

activity. Individuals create, develop, and present mes-
sages with a certain intent or purpose. Some messages are
persuasive, some are for humor or entertainment, some con-
tain information, some express uncertainty. Each message
or series of messages is a reflection of the source, channel,
and receiver factors interacting in a given setting.

When a source presents a message, he uses a specific
vocabulary, sentence structure, organization of ideas,
method of presentation, and other aspects of style, form,
and structure. A source may employ such message content
components as: verbal devices of analogy, simile, metaphor,
or definition; simple or abstract ideas; juxtaposition of
ideas and images; emotional appeals; persuasive arguments;
etc. How the source uses stylistic features to create
structures and forms which receivers can perceive is a func-
tion of his goals or intent in communicating.

Message analysis -- or analysis of what is said and
how it is said in an interaction -- may help define user
choices for recreation participation. Some general ques-
tions might be explored. For example, do individuals at-
tend specific recreation activities for the kinds of
messages they receive there? What are the characteristics
of these messages? Can recreation activities be categori-
zed by specific message characteristics? How does the
content of a given message influence an individual's choice
of activity? What needs are satisfied, and what effects

are produced, which influence later message creation, development, and presentation by the same source? These are pertinent questions for preliminary study of communication messages in recreation activities.

Channel factors. Analysis of any communication interaction must consider the implications of the use of different channels in transmitting messages. Channels can be described as those lines through which messages flow. For example, a television, a public speech, a written letter, a touch, etc., are all channels through which a source sends messages to receivers. Channels can also be described as interpersonal, mass-mediated, organizational, etc. A television is a mass media channel; a touch is an interpersonal or non-verbal channel.

The environment, the characteristics of the message, the characteristics of and relationships between sources and receivers, and the intended effects of the message, are all factors that a source must consider in choosing a channel to present a message. Some channels are better than others in achieving desired effects. For example, if the goal of a source is to distribute informational messages to a diverse group of people, mass-mediated messages are better than interpersonal messages for achieving that purpose.

Different channels allow receivers to perceive different parts of the communicated message in different ways.

This is termed the "agenda setting" function (Boorstin, 1974) of the media or channels used. Each individual receiver is influenced by a specific channel in various and unique ways, depending on his past communication experiences, past learning, and social and psychological traits.

Channels can be manipulated. The choice to employ a channel which is best suited to the message, forms, style, content, and structure, to source dispositions, to receiver attitudes and expectations, and to situational demands, will result in the greatest effectiveness in transmitting messages. In predicting user choices for recreation activities, a useful study would be to determine: (1) the channels used to deliver messages to recreators, (2) the influence of the channel on the kinds of messages that could be developed and presented, (3) the recreator's perception of the channel and message, and (4) whether there is a relationship between the channel used and the choice to participate in a given recreation activity. Further extensions of these ideas are useful for research into communication processes in recreation.

Receiver factors. Like the source, the receiver brings to the communication interaction some past learning and behavior influences, social and psychological traits, and certain needs and goals. This background structures how well he responds to the source, message, and channel components of the communication interaction.

As a general rule, individuals attempt to maintain cognitive consistency and balance in their attitude, belief, and value structures (Heider, 1946; Newcomb, 1953; for an especially good review of the cognitive balance theories and other related social-psychology theories, see Shaw and Costanzo, 1970). This means that individuals will selectively interpret messages in a personal way which "fits" their existing cognitive state at that time. Arnold (1974) suggested three premises about receivers in relation to spoken messages (these may be generalized to other channels and messages, too):

> (1) The consequences of a speaker's utterances always occur within the (receiver's) world of awareness, and they occur under the "rules" his past experiences have given him.

> (2) The concepts that determine a (receiver's) reactions may or may not closely resemble the concepts symbolically offered verbally by the source.

> (3) As they interpret, (receivers) always add to or take away from the intended meanings of what they hear.

For example, those recreators who are members of outdoor recreation organizations or clubs have internalized some group attitudes, norms and manners of perception. This affects how they will selectively hear and respond to messages which are/are not consistent with organization policies, goals, or attitudes. Receivers will usually be reinforced by those messages which support their views,

and tend to disregard those messages which are not within their cognitive structures (Roberts, 1974). How a receiver structures his cognitions would therefore influence his choices for assimilation of recreation information, leading to possible participation in a recreation activity.

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Communication Effects of
Recreation Participation

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According to Atkin (1975), communication effects occur as a result of an individual's *awareness* of an issue, which induces him to seek out *exposure* or involvement in that experience, and to *selectively* attend to various parts of that experience which he finds most meaningful. Greenberg (1977) identified five major areas of effects in mass media analysis; these can be applied in study of other communication channels too. These effects include: (1) cognitive effects, (2) informational effects, (3) effects on attitudes, (4) effects on affect or emotions, and (5) behavioral effects.

Drawing from this discussion is a generalization which can be tested:

> Individuals who participate in leisure
> and recreation activities receive
> effects related to communication inter-
> action. Communication effects include
> cognitive, informational, attitudinal,
> affective, and behavioral changes.
> These effects influence later recrea-
> tion choices.

Cognitive effects. An individual's perception of how things fit together as a whole in a total system of

impressions is termed his cognitive structure (Bem, 1970). This structure is composed of beliefs, expectations, and aspirations which structure the individual's understanding of relationships and meanings among events and experiences. Cognitive communication effects can be described as follows: (1) communication structures our *beliefs* about what is true or false, (2) communication structures our *expectations* about what people, issues, and the environment are like, and how we should relate to them, and (3) communication creates potential for *aspirations*, particularly role-modelling and goal-oriented behaviors.

In an individual's total cognitive system of meanings and interrelationships, changes in the intensity of ideas will occur over time. New experiences may be assimilated into the existing beliefs, expectations, and aspirations structure if they are consistent with existing cognitions. Short or long term cognitive changes may result, and may later influence behavior.

In terms of recreation choices, it is likely that an individual comes to a recreation experience with some expectations of what the environment, activity, and other participants are like. This existing cognitive structure has been formed from the individual's past communication interactions in similar recreation situations. The individual may choose to participate in the new activity if he perceives that the processes and activity which occur

there "fit" with other aspects of his cognitive structure. As a result of the communication processes which occur in the new experience, the individual may modify or reinforce his existing cognitive structure.

Informational effects. Of all the effects which may occur as a result of communication interaction, informational effects may be the easiest to measure in research. These effects can be defined as changes in information level, knowledge gain, or understanding, which an individual experiences over time as a consequence of exposure to messages. These changes are monitored by measuring at different times an individual's recall of both single "bits" of information, and also generalized "processes" of information.

Information seeking behavior begins when an individual perceives an inconsistency in, or lack or information regarding, his own levels of knowledge or understanding of an issue. He will selectively seek out credible sources to supply this information. Often information is assimilated without conscious decision by the individual. This is particularly true of some mass-mediated information which is widely disseminated and perhaps partially subliminal.

In predicting user choices for recreation, informational effects may be measured to determine the kinds of information bits and processes an individual learns during the recreation

experience. An individual may participate in specific activities if that type of recreation provides needed information better than a non-recreational activity or another recreational activity. The informational effects may then influence later choices made by the individual for recreation participation.

Effects on attitudes. An attitude may be defined as a disposition or tendency to feel a certain way about an object or categories of objects. Attitudinal effects occur when individuals incorporate incremental changes in their attitude structure in three ways: (1) by *reinforcement*, or change in the intensity of an existing attitude, (2) by *creation*, or the development and establishment of a new attitude where none were previously, and (3) by *conversion*, or a change in attitude from one valence, positive or negative, to the other valence.

Attitudes are developed as individuals learn about people and objects by associating certain characteristics with each. Attitude development may be accomplished as a result of communication processes. Over time, these attitude effects may be reinforced and assimilated into behavior patterns, or dropped from the behavior repertoire.

Analysis of attitudinal effects resulting from recreation participation may reflect changes in attitudes which influence an individual's choices for later recreation participation. By studying how the processes of communication

in the recreation experience influence attitude formation,
some generalizations and hypotheses might be made concern-
ing perceived quality and value of the recreation experience
to the participant.

Effects on affect. The wide range of emotional re-
sponses which occur as a result of communication interac-
tion are termed effects on affect, or emotional effects.
These emotional responses include such feelings as happi-
ness, sympathy, joy, apprehension, fear, altruism, love,
etc. These emotions usually have corresponding physiologi-
cal components based on arousal tendencies.

Schachter's Two-Component Theory of Emotion (Berscheid
and Walters, 1974) hypothesize that emotional responses are
a product of both: (1) physiological arousal, and (2) la-
belling of the affective responses. Knowledge of these
affective responses comes to an individual from both within
and outside himself. He perceives the physiological changes
occurring as a result of some experience, and labels these
feelings according to accepted socio-cultural norms and
values. His evaluation of the strength of the arousal
results in differential labelling of the affect response
or emotion based on what situational effects are perceived
to "cause" it.

It is difficult to change or remove effects on affect
or emotion. Once an individual internalizes his emotions
as part of his cognitive structure, he will likely integrate
these into his behavior structure.

This has implications for predicting user choices
for recreation. Individuals may choose to attend recrea-
tion settings based on their past experiences of receiving
pleasurable emotional effects; likewise, they may refrain
from participating in those activities which have had nega-
tive effects. Although the negative effects may not be
directly correlated with the communication processes of
that recreational acitvity, the affective response may
still influence behavior.

Behavioral effects. The long or short term effects
of incorporating any of the above effects alone or in com-
bination into an existing repertoire of acting and react-
ing are the behavioral effects of communication. The inter-
play of all influencing communication factors makes these
the most complex effects to evaluate.

Some behavioral effects of communication in leisure
and recreation activities result from the satisfaction (or
lack of satisfaction) of an individual's needs through the
processes of communication during recreation. Observable
recreation behaviors such as buying recreation equipment
and products, willingness to pay for recreation experiences
and opportunities, actual visitation to parks, and other be-
haviors, may be directly associated with specific combina-
tions of awareness and exposure to certain channels of
communication.

The purpose or intent of a source in communicating
is often to direct, change, reinforce, or otherwise

influence a receiver's behavior or potential to behave in certain ways. Success depends on the interactions among communication components in the situation.

It is generally held that behavior is highly correlated with attitudes: behavior is assumed to be the outer representation of inner beliefs, attitudes, knowledge, and value components in an individual's cognitive structure. However, a more realistic view would suggest that behavior is an individual's tendency to perform based on the constraints of situation, skill, opportunity, ability, attitudes, needs, and a host of other influences. Attitudes may be an indicator of behavior, especially if they are strongly held, very specific, or socially-confirmed through action (Jacobson, 1978). Nevertheless, the communication situation, and the communication processes occurring in that situation, also influence behavior potential.

Although verbal and non-verbal communication may be the best indicator researchers have now for measuring an individual's potential to behave in certain ways, it is important to remember that what an individual *says* he will do and what he actually *does* may be two very different things. Communication content does not always reflect an individual's tendency to behave in certain ways. Individuals communicate and behave in ways that are desirable and profitable to them at a given time and in a given situation.

Summary

This chapter has identified a specific recreation research problem -- predicting user choices for recreation -- and examined the theoretical communication principles which may be helpful to researchers in addressing this problem. The recreation experience was subdivided into three parts for clarity in analysis: (1) communication needs prior to recreation participation, (2) communication processes during the recreation experience, and (3) communication effects of recreation participation.

It was noted early in this chapter that subdividing the communication process in recreation into needs, content and relationships, and effects components facilitates a logical analysis of the recreation experience. Recreation researchers are generally trained to view the recreation experience along a continuum of "before-during-after" factors. Defining the communication process in these terms creates insight about communication processes in recreation.

However, because communication is a symbolic, transactional, ongoing and continuous process, analysis of communication at one point in time is never complete. That is to say, communication needs do not only occur prior to recreation, but may become evident during or after recreation too. Likewise, communication effects may occur at any point in the recreation experience, not only at the end of it. Communication processes are much more complex,

and communication analysis is much more detailed, than
is presented here. The outline followed in this paper,
though, is useful for recreation researchers who have
little communication research background. Using this out-
line, they will achieve the necessary introduction to com-
munication processes in recreation research, and this can
be applied in the future to more complex interaction prob-
lems.

CHAPTER V

PREDICTING USER CHOICES FOR RECREATION:
APPLICATIONS OF THE COMMUNICATION MODEL

What influences prompt an individual to engage in
leisure and recreation activities? More explicitly,
what motivates an individual to choose, from the realm
of all possible recreation activities, the specific few
he consistently participates in? The major contention
of this paper is that individuals opt for certain recrea-
tion experiences partly because of the processes of com-
munication which are likely to occur there.

Some questions about the interrelationships between
communication and recreation arise at this point. First,
do individuals consciously choose certain kinds of communi-
cation interaction at different times to fulfill certain
needs? Do some people consistently choose to be in large
groups, and others choose to be with few people? And, what
are the circumstances when these differential choices occur?
Secondly, if individuals make choices for the kinds of
interactions they prefer, do they consciously choose cer-
tain kinds of recreation or leisure opportunities based on
the types of communication offered in those activities?
And third, does an individual's success in communicating

during recreation and leisure influence his later choices for recreation and leisure participation?

One way to address these issues is to apply the theoretical perspectives developed in Chapter IV to analysis of a specific recreation issue. In this chapter, the recreation problem of predicting user choices for leisure and recreation is addressed from an empirical perspective.

The broad topic of *outdoor recreation activities* has been selected to provide a focus for discussion of user choices for recreation. This topic is general enough to allow some flexibility in scope when discussing communication processes; it is also specific enough to define rather clearly a range of researchable problems which researchers can identify. In addition, there is a moderately large, available body of literature and past research about predicting user choices for outdoor recreation resources. The communication process model will expand on and add to this research.

In this chapter, then, the following format is used: (1) a brief overview of the literature about outdoor recreation activities is presented and critically analyzed, (2) the communication principles outlined in Chapter IV are applied to developing and explaining specific hypotheses about predicting user choices for outdoor recreation activities, and (3) methods of analysis for testing the hypotheses are briefly explained. Some further hypotheses

developed from the application of the communication pro-
cess model in recreation are discussed at the conclusion
of this chapter.

Outdoor Recreation Literature

Outdoor recreation activities include outdoor swimming,
boating, fishing, hunting, skiing and other winter sports,
hiking, driving for pleasure, nature walks, picnics, camping,
and other activities which involve use of outdoor recreation
resources (Mueller and Gurin, 1962). Most of the analyses
of demand for and participation in outdoor recreation activi-
ties stems from a socio-economic tradition (Mueller and Gurin,
1962; ORRRC Commission Staff, 1962; Clawson and Knetsch,
1966; Kalter and Goose, 1970; King and Richards, 1977). In
fact, economists have made major contributions to quantify-
ing numerous aspects of the recreation experience (Wennengren
and Johnston, 1977).

Sociologists and psychologists have also made some
notable advances concerning qualities of users engaged in
outdoor recreation and leisure activities. Stankey (1977)
identified some social components of recreation choices;
these can be coupled with economic analysis for application
in recreation planning. Driver and Knopf (1977) studied
personality characteristics of users and benefits associated
with outdoor recreation participation. Environmental prefer-
ences associated with user choices for outdoor recreation
have been studied in depth by Lucas (1964), Hendee (1968),

Shafer and Mietz (1969), Clark, Hendee, and Campbell (1971), Heberlein (1973), R. Kaplan (1974), Peterson (1974a, 1974b), among others.

Although outdoor recreation research has made progress concerning user choices for recreation, some problems are still evident. Much of the past outdoor recreation research has been exploratory, based on small samples, and somewhat inconclusive (Driver and Knopf, 1977). There are many "before-after" studies, or studies performed only at one point in time during the recreation experience; longitudinal studies (over time) may be more beneficial in understanding the recreation experience (Brown, Dyer, and Whaley, 1973). Some psychological measurement indices such as the Personality Research Form (described in Driver and Knopf, 1977), the Environmental Response Inventory (described in Craik, 1973), and the Wildernism Scale (Hendee, 1968), are being employed extensively. However, whether they suit the context of the situation, whether they explain behavior fully, and "whether (researchers) have measured what needed to be measured or simply those variables that are convenient, popular, and economical" (Cousineau, 1978), are pertinent, unanswered questions.

Predicting Choices for Outdoor Recreation: Hypotheses

Fundamental to a communication approach to recreation research is the idea that the processes of communication

in the recreation experience -- rather than the specific recreation activity -- may be perceived as central by the participants. This thesis is the foundation upon which communication principles can be applied to outdoor recreation issues. Some theoretical principles were identified in Chapter IV. In this section, specific hypotheses based on these principles are suggested, and research designs for testing the hypotheses are described.

For purposes of exposition, let us assume we are studying the recreation activities of a hypothetical individual called Individual A. As recreation researchers, we want to measure why Individual A participates in some outdoor recreation activities, and why he does not participate in others. Why does he enjoy camping and hiking with friends? Why does he belong to some recreation-related clubs and organizations? How does his participation in some recreation activities influence his choices for participation in other activities? How can we as researchers determine and predict A's future choices for recreation activities?

One way to address these questions is to follow traditional socio-economic analysis approaches to recreation research. Another way is to apply the communication process approach described above in this paper. In the communication approach, the researcher must measure Individual A's outdoor recreation choices, measure his communication

processes before, during, and after the recreation activity, and then test for a relationship between recreation activity choices and communication processes.

Measuring recreation and leisure activity choices is fairly straight-forward, since that is usually what is first measured in any recreation study. The major questions a researcher must ask of a respondent are, "Do you participate in (a given activity)?", and, "How frequently do you participate?" The survey-questionnaire and observation techniques for testing representative samples of a population have been widely employed to measure recreation participation. These methods determine actual visitation rates to recreation sites, willingness-to-pay for the recreation resource, preferences for some activities over others, and other socio-economic determinants of recreation choice.

Measuring communication processes is somewhat more complex. However, communication researchers have made significant progress in developing measurement techniques. The following hypotheses and discussion about Individual A will illustrate some of these communication measurement techniques. This discussion parallels the three-part scheme used in Chapter IV to present theoretical principles for communication in recreation: (1) communication needs prior to recreation, (2) communication processes during recreation, and (3) communication effects of recreation participation.

Testing Communication Needs Prior
to the Recreation Experience

Once it is determined in socio-economic analysis
that Individual A does indeed participate in a given rec-
reation activity, and how frequently he participates,
communication researchers can address the question of why
he chooses that activity. Research into communication
needs prior to the recreation experience may yield some
answers to the question "why".

It is logical to study an individual's communication
needs which may influence his recreation choices. If a
researcher could isolate those communication needs which
occur prior to and influence the choice of a recreation
activity, he could then test for a relationship between
communication needs and recreation activity choices. Some
testable hypotheses developed from the example of Individual
A will illustrate this.

> H.1.   If Individual A communicates a
>   low self-concept, he will choose
>   recreation activities which do
>   not threaten or challenge that
>   self-concept.
>
> H.2.   If Individual A communicates a
>   low self-concept, he will choose
>   recreation activities which do
>   not place him in leadership
>   positions.
>
> H.3.   If Individual A communicates a
>   low self-concept, he will choose
>   low-risk recreation activities.

These hypotheses can be studied in an experimental
correlational research design. The researcher would test

Individual A's self-concept level by studying A's representative communication interactions prior to recreation. Communication content analysis, interaction analysis, and network analysis methods could give an indication of how A presents his self-concept in conversation. The researcher would also sample other individuals of the test population to determine their self-concept levels, and then devise a scale which plots communicated self-concepts from low to high levels.

Each individual would also be tested to determine his participation in and preferences for outdoor recreation activities. These activities would be plotted along the self-concept levels graph to test for a relationship between the communicated self-concept needs and recreation choices. If relationships do exist, some conclusions may be drawn about how communication needs prior to recreation may influence an individual's choices for recreation activities.

For example, communication analysis of Individual A's conversation might indicate that A has a low self-concept. Simultaneously, survey research may indicate that Individual A chooses to participate in low-risk recreation activities frequently. Survey responses may also indicate that other individuals with low self-concepts will, like Individual A, also choose to participate in low-risk recreation activities (H.3.). These individuals may choose to go hiking with their families, but will not participate in

mountain climbing recreation experiences. This correlation -- based on testable communication needs expressed in conversation -- may be significant for predicting recreation activity choices.

The other communication needs described in Chapter IV could also be tested in similar fashion. These needs could be identified through communication analysis of an individual's conversation prior to recreation. Then, the needs may be correlated with recreation activity choices to test for relationships between communication needs and recreation participation. Significant correlations may aid researchers in predicting future recreation choices.

Testing Communication During the Recreation Experience

Analyzing communication processes as they occur during recreation may allow researchers to predict user choices for recreation. What is said and done in communication interactions during the recreation experience, what messages an individual designs, transmits, and receives from other recreators, and what relationships develop among participants influencing the interaction, are important considerations for researchers studying communication processes.

The situation of Individual A presents an example for developing hypotheses related to testing communication processes during an outdoor recreation experience.

H.4. If Individual A belongs to an
outdoor recreation organization,
he will tend to design and present
messages during recreation consis-
tent with that organization's goals.

H.4.a. If Individual A presents mes-
sages supportive of an organi-
zation's goals, he will tend
to seek out other recreation
activities with similar goals.

H.5. If Individual A perceives himself
as similar to other recreators in
a given outdoor recreation activity,
he will design messages which are
highly personalized (i.e., based on
shared symbols, using implicit per-
suasive arguments, drawing from
shared experiences, etc.).

H.5.a. Individuals who form a cohesive
recreation group will develop
a group-specific "language"
based on shared meanings, vo-
cabulary, interpretations, non-
verbal cues, etc.

H.5.b. If an individual is a member
of one cohesive recreation
group, he will tend to seek
out other recreation activi-
ties which offer similar
small group interaction.

In predicting Individual A's choices for participation
in outdoor recreation activities, a researcher would measure
the processes of communication during a recreation activity,
measure recreation choices, and test for a relationship
between the two. For example, in testing Hypothesis 4,
the researcher would identify organization goals, then
perform a content analysis on the messages designed and
presented by participants during the outdoor recreation

activity. This content analysis would be accomplished by:
(1) observing the communication interaction, and (2) draw-
ing inferences from it, generally with the aid of a written
or recorded transcript. Then, based on explicitly-stated
rules for inclusion/exclusion of data, the researcher
would code the data into categories reflecting *quantity*
(for example, the number of topics introduced by the source,
the frequency of statements about a recreation topic, etc.),
and *quality* (that is, the strength of a receiver's state-
ments about a topic, the intensity of various non-verbal
acts, etc.).

Suppose Individual A is a member of the American Camp-
ing Association. A content analysis of his messages during
recreation would identify to what extent he has incorporated
organizational goals into his cognitive structure by
counting the frequency of his statements about goal-oriented
topics, and qualitatively assessing the strength of his
feelings about organizational goals.

The purpose of pursuing a content analysis is to later
make critical inferences about the processes of communica-
tion that have occurred in a specific interaction, and are
predicted to occur in other similar settings. This issue
is addressed in Hypothesis 4.a., where it is suggested that
the type of goals and type of organization which Individual
A supports in one outdoor recreation setting, will influence
his later choices for recreation activity participation.

For example, if one of the goals of the American Camping Association is to "encourage family camping", then Individual A will tend to participate in other recreation activities which also encourage family-oriented recreation.

It must be noted here, though, that Hypothesis 4.a. is related more to measurement of communication effects (discussed in the following section) than to content analysis of communication processes during recreation. Individual A may only seek out similar activities if he has incorporated these organizational goals into his own cognitive and attitudinal structures over time. Hypothesis 4.a. is merely a simplistic representation of the direction researchers could follow in analyzing communication content during recreation to determine user preferences.

Along with analysis of the specific content of communication messages during recreation, a researcher must also analyze the relational aspects of the communication situation. Through the methods of critical analysis, outlined in Chapter I, the researcher can outline various characteristics of source, message, channel, and receiver factors which may influence the communication process. Hypotheses 5, 5.a., and 5.b. allude to these relationships. Message analysis, a component of content analysis methods, along with analysis of the interpersonal communication networks, can be used in examining the relational aspects of the communication processes during specific recreation activities

(H.5., H.5.a.). Testing for a relationship between these processes and recreation activity choices (H.5.b.) would allow a researcher to predict, in part, an individual's future choices for recreation.

It should be stressed that analysis of communication during the recreation experience cannot be attempted without consideration of the communication needs and communication effects also influencing recreation participation. Based on needs they desire to satisfy, individuals will seek out certain predictable patterns of communication in recreation. Based on the processes of communication (the content of messages, and the relationships among participants) which occur during recreation, an individual receives certain effects. Based on the nature and extent of these effects, the individual may choose to participate in some specific recreation activities. Predicting a user's choices for recreation can be attempted only upon consideration of the interacting components of needs, processes, and effects in the communication interaction.

Testing Communication Effects of Recreation Participation

Individuals who participate in recreation activities may receive effects as a result of the communication experienced before, during, and after that recreation activity. Some of these effects can be measured by communication analysis methods.

It is relatively easy to see and record what is said and done in a communication interaction. It is more difficult, when studying such complex systems as total life-styles, to determine which attitudes, beliefs, knowledge, or values changes are due directly to communication processes in recreation. It is most difficult to comprehend long-term behavioral effects and consequences of communication in recreation and leisure.

The communication effects generalization states that: (1) individuals receive certain communication effects from their recreation experiences, and (2) these effects influence later choices for recreation participation. Some testable hypotheses about communication effects can be developed from the example of Individual A.

H.6.   If Individual A is exposed to favorable mass media messages about an outdoor recreation activity, he will tend to learn more information about the activity.

H.7.   If Individual A is exposed to favorable mass media messages about an outdoor recreation activity, he will tend to think positively about that activity.

H.8.   If Individual A is exposed to favorable mass media messages about an outdoor recreation activity, he will tend to participate more often in that activity (including increasing the frequency of actual site visitation, equipment buying behavior, willingness-to-pay for the experience or resource, etc.).

One point must be clarified in the beginning: there are certain social, demographic, and economic differences among individuals which influence their attitudes and behavior at any given time. Communicated mass media messages do not induce effects in a vacuum: an individual's background, experiences, social and psychological traits, etc., all influence how effects are received and assimilated.

In testing communication effects related to recreation participation, the researcher must measure recreation choices, measure communication effects, and test for a relationship between the two. Much of the past communication research on effects has taken the form of survey research (measure exposure by receivers to a specific message, and correlate this with observed or reported behavior), or experimentation (use of control and experimental groups to determine receiver effects from varied levels of exposure to messages).

A possible research design for measuring communication effects can be suggested from the hypothesis based on the example of Individual A. Individual A is pre-tested, as part of a sample survey population, about his knowledge levels, interest, and attitudes towards, for example, cross country skiing outdoor recreation activities. He is asked at this time if he owns cross country skis. Then, the researcher experimentally exposes part of the sample population to mass-mediated information messages about cross

country skiing activities. Levels or amounts of exposure, characteristics of messages presented, or channels used for information dissemination, may be manipulated by the researcher for the control and experimental groups. During the experiment, it is expected that the subjects will experience certain cognitive, affective, informational, attitudinal, and behavioral effects related to mass media exposure.

After the test period, Individual A is again tested by the researcher using questionnaires, interviews, observation, or other methods, to assess the effects or changes related to message exposure. As a result of increased exposure to mass-mediated messages about cross country recreational skiing, Individual A may have received some effects. For example, he may have learned some new information about that activity, as suggested in Hypothesis 6. He may have developed some beliefs and expectations (cognitive effects) or experienced changes in his attitude structure (attitudinal effects), as suggested in Hypothesis 7. And, he may have incorporated some changes into his behavior repertoire: he may participate in cross country skiing more often, or he may buy or rent cross country ski equipment with the intent of participating, or he may try to convince others to participate with him (Hypothesis 8).

It may appear that effects are relatively easy to record and measure; actually the reverse is true. Communication effects are very complex, based on a number of

interacting factors in the communication process, and sometimes cannot be directly attributed to any one variable. Effects generally occur as a result of a complexity of interacting needs, processes of communication, and expected and subliminal outcomes. However, the study of communication effects may aid recreation researchers in predicting user choices for recreation. Study of possible communication effects, combined with recreation research of observable user choices, may allow researchers to make some assumptions about long and short term user preferences for recreation resources and activities.

Summary

Recreation researchers, using socio-economic analysis methods, can identify some characteristics of individuals who participate in recreation, and what activities they choose to participate in. Communication researchers can add to this a social-psychological perspective about why individuals choose to participate in specific recreation activities. Communication researchers can analyze: (1) the needs which influence an individual's selection of recreation activities, (2) the repetitive communication patterns and processes which occur during recreation, and (3) some effects of communication concerning recreation.

Communication analysis appears promising as an approach to predicting user choices for recreation. It may also be appropriate for addressing other recreation

research problems. Some further extensions of the com-
munication process model in recreation may be: (1) in
better understanding user needs for and satisfactions
received from recreation; (2) better measurement methods
and models for evaluating the quality of the recreation
experience; (3) determination of potential substitutable
recreation resources; (4) measurement of changing social
values related to leisure and recreation attitudes; (5) an
understanding of components of environmental perception
from a communication perspective; (6) a theoretical under-
standing of information dissemination campaigns; (7) other
applications.

It is necessary to point out that communication needs,
processes, and effects do not correlate directly with the
well-accepted model of the recreation experience: before,
during, and after recreation participation. The process
nature of communication means that needs, processes, and
effects all interact at any part of the recreation experi-
ence. Thus, communication effects can occur before recrea-
tion, during recreation, and also after recreation, etc.
The simplistic model of communication needs, processes,
and effects was used in this thesis primarily to logically
describe communication components. Researchers who become
familiar with this model as it relates to recreation re-
search can advance to more complex issues about the trans-
actional, symbolic processes of communication.

CHAPTER VI

CONCLUSION

This paper has examined the potential role of communication in leisure and recreation research. The definition of communication as a "transactional, symbolic process which allows people to relate to and manage their environments" (Miller, 1977) was chosen to direct the analysis. A theoretical overview of communication principles and concepts was discussed in terms of: (1) communication needs prior to recreation participation, (2) communication processes during the recreation experience, and (3) communication effects of recreation participation. These theoretical principles were then applied to predicting user choices for outdoor recreation. Testable hypotheses were developed as examples of practical research directions for addressing this recreation research problem.

It is suggested here that the communication process model can be extended towards solving other problem areas in recreation and leisure research as well. The breadth and scope of both the recreation and communication disciplines allows and encourages multidisciplinary application and experimentation.

The diversity of each discipline also accounts for some of the difficulties of addressing in one short paper

such complex issues as the role of communication in recreation and leisure research. This paper makes preliminary attempts in that direction, and hopefully, will stimulate additional work.

Communication Research in Recreation

As a relatively new field of scientific inquiry, recreation research has concentrated primarily on descriptive studies which emphasize data collection through survey methods and an applied orientation to solving problems. The synthesis of the existing body of knowledge and facts about leisure and recreation into an integrated, comprehensive theory of recreation is difficult. However, the development of a theoretical base for leisure and recreation is slowly beginning to be addressed by researchers.

Communication research can potentially contribute to both applied and theoretical problems in leisure and recreation research. Some of the current social and psychological recreation research, in fact, is very similar in design to communication research. Attitude, information, and behavior studies have received increasing attention in recreation research within the last few years. Communication research, based in the social sciences, could provide the needed focus for social, psychological, and behavioral theory in recreation.

Importantly, the study of communication as a "transactional, symbolic process" indicates a system's approach

to research. A comprehensive system's focus developed from
communication could direct recreation towards a theoretic
research framework. This framework would provide for con-
sistency in terminology useful for development of opera-
tional research definitions, theoretical models of the
recreation experience, formulas for forecasting recreation
demand, etc.

Verbal and non-verbal communication patterns are the
best indicators researchers have so far about the status
of an individual's attitudes, beliefs, knowledge, and
values structures. Evaluation of the recreation experience
according to communication needs, processes, and effects,
may help researchers assess such intangibles as: opera-
tionalization of "leisure" and "recreation" definitions,
the "demand" for and choices for recreation resources, the
"value" and "benefits" of the recreation experience, and
the perceived "quality" of recreation activities and set-
tings. Choices for recreation activities, substitutable
recreation resources, and complementary experiences may
all be analyzed according to the communication processes
which occur in those activities.

It is anticipated that communication research in
recreation may help define the needs for and satisfactions
achieved from recreation, the demand for recreation re-
sources, and the social benefits and values to be gained
from recreation participation. In practical application,

recreation managers could better plan and manage programs
and facilities for recreation use, based on the communica-
tion that could potentially occur there. Leisure counselors
may one day be able to guide individual recreators to those
leisure and recreation activities and resources which best
suit their lifestyles, based on analysis of the communica-
tion processes preferred. Recreation planners could develop
social planning goals and objectives for recreation resources
based on the behavioral aspects of communication processes
in recreation. Standards for resource use, expressed in
terms of needs met in and satisfactions achieved through
communication processes in recreation, may be one applica-
tion of the communication process model.

Limitations of the Model

Although communication may provide a number of signifi-
cant contributions to leisure and recreation research,
there are some limitations on the wide-spread acceptance
and use of this approach. Notable among these limitations
is that not all recreation research problems are problems
of communication, and cannot be measured as if they were.
Some problems of the interrelationships between man and
his environment are political, economic, ecological, philo-
sophical, etc. Communication research may help in under-
standing the problems of verbal and non-verbal interaction
in recreation, but it cannot resolve every recreation
problem.

Secondly, to understand attitude, belief, and value structures, researchers must study an individual's choices in action -- both the verbalized accounts of inner cognitions, and also the overt behaviors. It is necessary to remember, though, that sometimes "...(one's) real (attitude, belief, or value) structure may not coincide with his verbalized (attitude, belief, or value) structure" (Kuhn, 1975). Although communication appears at the present time to be the best indicator linking internal thought processes with overt behavior, what an individual says may not always indicate what he is thinking or what he will do.

Additionally, the benefits to be received from the application of the multidisciplinary communication field to the equally multidisciplinary recreation and leisure field may be overshadowed by the fact that it sometimes seems that everything is related to everything else. The process of drawing the boundaries of analysis so as to segment issues into manageable parts for study is a tedious and subjective procedure. Using principles and processes of communication to explain phenomena in leisure and recreation may serve only to further bury important recreation issues under layers of jargon and concepts, segmenting the field even further.

Another limitation of applying the communication approach concerns who will do the research. Currently, leisure and recreation researchers have only limited

knowledge of the concepts, theories, and methodologies of communication research, and vice versa. There is a need for researchers who are well-versed in both natural and social and psychological sciences. These researchers must be capable of basic-theoretical and applied-practical research. They must be able to communicate with the public, and must also be able to translate their research results into useful managerial practices.

A critical limitation, too, is based in the problems of measurement. Communication needs, processes, and effects are multidimensional, and exceedingly difficult to measure. Recreation problems are also difficult to measure because so many influences affect an individual's perception of any one recreation experience. More analysis of the methods used for measurement in both disciplines would be a useful research consideration.

There is also a conceptual difficulty in how researchers perceive and understand the terms "communication", "leisure", and "recreation". Since each individual has a personal conception of what these terms mean within the bounds of his own experience, it is difficult to agree on universal definitions, and more difficult to measure these in research. The fact that some people fail to take the scientific study of leisure, recreation, or communication seriously is a major deterrent in research.

Future Research Directions

The analysis undertaken in this paper indicates that communication principles, concepts, and methods have not been applied to a significant degree in recreation and leisure research. Communication seems highly relevant, however, and has potential to make contributions in a variety of areas in recreation. These potential areas of overlap are too numerous to be fully and adequately addressed in this preliminary paper. The communication approach in recreation raises a number of questions about the future of recreation and leisure research. Interested researchers may begin to answer some of these questions by testing the hypotheses presented here, and further exploring other interrelationships between communication and recreation. It is hoped that this thesis will encourage further research in these areas, and will assist in facilitating a greater transfer of ideas between communication and recreation.

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