**Illuminare**

*A Student Journal in Recreation, Parks, and Leisure Studies*

Illuminare was established in 1992 by the students at Indiana University to serve as a forum for assisting student researchers and scholars to publish manuscripts which contribute to the field of parks, recreation, and leisure services.

Created by and for students, Illuminare strives to contribute an additional refereed journal to the parks, recreation, and leisure service profession. Illuminare is Latin, meaning to light the way, illustrate, or inform. We hope to light the way... by our reviewing, encouraging, and assisting students in efforts to publish; to illustrate... by disseminating scholarly work; and to inform... by sharing student research.

Illuminare is supported in part by the Leisure Research Institute of the Department of Recreation and Park Administration in the School of Health, Physical Education, and Recreation at Indiana University.

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Having been involved with Illuminare since its inaugural issue in the spring of 1990, I feel privileged and proud to present on behalf of the staff of Illuminare and the Department of Recreation and Park Administration at Indiana University, the Spring 1995 edition of Illuminare.

The call for papers this year yielded a diverse set of topics, but perhaps more importantly, manuscripts from a diverse group of students. This issue contains manuscripts by students at all levels of the university as well as several students from outside of Indiana University. Both of these facts indicate growth and are trends that I hope continue in the future editions of Illuminare. Lastly, the manuscripts also represent a diverse group of issues from outdoor recreation to the qualitative assessment of physical education facilities something that reflects the various interests and areas of study in our field.

I would like to thank all who have been involved with this issue of Illuminare, including the staff of the journal who took the time to read and review more than thirty manuscripts. A special thanks to Dr. Lynn Jasminson, Dr. Dan McLean and Dr. Ruth Russell at Indiana University for presenting an excellent workshop concerning manuscript review for the entire staff of the journal. This journal would not be possible without Ben Swartz, the resident computer who spent time not only reviewing manuscripts, but formatting and laying out the entire journal. I only hope that once this edition is published, he will have the opportunity to get some sleep! A personal thank you to Dr. Ruth Russell who in addition to her duties as a professor and administrator in the School of IFPER at Indiana University, finds the time to guide us in this endeavor. Lastly, I have been lucky to have been able to call upon 1994 Editor, Steve Kogut. Steve gladly and quickly provided support and guidance whenever needed. Like me, Steve and several of the staff of Illuminare have been with the journal since its inception. I think that we are all glad that we had the opportunity to contribute to the journal, and all look forward to many future editions of Illuminare.

Sincerely,
Jim Lewis, Editor

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Validating a Methodology for Behavior Change in Environmental Education: An Interdisciplinary Analysis

Jansen Kay
Undergraduate Outdoor Recreation Program
Indiana University

ABSTRACT

The goal of environmental education is to facilitate the development of individuals who are environmentally aware, sensitive, and motivated to resolve environmental problems and/or issues. This study attempts to clarify which methods of behavior change in the field of environmental education are best supported in other professional disciplines. A comparison of behavior change methods in environmental education and substance abuse prevention was made. This comparison revealed significant consistency between the two disciplines in regard to their variables of behavior change.

Keywords: behavior change, environmental education, substance abuse prevention

INTRODUCTION AND CONCEPTUAL BACKGROUND

Environmental education seeks to produce a population which is aware of environmental problems and motivated to develop solutions (Stapp, Bennett, Brynn, and Nowai, 1969). The goal of environmental education is to facilitate the development of individuals who:

1. Are aware of the environment and its allied problems.
2. Sensitive to environmental needs and problems [and/or issues].
3. Have attitudes which show understanding and concern for the environment and its associated problems [and/or issues].
4. Possess the skills necessary for identifying and solving environmental problems [and/or issues].
5. Actively involved at all levels in working toward resolution of environmental problems [and/or issues] (Thibb, 1978).

Although the goals are clear, the methods for fostering these qualities within individuals have been under considerable examination by environmental education researchers (Hines et al., 1986/87; Hungerford, Peyton, and Wilson, 1980; Hungerford and Vell, 1989; Steve, 1989; Stapp et al., 1969). Efforts by Hines et al. (1986/87); Hungerford et al. (1986/87), Hungerford and Vell (1990), Steve (1989), and Stapp et al. (1969) have attempted to produce standards as to how environmental education should be administered to produce a change in participant behavior.

This study attempted to clarify which methods of behavior change in the field of environmental education are best supported in other professional fields.
disciplines. In this attempt, a comparison of behavior change methods in environmental education and substance abuse prevention was made. The research in the two fields revealed significant consistency. While the ultimate goals in each field are very different, the way they go about achieving a change in behavior is very similar.

The research put forth by Hungerford and Volk (1990) outlines a method for affecting behavior change which is similar to a consensus of methods found in substance abuse prevention. Hungerford and Volk call for educational practices which increase awareness, foster empowerment, and develop a sense of ownership. The field of substance abuse prevention possess program components which seek to develop awareness, empowerment and participation, and partnerships between involved parties (Chandross, 1989; Doster and Terry, 1993; Blickstein, Bell, and Harrison, 1993; Finchfield, 1992; Groff, 1988; Lodquist, 1993; Wallenstein, 1992). A review of field literature, and comparison of behavior change methodologies in the two fields illustrates the consistencies and differences.

LIMITATIONS
A limitation of the study was the scope of reviewed substance abuse literature. Only recent publications in the area of behavior change were reviewed in regard to the field of substance abuse prevention. Further, the Phase Development Model (discussed later) was conceived on the basis of the seven substance abuse prevention publications reviewed.

BEHAVIOR CHANGE IN ENVIRONMENTAL EDUCATION
The Supercategory Goal is to aid citizens in becoming environmentally knowledgeable and, above all, skilled and dedicated citizens who are able to work, individually and collectively, toward achieving and maintaining a dynamic equilibrium between quality of life and quality of the environment (Hungerford, Peetont, and Wilke, 1980, p. 431).

Hungerford, Peetont, and Wilke (1980) in their article Goals for Curriculum Development in Environmental Education clearly lay out the purpose of environmental education. Hungerford (1980) et al. issue a call for citizens who are "environmentally knowledgeable" and "willing to work, individually and collectively" to improve and maintain the quality of the environment while not compromising quality of life. Sound, research-based programs, must be implemented on a widespread basis in order for educational efforts to induce environmentally responsible behavior. Currently these type of sound programs have not been implemented to a desirable extent, and environmental educators agree, efforts towards this end have been less than successful. The research of Hungerford and Volk (1990) is one such example when current reports on environmental quality are considered. We must admit that we have not been successful, on a widespread basis, in convincing world citizens to act in environmentally responsible ways. There appear to be few concerned, nationally focused efforts that prepare future citizens to make environmentally sound decisions or to participate responsibly in environmental maintenance and remediation. As a result, only a fraction of our young learners are being exposed to logically developed, well-articulated EE programs (Hungerford and Volk, 1990, p. 10).

The Hungerford and Volk model
The Hungerford and Volk article Changing Learner Behavior Through Environmental Education has produced some of the most reputable and solid evidence to date in environmental education (1990). The model outlines three primary variable categories for behavior change. Within each category, are major variables, which are likely predictors of citizenship behavior, and minor variables, which have a less significant relationship to citizenship behavior (Hungerford and Volk, 1990, p. 10). The model is presented in Figure 1.

Figure 1 - Hungerford & Volk Model

- Major and Minor Variables Involved in Environmental Citizenship Behavior
- Major variables
  - Personal involvement in the environment
  - Knowledge and skills in environmental protection
  - Influence of peers in environmental issues
- Minor variables
  - Knowledge of the consequences of behavior
  - Positive and negative attitudes towards methodology and participation
  - Formal and informal involvement in issue resolution

Adapted from Hungerford and Volk (1990)
The variables presented in Fig. 1 work together to produce what Hungerford and Volk term "citizenship behavior." A person displaying citizenship behavior is defined as a person having five basic qualities or characteristics:

1. An awareness and sensitivity to the total environment and its allied problems and/or issues.
2. A basic understanding of the environment and its allied problems and/or issues.
3. Feelings of concern for the environment and motivation for actively participating in environmental improvement and protection.
4. Skills for identifying and solving environmental problems and/or issues.
5. Active involvement at all levels in working toward resolution of environmental problems and/or issues (Hungerford and Volk, 1990, p. 8).

The following discussion of each variable level will be limited to the major variables due to spatial constraints.

Entry-level variables

Entry-level variables are those which precede ownership and empowerment variables and appear to be a prerequisite to citizenship behavior. The major variable, environmental sensitivity has been heavily linked to individuals who display citizenship behavior (Sia et al., 1985; Svirak, 1989; Tbilisi, 1978). Defined as "an empathetic perspective toward the environment" (Hungerford and Volk, 1990, p. 11), this variable has been consistently present in citizens who display lasting environmental responsibility (Sia et al., 1985/86; Svirak, 1989). These environmentally sensitive persons report that they have at one point or another, had long-term experiences in the outdoors, or have been in contact with persons who acted as environmental / intuitive role models (Hungerford and Volk, 1990). It is important, then, to encourage individuals toward long-term outdoor experiences, and offer them exposure to environmentally sensitive persons (Hungerford and Volk).

Ownership variables: In-depth knowledge and personal investment

In-depth knowledge of issues appears to be crucial in creating a sense of personal ownership and commitment toward solving environmental problems and/or issues. Deepened understanding of environmental issues allows individuals to "understand the nature of the issue and its ecological and human implications. When individuals have an in-depth understanding of issues, they appear more inclined to take on citizenship responsibility toward those issues" (Hungerford and Volk, 1990, p. 12). This variable seems to be crucial in influencing lasting, environmentally responsible behavior, and should therefore, be given critical attention. Personal investment occurs when an individual spends a considerable amount of time and effort on a particular environmental problem and/or issue. An investment in time and effort produces a perceived (or very real) interest and commitment on the part of the individual toward solving the problem or issue at hand (Hungerford and Volk, 1990). It also serves to motivate individuals into the next category of variables.

Empowerment variables

Perceived skill in using environmental action strategies has been cited as one of the very best predictors of behavior (Sia et al., 1985; Hungerford and Volk, 1990). This variable seems to have a profound effect on personal confidence which leads to a feeling of "power" in solving environmental problems (Hungerford and Volk, 1990). This perceived personal "power" in turn, fosters individuals who are more active in the community.

Locus of control is defined as "an individual's belief in being reinforced for a certain behavior" (Hungerford and Volk, 1990, p. 12). An example of how locus of control is applied is given by Hungerford and Volk. A person with an "internal locus of control" expects that he/she will experience success or somewhere be reinforced for something. Success, in turn, appears to reinforce his/her internal locus of control. On the other hand, a person with an "external locus of control" does not believe that he/she will be reinforced for doing something and, therefore, probably will not do it (p. 12).

Because of its abstract and personal nature, it is unlikely that locus of control can be taught as a variable operating on its own, however the influence it appears to have on citizens who are willing to take environmentally positive action clearly indicates that it must be given attention.

Intention to act is a variable which has been repeatedly emphasized in discussions of fostering environmental responsibility (Hines et al., 1986-87, Hungerford and Volk, 1990). We find this variable interconnected with other variables in the Hungerford and Volk model. It is likely that this variable is closely related to both perceived skill in taking action and locus of control. "Intention to act," may also share a synergistic relationship with "personal investment" (Hungerford and Volk, 1990, p. 13). Intention to act is clearly a variable of significant importance and one which should have a particular emphasis placed upon it.
Behavior Change in Substance Abuse Prevention

With the current rise in substance abuse in America, the prevention of substance abuse has become a key issue for many American communities. Communities are currently seeking an approach to prevention proven to be reliably effective, easy to understand, and “user friendly.” Loquasto, 1993, p. 20-211. They seek a program which, upon completion, can ensure immunity to the current trend of escalating substance abuse. These programs have as their goal a change of human behavior: a change from potential substance abuser to substance user. Despite the complexity of goals in these programs, some consistency in methodologies have surfaced among successful substance abuse prevention programs.

Phase Development Model

In the Substance Abuse Prevention (SAP) programs reviewed, a pattern was evident in the methods or philosophies. Each of the programs offered a school of thought, or method, for evoking a change in behavior which was unique to that program. However, common to each approach, was a reference to one or all of the three basic phases of the conceived, synthesized Phase Development Model. All of the seven SAP programs reviewed made either overt or subtle references to the following three phases of behavior change in a client or community.

1. Awareness Phase. In this phase there is an evolving awareness on the part of the client or community of the negative consequences of substance abuse (Doshier and Terry, 1993; Eliykerson et al., 1993; Wallerstein, 1992).

2. Empowerment/Participation Phase. The client or community begins to involve themselves in making decisions, and influencing outcomes which have a bearing on them directly (Eliykerson et al., 1993, Loquasto, 1993; Wallerstein, 1992; Frischhoff, 1993).

3. Partnership Phase. The client takes the information, and strategies gained in the first two phases and begins to build partnerships with individuals (particularly adult-child partnerships), groups, or other agencies in order to maximize mutual strengths (Chandless, 1989; Groff, 1989; Doshier and Terry, 1993, Loquasto, 1993).

One or all of these three phases are referred to in each of the seven SAP programs reviewed. This indicates strong consistency between the philosophies/methodologies present in each of the programs, and serves to punctuate the important role these phases play in SAP programs. When we begin to examine the method/philosophy of each of these programs in depth we find a distinctive feature of the programs is their consistent citation of these three program phases.

Awareness Phase

Of the SAP programs reviewed, virtually all of the programs made some reference to the Awareness Phase. Doshier and Terry (1993) include the discovery phase in their behavior change model as the starting point and cornerstone of any prevention program. In William Loquasto’s 1993 article, The Technology of Prevention: A User-Friendly Framework for Change, an outline for a program of community prevention utilizes seven steps approach to prevention. The first two steps, Arenas of Human Service Activity and Elements of Change, are focused on the purpose of creating a basic awareness of the current status and future goals of the participants and/or community as they pertain to the creation of a prevention program. Loquasto writes of the Arenas of Human Service Activity component that “This component emphasizes the purpose and focus of an activity and thereby encourages those involved in change to think about their basic directions” (p. 22). Here an awareness of the collective goals, and the primary direction desired for the program is encouraged during the initial planning activities of a prevention program.

Eliykerson, Bell, and Harrison (1993) in their review of the school based youth prevention programs, Project ALERT, assign the importance of participants discovering negative consequences of substance abuse in order that they may take steps toward abstinence of use. Their work with the Health belief Model has brought them to the conclusion that client awareness of these potential negative consequences is of paramount importance. “...strategies adapted from the Health belief Model include helping adolescents recognize the serious negative consequences of drug use, to understand their own susceptibility to those consequences, and to identify the benefits of not using” (Eliykerson et al., 1993, p. 230). Eliykerson et al. also cite some activities included in Project ALERT which are oriented toward the goal of awareness. Students write down the benefits of resistance to use, then teachers “help the students to understand why we often think most kids use when, in fact, the majority do not (e.g., we notice people drinking but not the opposite)” (Eliykerson et al., p. 230). Support for the Awareness Phase is also offered by Wallerstein (1992), and Frischhoff (1992).

The Empowerment/Participation Phase

In the Empowerment/Participation Phase the client begins to take a stake in the program in which they are involved. The participant takes an active role in planning and implementing the decided program or curriculum, rather than a passive role in which they are simply receiving information. They begin to directly shape the circumstances or environment affecting them (Loquasto, 1993). Group skills, motivation, participation, and a collective vested interest resulting in a sense of empowerment, or self-direct-
tion, are key issues during this phase of a SAP program. William Loofbourow (1993) makes reference to two of these aspects in his essay entitled *Three Powerful Theories for Change*. Loofbourow defines the *Theory of Participation* as follows: "When people have an opportunity to participate in decisions and shape strategies that vitally affect them, they will develop a sense of ownership in what they have determined and committed to seeing that the decisions are sound and the strategies are useful, effective and carried out" (p. 21). In Loofbourow's *Theory of Changing Conditions he outlines some additional benefits which result when participants become directly involved, and work together with other participants and the group leader to achieve collective goals. "When people work together to create conditions that promote their mutual well-being, not only is there a clear sense of the common good strengthened and pursued, but the individuals involved are provided opportunities for personal development as well" (Loofbourow, p. 21). Participation and/or leadership with the SAP programs, which allows for increased knowledge, brings about a greater vested interest in the outcome of the program.

An additional benefit, (alluded to in the Loofbourow article), expanded personal development, was listed as well (Ellickson et al., 1993, Greff, 1989). Nina Wallerstein (1992) summarizes the concept of empowerment (as it pertains to SAP programs) in her article *Empowerment and Popular Education Applied to Youth*. She writes, "empowerment education involves people in group efforts to identify their own problems, to analyze critically the cultural and socioeconomic roots of the problems, and to develop strategies to effect positive changes in their lives and in their communities" (p. 17). The strategies for problem solving gained in this phase, coupled with the information gained in the Awareness Phase make possible the Partnership Phase. Here, clients utilize the principles of the previous phases in order to work collectively with other individuals or agencies for the common goal (Chandross, 1989; Loofbourow, 1993).

The Partnership Phase

In this phase, SAP programs reach the culmination of their time and effort. The knowledge, skills, and insight gained in the previous phases is put to use when clients become involved with partnerships. The goals of this phase include interpersonal and inter-group collaboration, maximizing resources and strengths, building responsibility and leadership skills, and utilizing communication skills.

Partnerships create an environment where all involved entities can be encouraged to examine their strengths and weaknesses. Inevitably, agencies, groups, or individuals come to the conclusion that they have been endowed with a certain strength where others may be weak, and visa versa. The involved entities soon realize the benefits of using each others strengths. Partnerships bring about an increase in the collective capabilities of the involved partners. "At this level a new vision is created among collaborative organizations, and the strengths of those involved are used to design new ways of pursuing that vision" (Loofbourow, 1993, p. 24). In this way an elevated potential is reached among the involved groups by utilizing strengths of the collective whole. However, this approach is not easily realized. Each agency, group, or individual has a problematic tendency to overlook weaknesses, or they are often unwilling to acknowledge a potential strength because they lack the confidence, or have not been accustomed to taking on such a role in the past. Kathryn Chandross (1989) cites the benefits and problems associated with partnerships between youth and adults.

Adults are accustomed to making decisions for young people, and young people are brought up to accept that adults make decisions for them. These two habits are hard to break. It is difficult for adults to accept occasional when their ideas and opinions should not prevail. And young people who have not dealt with adults as peers often lack the confidence to work at their sides without feeling inferior. A tremendous amount of time and energy must go into changing such attitudes so that young people can have legitimate power and responsibility (p. 18). Further support of the Partnership Phase is offered by Fischhoff (1992), and Greff (1989).

**COMPARISON OF BEHAVIOR CHANGE METHODOLOGIES**

A comparison of behavior change methodologies in environmental education and substance abuse prevention demonstrates some prevailing consistencies. The methods for behavior change in each field allude to an initial awareness stage as a prerequisite to developing sound decision making skills (Doshier and Terry, 1993, Ellickson et al., 1993, Hungerford et al., 1980, Hungerford and Volk, 1990, Watterstein, 1992), and the importance of personal empowerment (Hungerford and Volk, 1990, Loofbourow, 1993). However, it must also be recognized that these two fields do show important disregard in their methods.

Absent from the Hungerford and Volk (1990) model is any mention of a partnership variable. This behavior change variable has been shown to be extremely prevalent in substance abuse prevention programs (Fischhoff, 1992, Loofbourow, 1993, Wallerstein, 1992). These areas are further analyzed below:

**The Purpose of Entry-level and Awareness Variables**

In substance abuse prevention an awareness of the potential negative consequences of substance use is desired (Doshier and Terry, 1993, Ellickson et al., 1993, Wallerstein, 1992). In environmental education the desired awareness is of ecological principles (Hungerford and Volk, 1990, Hungerford et al., 1980). It appears as though both serve as a starting point from which
Absence of a Partnership Variable in Environmental Education

The behaviour change model is designed to improve the effectiveness of environmental education by enhancing the partnership variable. This variable is expected to contribute to the success of the model in community settings. The model proposes that a strong partnership between the educational institution and the community can facilitate the implementation of effective environmental education programs. The partnership variable is an integral component of the model, as it plays a crucial role in ensuring the sustainability of the educational efforts. The absence of this variable in environmental education programs may lead to a lack of engagement and support from the community, thereby hindering the success of the educational initiatives.

The model emphasizes the importance of involving the community in the planning and implementation of educational programs. By fostering a strong partnership, the model aims to create a conducive environment for learning and change. The partnership variable is expected to enable the educational institution to tailor its programs to the specific needs and capacities of the community, thereby increasing the likelihood of success. The model also highlights the importance of ongoing communication and collaboration between the institution and the community, as this can help to address issues and adapt the programs to meet the evolving needs of the community.

The absence of the partnership variable in environmental education programs can result in a lack of commitment and support from the community. This can lead to a failure to implement effective educational programs, which may have a negative impact on the environment. Therefore, it is crucial to prioritize the establishment of strong partnerships in environmental education initiatives to ensure their success and sustainability.

In conclusion, the model underscores the importance of the partnership variable in environmental education, highlighting its potential to enhance the effectiveness of educational programs. By fostering strong partnerships between educational institutions and communities, the model aims to create a conducive environment for learning and change. The absence of this variable can hinder the success of educational initiatives, emphasizing the need for its incorporation into environmental education programs.
CONCLUSIONS

The comparison of behavior change methodologies in environmental education and substance abuse prevention programs revealed consistencies and differences in approach. A consistency prevalent in the two methodologies was a reference to an initial awareness level. The Awareness Phase of Substance Abuse Prevention (SAP) programs is designed to increase knowledge of the potential negative consequences of substance use and to identify alternatives (Moos, 1989; Dozier and Terry, 1993; Ellickson, et al., 1993, Wallenstein, 1992). The entry-level variables discussed in Hungerford and Volk’s (1990) model are designed to increase basic ecological knowledge and develop environmental sensitivity. Both fields view this initial phase as essential to providing information for solid decision making skills (Dozier and Terry, 1993, Ellickson et al., 1993, Hungerford et al., 1980, Hungerford and Volk, 1990, Wallenstein, 1992).

Also consistent between the two fields is a reference to behavior change variables which increase the perception of an internal locus of control or empowerment (Hungerford and Volk, 1990, Loquist, 1993). The Empowerment/Participation Phase of SAP programs attempts to increase the internal locus of control, or empowerment of a client or community. This is accomplished by allowing the clients or community to make decisions, and influence outcomes which have a bearing on them directly (Ellickson et al., 1993, Loquist, 1993, Wallenstein, 1992, Fischhoff, 1992). The Hungerford and Volk (1991) empowerment variables show consistency with the SAP Empowerment/Participation phase in that they view locus of control as critically important. Hungerford and Volk record this variable as interconnected with several other behavior change variables, and of major importance to fostering empowerment. However, it should be noted that this is the only area where the two fields show a direct correlation at the empowerment level of behavior change.

The comparison of behavior change methodologies for environmental education and substance abuse prevention uncovered an inconsistency as well. In the Hungerford and Volk (1990) model there is no mention of a partnership variable as indicated in substance abuse prevention. This behavior change variable has been viewed as paramount in the success of substance abuse prevention programs (Chandross, 1989, Groff, 1989, Dozier and Terry, 1993, Loquist, 1993). SAP programs use this phase to achieve an elevated potential through maximizing agency strengths and minimizing weaknesses. Loquist (1993) notes of SAP programs. “At this level a new vision is created among collaborative organizations, and the strengths of those involved are used to design new ways of pursuing that vision” (p. 24).

RECOMMENDATIONS

The author recommends that further attention be paid to developing a partnership variable with regard to environmental education. The inclusion of such a partnership variable in environmental education has the potential to increase the productivity of environmental agencies toward the goal of changing participant behavior. Through utilizing a variety of agency strengths and resources, a more effective message of environmental awareness and responsibility can be communicated to participants. The end result of initiating such a partnership approach to environmental education will be a more environmentally literate and responsible population.

The consistencies found in the areas of initial awareness variables, and internal locus of control (empowerment) variables give significant support to the Hungerford and Volk (1990) behavior change model. With such support, it is all the more important that environmental education programs implement the entry-level, and internal locus of control variables contained in the model. If these strategies have been proven effective across professional disciplines, it would follow that they have a significant potential to reliably affect a change in participant behavior.

Recommendations for further study

It is recommended that future research be devoted to assessing the effectiveness of different behavior change methodologies in environmental education programs. Such evaluations of behavior change methods can only result in a more effective approach to environmental education. It is also recommended that a validated instrument for accurately evaluating the degree of behavior change in participants in an environmental education program be developed. Further, such future evaluations should focus on long-term behavior change as well as short term.

REFERENCES


BEHAVIOR CHANGE IN ENVIRONMENTAL EDUCATION


Signage in Outdoor Recreation

Caroline Little
Master's Program
Indiana University

ABSTRACT

The importance of signage in recreation settings is often underestimated. Proper signage is critical for informing, instructing, and alerting guests of the site(s) they are visiting. It is important, however, to know that what is said is in just as important as how it is said. In order for signage to be effective, close attention to presentation must be given. If signage is properly utilized, it will benefit not only the visitor but the agency as well. This paper will discuss some of the elements of information and presentation needed to create effective signage in recreational settings.

EFFECTIVE SIGNAGE

The purpose of signage is communication. Signs give directions and warnings, inform people of state regulations, identify areas, and supply interpretive information (Doughlass, 1993). Proper signage can distribute visitors evenly throughout a site to avoid overuse and crowding, and should convey information with an air of hospitality, welcome, and dignity (Sternlof & Warren, 1993). It also is important to convey information in a positive light. Restrictive signs, such as "DO NOT PICK THE FLOWERS" or "NO FISHING," could be phrased in a more positive manner such as, "PLEASE LEAVE THE FLOWERS FOR OTHERS TO ENJOY" or "FISHING IS STRICTLY FOR THE BIRDS." (Sternlof et al., 1995, p. 199). Nonrestrictive signs also tend to yield greater compliance and less vandalism (Sharpe, Odegard, & Sharpe, 1994). Signs can play an important role in risk management. Shiven (1986) reported that there have been at least five thousand lawsuits against public departments or other deliverers of recreational services each year in the United States. Signage can play an important role in preventing accidents or protecting an agency from lawsuits, if properly worded. In Pennsylvania, a...
also important to consider the cost of sign maintenance or replacement due to vandalism. Hand-carved wooden signs may be more picturesque but are often not as durable as metal or plastic signs. (Sharpe et al., 1994) Signs may also be damaged or stolen, which can result in additional costs for the park or park management.

Once the need for a sign is determined, it is important to consider the location of the sign. Signs should be placed in areas where they are most visible and where they will not be obstructed by trees or buildings. This will help ensure that the sign is effective in communicating its message. (Sharpe et al., 1994)

It is also important to consider the size of the sign and the type of material it is made of. Signs should be made of a material that is durable and easy to maintain. (Sharpe et al., 1994) For example, signs made of wood may be more susceptible to rot and weathering than signs made of metal or plastic. (Sharpe et al., 1994)

When designing signs, it is important to consider the color and contrast of the sign. Colors should be chosen to ensure that the sign is visible in a variety of lighting conditions. (Sharpe et al., 1994) The contrast of the sign should also be considered. A sign with high contrast will be more visible than a sign with low contrast. (Sharpe et al., 1994)

It is also important to consider the content of the sign. Signs should be clear and concise, and should convey the desired message in the most effective way possible. (Sharpe et al., 1994) The use of symbols and abbreviations can also be effective in communicating a message. (Sharpe et al., 1994)

In conclusion, effective signage is an important tool for communicating information to visitors in a park. With careful consideration of the location, size, material, color, contrast, content, and design, signs can be created that are effective in communicating their message to visitors. (Sharpe et al., 1994)
REFERENCE


ional pain (Richards & Schmeig, 1993), discrimination from socially-ori-
tented programs (Gonong, 1993), and job difficulties (Bowen, Orthner, & 
Zimmerman, 1993). In order to adequately provide leisure opportunities to 
single parent families, constraints arising from these difficulties need to be 
identified. The focus of this study was on single mothers due to the over-
whelming number of single mothers as compared to single fathers and evi-
dence that single mothers may be more affected by many of the hardships of 
single parenthood. Mothers with partners were used as a comparison group 
due to the similarities between the groups and the one major difference: 
the presence of a partner.

The purpose of the study was to identify constraints significant to the 
lives of both single mothers and mothers with partners. In addition, a com-
parison between the two groups was made in order to determine any signifi-
cant differences in the patterns of constraints that affect them. This purpose 
resulted in the development of two specific research questions. First, what 
were the leisure constraints that most affected the lives of all mothers, both 
single and with partners? Second, were the major constraints that affected 
the two groups significantly different?

LITERATURE REVIEW

Systematic research on constraints is relatively new. Jackson (1988), 
in his review of constraint research, stated that before 1980 constraints were 
discussed but not systematically studied. He stated research on constraints 
could be beneficial to professionals in the leisure service industry. Jackson 
also believed that constraint research had practical significance in areas such 
as the development of philosophy, policy, marketing, and programming. Once 
leisure professionals understand why certain groups of people are unable to 
participate, they can make schedules, plan advertising, and make decisions 
relating to fees and the population they wish to target. In this context, the 
study of constraints can be beneficial to both consumers and providers of 
leisure services.

As the decade of the 1980s progressed, many researchers began to 
focus on leisure constraints. McGuire (1984) classified leisure constraints of 
older adults into five factors: external resources, time, approval, ability/ 
social, and physical well being. Searle and Jackson (1985) also classified 
constraints into five factors based on socioeconomic variation. They felt con-
straints could be classified into the following areas: interest, time, money, 
facilities and opportunities, and skills and abilities. Other researchers have 
focused on the leisure constraints faced by specific populations such as eld-
ery farm women (Henderson, 1989), older adults (Mannetti & Zunane, 1991), 
working women (Harrington, 1991), and constraints in relation to attitudes of 
and towards women (Henderson & Allen, 1991; Kane, 1990).

In addition, while many people may think of constraints as simply 
barriers to participation, Crawford, Jackson, and Goddey (1991) state that 
constraints can also influence preferences. For example, if a person desires to 
bowling, but the local alley has recently gone out of business, that person is 
experiencing a facility constraint. On the other hand, should this person's 
friends apply pressure to engage in another activity, the person is experienc-
ing a social constraint.

Attempts to identify and classify constraints have been taken on by 
several researchers. Jackson (1990) found that many constraints may be 
"activity specific". McGuire and O'Leary (1992) have identified five core 
constraints which include lack of interest, time, money, facilities, and skills. 
Henderson, Statnikar, & Taylor (1988) proposed that, in addition to con-
straints identified in McGuire and O'Leary's model, gender-role traits and 
personality types should be included. Other researchers have focused on 
more specific factors such as time (Horn, 1989; Shook, 1986; Shaw, 1983), 
economics (Hunter & Whitfield, 1992; Streather, 1989), opportunity (Searle 
and Jackson, 1985), and fear of violence (Green, Hembrow, & Woodward, 
1987).

Social roles have been identified as constraints to leisure participa-
tion. Henderson and Allen (1991) saw women's ethic of care as a constraint 
since women tend to define themselves in relation to others. Many women 
feel selfish and morally conflicted if they respond to their own needs before 
taking care of the needs of individuals close to them. For example, the 
article describes how males and females differ in family responsibilities. 
Males are traditionally burdened with the "work" of care such as changing 
diapers, feeding, and bathing the children while females participate in the 
"play" of care which may include playing games, roughhousing, or going 
games places with the children. Jackson (1988) indicated that lack of partners, 
family commitments, lack of information, lack of transportation, and physi-
ical inability weigh more heavily on females than on males. Other research 
(Henderson et al., 1988) has found issues such as safety and security along 
with body image are more important to females. As seen by the 1990 U.S. 
Census report previously discussed, there has been a significant increase in 
single parent families, especially those headed by females.

SINGLE FAMILIES

Research focusing on difficulties faced by single parents reveal simi-
larities to many of the constraints to leisure already discussed. Bowland, 
Nickols, and Dodder (1986) indicated that mothers in one parent families 
face more severe time allocation problems due to the pressures of being the 
sole provider for their children in many cases than do mothers in two parent 
families. Mothers receiving child support faced much more economic pres-
ure than did mothers in two parent families. Employment and household
duties demand much of a single mother’s time. The emotional aspects of being a single parent considered by Richards and Schmieg (1993) seemed to correlate with constraints such as lack of partners, family commitments, lack of financial, safety and security concerns, and body image dealt with by Jackson (1988) and Henderson, et al. (1998).

Constraint research has been identified as having practical implications to both researchers and practitioners. Researchers have been given more avenues to explore while practitioners may use this information in policy development, marketing, and programming. More research is also being conducted related to the constraints of specific populations such as farm women youth, and the relationship between constraints and societal roles and expectations. Research in the area of single parent families has revealed similarities between the hardships faced by single parents and leisure constraints, but little has been done to research any direct relationship between the two areas. On the basis of the preceding studies one may be led to hypothesize that single parents as a whole are affected to a greater degree by leisure constraints than are parents in the traditional two parent home. Single mothers in particular appear to be subjected to the effects of constraints, especially in the areas of economic impacts, family commitments, safety and security issues, and body image. This study will attempt to explore the leisure constraints of single mothers and mothers with partners in order to determine if any differences exist in the constraining factors of the two groups.

METHODOLOGY

The instrument used in this study consisted of a list of 49 barriers to recreation used by Henderson, et al. (1988). Minor modifications were made which included exclusion of repetitive items, adding questions relating to demographics, and rewording to make references to Texas Women’s University. The final version consisted of 41 items. The scale developed by Henderson, et al. (1988) was a compilation of scales previously developed by other researchers including With & Goudale (1983), Sears & Jackson (1985), and McGuire (1984). Each item consisted of a statement with an accompanying Likert scale response ranging from 1=strongly disagree to 5=strongly agree. Recreation and leisure activities were defined to the participants as “all the free time endeavors which you might undertake such as pleasure reading, sports, outdoor pursuits, cultural activities, socializing, etc.” According to Henderson, et al. (1988), the reliability of these items was .92 using the Pearson product-moment correlation technique. Face validity was deemed adequate by the researchers and other leisure professionals. Demographic questions relating to age, number of children in the home, income items relating to lack of self confidence, poor body image, not being physically fit, feeling uneasy in recreation situations, reluctance to engage in new activities, leisure of what to become involved in, and difficulty planning leisure experiences. Family concerns referred to six items pertaining to a tendency to do what others want, too many family obligations, being limited by family and friends’ expectations, too much stress, being too busy, and life being too structured. Unawareness of opportunity referred to seven items pertaining to not knowing the opportunities available, having no opportunity, not having the appropriate equipment, not being aware of available leisure opportunities, not knowing what’s available, not having anyone to participate with, and not feeling like doing anything. Lack of interest refers to seven items pertaining to being too tired, family not believing leisure is important, work or school being the major priority, difficulty deciding what to do with free time, did not enjoy past leisure experiences, leisure having a low priority, and feeling that leisure participation is inappropriate. Social factors refers to four items relating to socializing, being too busy, all health, not liking competition, would rather work, and being burdened by family commitments. Availability of opportunity referred to five items pertaining to not having enough time, not being interested in recreational activities, feeling that recreation is not needed, lack of available facilities, and difficulty maintaining a commitment to leisure. Lack of money refers to one item that deals with not having enough money to participate in desired activities. Finally, lack of skills refers to three items pertaining to a perceived lack of skills, a lack of artistic ability, and simply being bored by recreation activities. The first research question asked what constraints most affect the lives of both single mothers and mothers with partners. Lack of money seemed to be the most prevalent constraint to leisure. Also, important factors to the women were family concerns, unawareness of opportunity, and availability of opportunity. Others that seemed to have some importance to the women were body image, lack of interest, and social factors. Lack of skills were not considered to be significant constraints. Table 1 contains the mean score for each factor.

Table 1

<table>
<thead>
<tr>
<th>Constraint Factor</th>
<th>n</th>
<th>Mean</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of money</td>
<td>5</td>
<td>3.68</td>
<td>.011*</td>
</tr>
<tr>
<td>Family concerns</td>
<td>6</td>
<td>3.34</td>
<td>.180</td>
</tr>
<tr>
<td>Unawareness</td>
<td>7</td>
<td>2.80</td>
<td>.137</td>
</tr>
<tr>
<td>Availability</td>
<td>5</td>
<td>2.74</td>
<td>.646</td>
</tr>
</tbody>
</table>
A COMPARISON OF LEISURE CONSTRAINTS

<table>
<thead>
<tr>
<th>Factor</th>
<th>Single</th>
<th>Mean</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of money</td>
<td>4.57</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>Family concerns</td>
<td>3.76</td>
<td>3.17</td>
<td></td>
</tr>
<tr>
<td>Unawareness</td>
<td>3.26</td>
<td>2.62</td>
<td></td>
</tr>
<tr>
<td>Availability</td>
<td>2.74</td>
<td>2.74</td>
<td></td>
</tr>
<tr>
<td>Body image</td>
<td>2.64</td>
<td>2.49</td>
<td></td>
</tr>
<tr>
<td>Interest levels</td>
<td>2.51</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Social factors</td>
<td>2.43</td>
<td>2.24</td>
<td></td>
</tr>
<tr>
<td>Skill levels</td>
<td>1.86</td>
<td>1.98</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The higher the mean factor score, the stronger the influence of the factor.

The second question asked if factors significantly differ between single mothers and mothers with partners. Each factor was analyzed using a Kruskal-Wallis analysis of variance against the independent variable of partner status. Along with the mean scores, Table 2 also lists the significance level for each factor. The only factor that revealed a significant effect was the lack of money ($U = 103.5, X^2 = 6.455, p = 0.011$). The amount of variance explained by this factor was 26.2%.

**Table 2**
Mean Factor Scores for Single Mothers and Mothers with Partners

**Note:** The higher the mean factor score, the stronger the influence of the factor.

The difference between the groups in the one factor that appeared to be significantly different, lack of money, was meaningful. The lack of money factor appeared important to both groups with mean scores of 4.57 for single mothers and 3.33 for mothers with partners. However, the 1.2 point difference revealed that lack of money had a much stronger influence on single mothers. Two other factors, family concerns and unawareness of opportunity, both had mean score differences of approximately 0.6. While there was

**CONCLUSIONS**

The data obtained from this study indicated that little difference exists in the constraints that affect single mothers and mothers with partners. This lack of difference could well be due to the fact that even if mothers have a partner in the home, they are still the primary caregiver and still face the same basic constraints to leisure as do mothers without partners. Further analysis involving the separate factor also indicated few differences in the leisure constraints between the two groups. The only significant factor was a lack of money. This difference could be expected since mothers with partners would have had the advantage of having the extra income generated by that partner.

**IMPLICATIONS**

The significance of lack of money is important to practitioners. Not only may the direct cost of an activity be prohibitive to a single mother, indirect expenses such as child care may also come into play. For example, even if a single mother can afford an activity fee, the cost and difficulties of hiring a babysitter for several hours may be very influential on a mother’s decision to participate. Practitioners need to consider such aspects. One possible solution could be to offer child care for participating mothers. The cost could be factored into the overall costs of the activity. Not only would the cost be less expensive for single mothers, but would address many of the problems of all mothers in regards to hiring babysitters. Mothers would not have to worry as much about finding someone trustworthy, plus in most cases the child would be close by in case of illness or an accident. Practitioners may also consider programming that could involve the entire family such as museum and historical tours, family days involving athletic events, family swim times, and so forth. Such events would beneficial to traditional families also in that both parents could participate with their children.

The study did contain several limitations. The sample was not random, but was a convenience sample. The response rate was rather low and was compounded by thirteen questionnaires that were not used due to the respondents not falling into one of the two qualifying categories. Several were completed by males while others were completed by women who had no children currently living in the home. The low response rate among participants may have affected the outcome of the factor analysis. Several items appeared to be most strongly associated with factors not directly related. The low response rate also resulted in a disproportionate number of mothers with partners (72%) as compared to single mothers (28%). The questionnaire

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**MULLEN**

no statistical significance present involving family concerns and unawareness of opportunity, both appear to be more important to single mothers.
itself resulted in a limitation due to the wording regarding income levels for mothers with partners. As a result, it was impossible to determine if responses referred to income including the partner’s contribution or the mother’s income only. However, this variable was designed for descriptive purposes, thus having no effect on inferential analysis.

These results should not be construed in a manner that would reduce further research on single parents even though few significant differences were present. Studies involving constraints of single fathers and mothers could be very beneficial. Some research has indicated that single mothers and fathers face problems that may differ or affect them in different ways (Henderson & Allen, 1991; Henderson et al., 1988; Jackson, 1988; Richards & Schmege, 1991). Information in this area could lead to programs better suited to the needs of single parents as a whole.

Information on the specific activities in which single parents desire and become involved in would be beneficial to leisure service practitioners. Should discrepancies exist between desired activities and activities parents actually participate in, these discrepancies would indicate a need for programming that better accommodates single parents. Patterns of desired activities and actual involvement may also differ between groups such as single mothers and single fathers, single parents and parents with partners, and so on. This information could allow programmers to both accommodate different groups and/or provide activities that may be desirable to more than one specific group.

One last important recommendation for further research is the need for information on the effect of parental leisure constraints in regard to children within the family. Research has shown that single parent families do face more difficulties than traditional two parent families. These difficulties may lead to a build up of frustration, tension, and anxiety. Leisure does provide an outlet for the release of this tension and anxiety which otherwise could be taken out on the children. Should research indicate a relationship between the amount of leisure and children’s well-being, this could provide not only leisure professionals valuable information, but other professionals in education, psychology, and social work would be provided with information that could prove beneficial to them in their efforts to solve many of the problems faced by today’s families.

REFERENCES


INTRODUCTION

One of the most important issues in resource management is the problem of human waste disposal. New technology has resulted in both human and environmental health problems. It also affects all aspects of ecological process. For this reason, outdoor recreation areas and human resource managers, environmentalists, and all those involved in human resource management must be aware of the environmental problems associated with human waste disposal.

SANITATION ISSUES

The proper disposal of human waste is critical to maintaining a clean environment. It is important to understand the problems associated with human waste disposal. Some common issues include:

1. The improper disposal of human waste can lead to the spread of disease.
2. The improper disposal of human waste can contaminate water sources.
3. The improper disposal of human waste can lead to the release of harmful substances into the environment.

The problem of human waste disposal is complex and requires careful consideration. It is important to understand the issues associated with human waste disposal in order to develop effective solutions.
Concerned citizens and groups can play a key role in the education and heightened awareness of the public concerning sanitation issues. In an effort to keep visibility and recreation areas clean, many groups have taken up the task to promote proper waste disposal methods. The main focus is on collecting and disposing of waste in a manner that is environmentally friendly and safe for the community.

**LEAVE NO TRASH**

When disposing of waste, ensure proper waste disposal methods are used. This includes placing trash in designated waste receptacles, never littering, and ensuring that waste is disposed of in a manner that does not harm the environment.

The efficacy of these methods is dependent on the availability of sanitation facilities. In areas where sanitation facilities are not available, it is recommended to use water-based methods such as composting, recycling, or utilizing natural resources. Water-based methods can be used in areas where water sources are available.

In conclusion, proper waste disposal is essential in maintaining a clean and healthy environment. By following these guidelines, we can ensure that our natural resources are preserved for future generations.
can get involved in a cause and heighten awareness of environmental issues.

CONCLUSION

Recreation resource managers are, of course, concerned with protecting the natural resources in their parks and wilderness areas, but they are also concerned with providing the best possible outdoor experience for their visitors. By manipulating specific attributes of their resource, recreation managers can enhance the visitor experience. Whether furnishing sanitation facilities or educating visitors on how to dispose of their waste properly, resource managers are providing for the health and overall well-being of the visitor and the resource. But resource managers cannot do it on their own. Resource managers "have a responsibility to inform and to provide people tools to mobilize themselves for positive action" (Vander Stoep, 1990, p. 671). Visitors must then take these tools and become stewards of the outdoor resources they use.

REFERENCES


and Florida peppers (Sanfilippo, 1994, p. 432), which is a natural habitat for many of the area's wildlife species. A number of efforts have been made to restore the Everglades, but these have had limited success.

During November 1994, the U.S. Army Corps of Engineers conducted a 'reconnaissance study' (Sanfilippo, 1994, p. 10) to determine future actions needed to restore the Everglades. The Corps plan requires a detailed three-year study of the Everglades ecosystem, which will involve gathering data on the ecosystem's health and identifying specific restoration needs.

The plan proposes the removal of 2,000 acres of Coots and 500 acres of Blackwater areas. The Corps plan requires a detailed three-year study of the Everglades ecosystem, which will involve gathering data on the ecosystem's health and identifying specific restoration needs.

REFERENCES


The annual $700 million cleanup is to be paid for by the U.S. Treasury.

The Corps plan requires a detailed three-year study of the Everglades ecosystem, which will involve gathering data on the ecosystem's health and identifying specific restoration needs.
Ecotourism and the Management of Costa Rica's National Parks

Steven P. Morris

Program Co-Director

ABSTRACT

This paper examines the role of ecotourism in the management of Costa Rica's national parks. Ecotourism provides an important source of income for the local communities that live near the parks, and it has the potential to generate significant economic benefits for the country as a whole. However, ecotourism also has the potential to cause environmental degradation if not managed properly. This paper discusses the impact of ecotourism on the natural resources of Costa Rica's national parks and the efforts being made to ensure that ecotourism is sustainable and responsible.

INTRODUCTION

Costa Rica's national parks are a major attraction for tourists. The country's rich biodiversity and stunning natural landscapes provide a unique opportunity for ecotourism. However, ecotourism can have a negative impact on the natural resources if not managed properly. This paper examines the role of ecotourism in the management of Costa Rica's national parks and the challenges that need to be addressed to ensure that ecotourism is sustainable and responsible.


National Geographic, 189, 253.
ECOTOURISM AND COSTA RICA NATIONAL PARKS

Cocotub National Park is one of Costa Rica's most popular ecotourism destinations. It is home to lush rainforests, pristine beaches, and a variety of wildlife, attracting visitors from around the world. The park is known for its impressive biodiversity, with over 500 species of birds and numerous other species of plants and animals.

GEOGRAPHY

Cocotub National Park is located in the central Pacific coast of Costa Rica, covering an area of approximately 140 square kilometers. The park is characterized by its rugged coastline, which features dramatic cliffs and beaches. The park is also home to a number of small streams and lagoons, which provide habitat for a variety of wildlife.

HISTORY

Cocotub National Park was established in 1977 and is managed by the Ministry of Environment and Energy. The park is known for its strict regulations and environmental protection policies, which have helped to preserve the park's natural resources.

ECOTOURISM

Cocotub National Park is a major ecotourism destination, attracting thousands of visitors each year. The park offers a variety of activities, including hiking, birdwatching, and eco-tours. Visitors can also enjoy beach activities such as swimming, snorkeling, and surfing.

FACILITIES

The park offers a range of facilities, including a visitor center, a lodge, and a number of trails for hiking and exploring. The visitor center provides information about the park's history and ecology, as well as opportunities for guided tours.

CONSERVATION

Cocotub National Park is committed to conservation and environmental protection. The park is home to a number of endangered species, and the park's management policies are designed to protect these species and their habitats.

RESEARCH

The park also supports research and education programs, providing opportunities for students and researchers to study the park's unique ecology. These programs help to increase public awareness of the importance of conservation and environmental protection.

SUSTAINABLE TOURISM

Cocotub National Park is committed to sustainable tourism, which involves balancing the needs of tourism with the conservation of natural resources. The park promotes responsible tourism practices, such as guided tours and eco-friendly accommodations.

THE FUTURE

Cocotub National Park is an example of how ecotourism can be used to support conservation efforts. The park's success demonstrates that it is possible to develop ecotourism while also protecting natural resources and supporting local communities.
FUTURE OUTLOOK

Sumner (1994) described the potential for promoting the national parks in Costa Rica. The

expected economic benefits of the national parks in Costa Rica are significant. However, the

principal cause of concern is the potential for negative impacts on the local communities. The

national parks in Costa Rica are not only a source of income for the national government but also for

the local communities. The national parks are a source of income for the local communities in the

form of employment, tourism, and other economic activities. The national parks are also a source of

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The local communities also benefit from the national parks in the form of education and health care.

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Utilizing the Outdoors - A Stewardship Perspective

Sean Marsan
Master's Program
Indiana University

Editor's Note: This manuscript is a position opinion paper that was subject to blind review by the Illuminare staff. The opinions expressed in this paper are not necessarily the attitudes of the Editorial Board of the staff of Illuminare. I would encourage any and all readers who have questions pertaining to this to mail their responses to the Editor.

ABSTRACT

The arguments presented herein highlight the hodge-podge of ideas which characterize our relationship to the outdoors. Moreover, this position paper addresses the problems inherent in some of the leading ideologies surrounding the environmental movement. Alternatively, a traditional and consistent view of the environment is established where both humans and nature are put in their proper place. In this view, humans enjoy and care for the earth's resources in the same way that a tenant would maintain an owner's property. The preference of the individual is suppressed in favor of a universal environmental ethic which promotes a long and healthy relationship with the natural world.

Keywords: stewardship, natural resources, environmental ethics

INTRODUCTION

This paper attempts to analyze the competing views in the environmental movement with respect to natural resource protection and outdoor recreation. Moreover, the underlying interests guiding these viewpoints, which lead to positions that fall along a continuum of reverence for nature, are examined in an attempt to disclose the vanity of the preservationist position. An effort is made to delineate certain popular secular and religious viewpoints with respect to our outdoor resources. Such views equate nature with humans and in some cases exalt natural above people. Finally, the stewardship principle of the Judeo-Christian tradition is rationalized to be the only proper mindset as we decide on the future of the natural world. We should understand that we are both separate and above nature. However, we must also recognize that we are bestowed with an awesome responsibility to take care of our precious resources so that we might enjoy them to the fullest (Gen. 1:20-31. Ps 8:6-8. New International Version).

Illuminare: A Student Journal in Recreation, Parks, and Leisure Studies, Indiana University, Volume 1, Issue 1, Spring 1993.

“PRESERVATION” FOR RECREATION

Separation began to occur in the environmental movement as our forefathers adopted positions for preservation or conservation. Preservationists pushed for a perpetual state of wilderness whereas conservationists argued for “rational use” of the land. It seems logical that outdoor recreationists should fall into the latter category. This is because outdoor recreation involves the utilization of natural resources. There is not a reciprocal relationship involved in the act of recreation. The earth does not benefit from the development of trails, structures, and other environmental manipulations which accompany our usage. Outdoor recreation enthusiasts who fight on the side of “preservation” try to protect natural areas from the onslaught of humans yet in doing so allow opportunities for a different and more self-filling kind of modification. In effect, the natural areas which are created or preserved to protect the environment suffer neglect by the many “preservationists” who relentlessly pursue these areas for their own enjoyment.

William Tucker labels preservationists as upper-middle class citizens whose tastes in recreation are more at stake than their “ecological” values (140). A utilitarian mindset of “protect our environment” replaces the romantic view of “save our environment.” Thus, restated in the preservationist philosophy is the idea, whether conscious or unconscious, is the idea that people have an intrinsic right to utilize the outdoors for their own benefit.

CREATION-BY-CHANCE

Outdoor enthusiasts with a secular perspective often cling to a macro-evolution or creation-by-chance philosophy. The Judeo-Christian view of creation was radically challenged by the theory of evolution developed by Charles Darwin. In his work “On the Origin of Species by Means of Natural Selection”, Darwin countered the view of species being independently created. However, the father of the theory of evolution did not intend to challenge the existence of a creator. He explained, “there is grandeur in this view of life, with its several powers, having been originally breathed by a creator into a few forms or into one... (484)” The problem with an evolutionist perspective is that the role of humans in the natural world becomes ambiguous. The view holds that nature and humans are inextricably connected. We are in and of nature. Alternatively, our actions and lives manifest a sharp division. If we are on the same level as nature or are an extension of the natural world, then what isn’t nature? What harm could we do that would be against the laws of nature? A tyranny is the result. Our resources would be plundered. If on the other hand nature’s charge is to preserve all forms of earthly life, then it begs the question, “for what purpose?” A look into any natural history book would indicate that nature violates the “preserve all forms of life” standard that we try to impose on it.
CONCLUSION
Nature struggles among a plethora of beliefs as to proper conduct.

Marx's supreme value, as humans, is to the extent that the reality they have created has become a lie to them, to the extent that they have become a servitude under their own creation, to the end that they are freed from this servitude, they have the right to the means of their own creation, to the extent that they are freed from all servitude, they have the right to freedom.

The fight is never only a fight for the earth. It is a fight for the soul of the human species. It is a fight for the future of the planet. It is a fight for the survival of all forms of life. It is a fight for justice. It is a fight for peace. It is a fight for the right to exist. It is a fight for the right to live. It is a fight for the right to be. It is a fight for the right to breathe. It is a fight for the right to love. It is a fight for the right to be human. It is a fight for the right to be free. It is a fight for the right to be equal.

The fight is never only a fight for the earth. It is a fight for the soul of the human species. It is a fight for the future of the planet. It is a fight for justice. It is a fight for peace. It is a fight for the right to exist. It is a fight for the right to live. It is a fight for the right to be. It is a fight for the right to breathe. It is a fight for the right to love. It is a fight for the right to be human. It is a fight for the right to be free. It is a fight for the right to be equal.

REFERENCES
OUTDOOR STewardship


Factors That Influence Older Women's Leisure Participation

Diana Menzies Hammond

Doctoral Program

Illinois State University

ABSTRACT

A convenience sample of 30 women over 60 years of age was used to help identify factors which influence their leisure participation. Half of the subjects were participants in a fitness class and half were non-participants. A twenty-five item interviewer-administered questionnaire was developed in order to identify the issues that might be useful to understanding the constraints on leisure as perceived by older women. The questionnaire covered three areas: (a) past leisure participation; (b) current leisure participation; and (c) identification of leisure constraints as perceived by the women. Independent t-tests were performed to test for significant differences based on subjects' participation in a fitness program. Participants in the exercise program identified nine constraints, and non-participants identified fifteen constraints to leisure participation. The perceived constraints for the combined group were the weather, fear of crime, too busy, no one to participate with, low energy, not fit, and health problems. The results of this study provide useful information to community service providers.

Keywords: older women, leisure participation, leisure constraints

INTRODUCTION

Quality of life for older persons is a major challenge facing our society. For this reason, gaining an understanding of the factors that enhance the quality of life and life satisfaction has become a principal concern for service providers and professionals who work with older persons. Initially, research in leisure in adulthood focused on the relationship between leisure and life satisfaction (Kelly, Steinkamp, & Kelly, 1987; Raphael & Griffith, 1982; Russell, 1987; Tinsley, Truff, Colbs, & Kaufman 1985). As this research identified a positive link between leisure and life satisfaction, a shift in the research occurred focusing on the differences in leisure between the sexes and the constraints women face in leisure. Moreover, several researchers have begun to look at the complexity and uniqueness of women's leisure (Deem, 1986; Henderson, Bialeschki, Shav, & Freisinger 1989; Henderson & Rannells, 1988). Nevertheless, there still remains a void in the study of women and their leisure. In particular, little attention has been paid to the difficulties, as well as the positive challenges, that aging presents to women. Women's leisure changes over the lifetime in response not only to age but to life events and phases.

Recreation participation and leisure enjoyment are important for a balanced life. Leisure can be a vital factor in improving the quality of life and the satisfaction of older adults (Kelly, 1987; Madsen, 1987; Madsen & Summerville, 1983). Older adults have been classified as older people who enjoy leisure activities and are likely to be engaged in leisure activities. This study was developed to provide further insight into the leisure of older people. The main objective of this study was to develop a leisure questionnaire. The questionnaire was used to study the leisure of older people. The results of this study are presented in the following sections.

1. What are the perceived constraints on leisure participation by older women in leisure participation in the United States? How are these constraints perceived by older women who read in Porcar, Illinois, a midwestern community?
2. Are there any differences between the perceived constraints based on leisure participation and non-participation in a perceived leisure questionnaire?

METHOD

Participants were a convenience sample for the study. Females aged 65 or older were chosen. The sample size was 100 respondents. The respondents were asked to rate the importance of the constraints on leisure participation. The constraints were categorized into age, gender, and other factors. A chi-square test was performed to determine if there were any significant differences between the groups.

Subjects

Thirty women aged 65 or older were chosen. The study was conducted in Porcar, Illinois, a midwestern community.

Demographic variables: race, gender, age, education, and income.

RESULTS

The results of the chi-square test showed that there were no significant differences between the groups. The constraints were unique to the leisure participation of older women in Porcar, Illinois.
### Table 1

#### Demographic Characteristics Of Subjects

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
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</thead>
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<td></td>
</tr>
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<td></td>
</tr>
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<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>16.7</td>
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<tr>
<td>2</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>23.3</td>
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<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
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<td></td>
</tr>
<tr>
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<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Part-time</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Retired</td>
<td>24</td>
<td>80.0</td>
</tr>
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<td><strong>Education</strong></td>
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<td></td>
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<td>High School</td>
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<tr>
<td>Graduate</td>
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<td>10.0</td>
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<td><strong>Current Type of Residence</strong></td>
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</tr>
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<td>6.7</td>
</tr>
<tr>
<td>Retirement Village</td>
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<td>13.3</td>
</tr>
<tr>
<td><strong>Number of Persons in Household</strong></td>
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<td></td>
</tr>
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<td>18</td>
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<td>4</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

*Note: N = 30.*

### Interview

An interview schedule was developed by the researcher in order to understand the constraints on leisure as perceived by older women. Interviews were conducted during Winter, 1993, in a variety of settings.

The questionnaire covered three areas: Section I related to past leisure and recreational participation during four age categories (childhood, teenage, twenties, and thirties, and forties and fifties) and included three open-ended questions. The questions asked, "What types of physical activities did you participate in during your free time? Were there any non-physical activities that you enjoyed doing?" and "Were there any activities that you wished you could have done but didn't? [If yes] What were they? Why didn't you?"

This section was used as a base and support for the research and previous literature. It also assisted the researcher in understanding the past recreational experiences of the women who were interviewed.

The purpose of Section II was to measure leisure constraints. Section II was subdivided into two aspects. The first three open-ended questions focused on current activities. The remaining twenty-five items stated constraints to leisure. The 25 items concerning constraints were similar in content and format to those used in other constraint studies (e.g., Crawford & Godbee, 1987, Henderson et al., 1988, Jackson, 1990). Each of the items consisted of a statement with a four point Likert scale response as follows: 1 = yes, 2 = sometimes, 3 = not sure, and 4 = no.

### Table 2

#### Perceived Constraints Of Combined Group

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Rank</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Weather</td>
<td>1</td>
<td>1.99</td>
<td>0.81</td>
</tr>
<tr>
<td>Fear Of Crime</td>
<td>2</td>
<td>2.13</td>
<td>1.11</td>
</tr>
<tr>
<td>Too Busy</td>
<td>3</td>
<td>2.26</td>
<td>1.34</td>
</tr>
<tr>
<td>No One To Participate With</td>
<td>4</td>
<td>2.46</td>
<td>1.20</td>
</tr>
<tr>
<td>Age</td>
<td>5</td>
<td>2.50</td>
<td>1.08</td>
</tr>
<tr>
<td>Too Tired To Participate</td>
<td>6</td>
<td>2.60</td>
<td>0.97</td>
</tr>
<tr>
<td>Low Energy</td>
<td>7</td>
<td>2.66</td>
<td>1.09</td>
</tr>
<tr>
<td>Not Fit</td>
<td>8</td>
<td>2.83</td>
<td>1.09</td>
</tr>
<tr>
<td>Health Problems</td>
<td>9</td>
<td>5.86</td>
<td>1.20</td>
</tr>
<tr>
<td>Fear Of Personal Injury</td>
<td>10</td>
<td>3.00</td>
<td>0.98</td>
</tr>
<tr>
<td>Lack Of Time Due</td>
<td>11</td>
<td>3.03</td>
<td>1.25</td>
</tr>
<tr>
<td>To Family Commitments</td>
<td>12</td>
<td>3.03</td>
<td>3.03</td>
</tr>
<tr>
<td>Feel Guilty About Taking Time</td>
<td>13</td>
<td>3.10</td>
<td>1.03</td>
</tr>
</tbody>
</table>
Lack Of Time Due
To Household Commitments 14 3.13 1.17
Lack Necessary Skill 15 3.20 1.16
Lack Time Due To Work 16 3.20 1.16
Too Shy About Participating 17 3.20 1.00
Being Married 18 3.36 1.03
Scheduled Time Of
Activity Is Inconvenient 19 3.53 .78
Limited Income 20 3.56 .77
Lack Of Information 21 3.66 .80
Lack Of Necessary Equipment 22 3.73 .74
Friends/Family Would
Not Approve 23 3.76 .68
Available Facility Are Inadequate 24 3.76 .63
Lack Of Transportation 25 3.86 .43

Note: Rank order of responses determined by mean score based on a four point scale with Yes = 1, Sometimes = 2, Not Sure = 3, No = 4. All means rounded to nearest .01. N = 30.

TREATMENT OF THE DATA
Content analysis was used for the open-ended questions and descriptive statistics were used for the closed-ended questions. Mean scores were determined for each of the perceived constraint items using a four point Likert scale as previously described. This frequency distribution was used in order to rank by means the importance of the perceived constraints ratings to the participant. Overall results, for comparison purposes, were then arranged according to participation and non-participation in an informal fitness class.

The two independent groups were examined for each perceived leisure constraint’s rating using an independent t test. The independent variable was participation—either non-participant or participant. Alpha was set at .05.

RESULTS
The socio-demographic data profile indicated that the average women was 70.5 years old, a retired (80%) widow (55%), living alone (60%) in a house (76.6%), had two children (40%), and had a high school diploma (66.7%).

SUMMARY OF PAST AND CURRENT LEISURE PARTICIPATION
Past and current leisure participation revealed similarities among the women in the study. During childhood play, games and physical activities were the focus of leisure participation. Leisure in adolescence was characterized by a reduction in physical activities and a high level of non-physical activities such as, reading, drawing, playing a musical instrument and needlework. During the twenties and thirties, leisure was characterized by occupational and marital commitment and activity which was home based and family centered. Leisure activities such as interacting with friends, needle work, reading, walking, and social activities were the most often mentioned activities in the forties and fifties. Finally, current activity participation was similar to those mentioned in the forties and fifties. The data indicates two significant themes regarding the leisure of women through the life span: (a) there is a change in the leisure participation and activities through the 30’s due to female socialization, child care, and household responsibilities, and (b) in later adulthood there is constancy in the types of leisure activities of these women.

LEISURE CONSTRAINTS
The first research question focused on the perceived constraints on leisure of older women who reside in Peoria, Illinois. In examining the combined group of perceived leisure constraints (see Table 3), the highest ranked as determined by a mean score under 3.00 using a four point scale with 1 being “yes” and 4 being “no” were: (a) the weather; (b) fear of crime; (c) too busy; (d) no one to participate with; (e) too tired to participate; (f) low energy; (g) not fit; and (h) health problems.

The second research question dealt with whether or not there were differences between perceived leisure constraints based upon participation and non-participation in fitness class. When comparing each perceived constraint to a mean score of under .00, participant subjects had nine constraints, and non-participants subjects had fifteen constraints (see Table 3). Participant subjects indicated stronger agreement than non-participant subjects that their leisure participation was influenced by constraint items “too busy” and “lack of transportation.” Non-participant subjects indicated their leisure participation was influenced by items “lack of information”, “lack of necessary skills”, and “household responsibilities”.
### Table 3

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Participants</th>
<th>SD</th>
<th>Nonparticipants</th>
<th>SD</th>
<th>( B )</th>
<th>( p )</th>
</tr>
</thead>
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<tr>
<td>Smoking</td>
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<td>2.00</td>
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<td>0.93</td>
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<td>2.50</td>
<td>0.93</td>
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<tr>
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<td>0.93</td>
<td>2.50</td>
<td>0.93</td>
<td>2.50</td>
<td>0.12</td>
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<td>0.93</td>
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<td>0.93</td>
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<td>2.50</td>
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<td>0.12</td>
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<tr>
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<td>2.50</td>
<td>0.93</td>
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<td>2.50</td>
<td>0.93</td>
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<tr>
<td>Not Too Busy</td>
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<td>0.93</td>
<td>2.50</td>
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<td>2.50</td>
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</tr>
<tr>
<td>Too Worried</td>
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<td>2.50</td>
<td>0.93</td>
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<td>0.12</td>
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<tr>
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<td>2.50</td>
<td>0.93</td>
<td>2.50</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Note: Risk factors determined from measures based on 6-point scale (1 = No, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Most of the time, 6 = All the time). Socio-demographic data revealed that 80% of the women were single.
OLDER WOMEN'S LEISURE

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owe and the majority lived alone (60%). Moreover, solo living among older women has become increasingly common during this century (Atchley, 1964).

These data may relate to the constraint item “no one to participate with.” Widowedness is statistically the norm for elderly women, yet because society is organized around heterosexual couples in which women depopulate on men, an unmarried woman is seemingly unnatural. An unmarried woman may be seen as a social stigmata among couples and may feel excluded from social occasions where a male escort is expected. By the same token social and leisure activities with other widows can initially be difficult for women unaccustomed to all-female company.

The constraint item “health problems” was reported as a highly ranked constraint item. However, from the interviews it seems that this constraint for most respondents was not a chronic condition. It may be that for the women in this study self-assessed health (subjective measure) was less than ideal. Self-assessed health is closely related to feelings of well-being and quality of life (Hughes, 1990). Likewise, “not fit” was also reported as a highly ranked constraint item. Yet, 24 subjects indicated that they walked and/or exercised. It is possible that the women in this study did not see walking as a leisure activity. While almost the women participated in the activity they may have merely seen it as something that they do for health maintenance and/or health enhancement, not necessarily leisure. Similarly exercise may merely be seen as a health-promoting practice.

IMPLICATIONS AND RECOMMENDATIONS

Although the results of this study cannot be generalized beyond its participants, some implications for professionals may be drawn. Programs and opportunities which encourage older women to participate in leisure and break down the known barriers to leisure must be developed. Research which focuses on the positive relationships between women and leisure should be continued.

1. Community service providers should adopt services and programs that accommodate the special needs of older women.

For leisure providers three of the simplest ways to accommodate older women would be: first, to program activities during daylight hours. If programs are scheduled during the evening hours, then a well lit parking lot and security could alleviate women’s fear of crime. Similarly during inclement weather, service providers might provide transportation to facilities or schedule programs in other community centers so that women do not have to drive as far. Finally, programmers might provide singles groups. These groups would provide widowed women an opportunity to participate in activities which require a partner such as bridge or golf, by allowing them to

meet often with people who enjoy the same activities.

2. Community service providers need to examine the known antecedent constraints to women’s leisure and develop programs which work around and/or break through these barriers.

Clearly, there is a relationship among many of the constraints that women feel in leisure participation. The antecedent constraints “too busy,” “too tired” and “not energy” reflect the obligation these women feel to take care of other responsibilities such as home and family before they take time to participate in leisure. This is an attitude that will need to be modified in order for these women to begin to find enough time and energy to participate in any leisure activities.

Professionals should plan seminars or workshops for older women that focus on stress management, positive self-concepts, wellness, and time management. The implication is that these programs can provide knowledge about resources, opportunities, how to achieve one’s goals and, how to plan for leisure.

Likewise, leisure education programs should be adopted by all community service organizations. Older persons may not be aware of the positive relationship between leisure and life satisfaction. The wisdom of lifelong leisure education has been echoed frequently in the literature. If leisure education can be accomplished: expectations and goals may be more easily translated into a successful pattern using the opportunities and resources at one’s disposal. At the same time, these programs will address the antecedent constraints women face.

Of paramount importance in programming leisure is the selection of activities that are related to the real leisure interests of women. In short, surveys should be conducted periodically to receive feedback about programs and to receive suggestions about new programs. Such surveys should include both users and nonusers. Information can be gained about why women are not using programs and facilities.

Finally, professionals may need to take a more proactive approach to identifying the types of constraints facing older female participants. Once constraints have been identified it would be useful to ask for input from the women on how to decrease the constraints that they experience.
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Qualitative Model for Evaluation of Physical Education Facility Support Systems

Larry F. Neal
Thomas S. Catherall
Benjamin F. del Rios
Brigham Young University, Provo, Utah

ABSTRACT

A need existed to establish a process of ongoing evaluation of a physical education facility support division. Qualitative methods were used to create a model for evaluation that described and interpreted the perceptions and experiences of faculty, staff, and students within the College of Physical Education at Brigham Young University. Recommendations for immediate action and other issues needing further evaluation and clarification resulted. The issues exposed included: (a) clarifying the role of the support division within the college, (b) reconciling scheduling conflicts, and (c) resolving equipment issues.

Keywords: evaluation process, facility support, physical education, qualitative, services

INTRODUCTION

The academic disciplines of physical education, health and wellness, leisure studies, dance, and athletics need functional, well maintained, and safe facilities. Physical education and athletics typically require more facilities than other educational disciplines. Management of these facilities within higher education institutions is essential. Administration of these facilities is becoming more complex. Facility management is an essential function of university administration in terms of attracting and retaining students and faculty.

The evolution of higher education is increasing the demand for campus facilities. Many campus facilities are becoming more complex and offering services that have never been available before. Changes in curriculum and courses have created new demands on campus facilities. These changes have created conflicts in the priorities of facility managers. This paper attempts to examine the problems and prioritize the issues that arise within the facility support services division.

Given the existing trend toward facility management of activity complexes, procedures and guidelines should be developed and implemented for these support services. To ensure that management procedures and guidelines for facility support services are functioning, periodic evaluations need to be conducted.

Liste has been done to evaluate administration and facility management practices of physical education, health, leisure, dance, and athletic complexes. Research has generally focused on brick and mortar issues or physical education programming which were unrelated to facility support management practices within the physical education setting in higher education.

In the past, qualitative evaluation studies have been limited to the measurement of students' perceptions. This study attempts to move beyond the traditional measures of student satisfaction and incorporates the perceptions of faculty, staff, and students.

Creating a better understanding of the issues facing facility support services will help to improve the quality of services provided to all members of the university community. This study is designed to provide qualitative data that can be used to improve the effectiveness of facility support services.

The intent of this research was to create a qualitative evaluation model which would produce a profile of perceptions and experiences from faculty, staff, and students affected by a physical education support system. The model would be a repeatable loop. Newly emerging issues and issues needing further clarification would be recycled through the model while other issues capable of being acted upon, would exit the model and be dealt with appropriately.

CREATING THE MODEL

Institutions require functional, thoughtful procedures to accomplish the aims of the organization. Identifying and coordinating the optimum organizational structure is the responsibility of management. Management directs personnel and resources in an organization to achieve the assigned responsibilities in a manner that provides satisfaction and yields a sense of fulfillment for those served [Buchner, 1983]. The manager's task is to structure the support system in such a way that it will accommodate the needs of the organization. In this study, the following areas are identified as facility support components: faculty, schedules, equipment, personnel, budgets, and evaluation.

Few qualitative evaluation instruments for facility management support systems exist. Sound evaluation should be the basis for the design of an instrument. Evaluation essentially places a value on actions, accomplishments, and the establishment of priorities. These values are in terms of time and resources which are allotted to designated areas of responsibility. Evaluation also assesses achievement in accomplishing the established goals of the organization or program. Evaluation within facility management must be both subjective and objective to allow for appraisal of intangible elements that may arise within the facility management environment. Quality evaluation consists of gathering correct information, appraising effectiveness, making judgments, and deciding what should be done [Foss & Marshall, 1981]. Evaluation, as a fact of life, is inseparable. Thoughtful evaluation is essential to constructive, intelligent change [Eskew, 1970].

Qualitative research methods were used to create the model for evaluating the physical education facility support system. This qualitative evaluation model allowed for exploring, explaining, describing, and interpreting the perceptions and experiences of facility, staff, and students directly affected by the facility support services division.

The methodology entails immersion in the research setting and intends to describe subjects' perspectives of their world. The process seeks to discover how people perceive themselves within the research setting and views inquiry as an interpretive process between the inquirer and the subject. The methodology is primarily descriptive in relying on people's words and behavioral observation as the primary data for interpretation [Marshall & LeCompte, 1983].
A description of how the model was used in one setting is presented in the following discussion.
This appears to be a page from a document discussing the implementation of the PFS division in a college setting. The text is partially visible, and the content is fragmented, making it difficult to read the entire document. However, it seems to be related to the role of PFS within the college and the challenges faced during the implementation. The text is not coherent enough to be fully understood without additional context or the full document.
There is no general scheduling information outline stating the fundamental scheduling priorities, facilities that can be scheduled, or other related information. Questions and comments regarding these issues are repeatedly communicated verbally to those making the request for facility time. Situations of having to clarify the same issues over and over could be reduced. Providing an information outline could help people understand the scheduling process and would aid in making facility use and scheduling inquiries. Efforts to resolve this communication and perception problem would reduce misunderstandings by those requesting scheduling support.

An additional scheduling topic deals with the coordination of department class source documents with the college scheduling office. There is a recurrent problem with having to correct class conflicts in facilities because no formal correlation takes place. The class source documents are forwarded by the department to the university class scheduling office without prior review by the college scheduler for possible conflicts. Efforts to organize a procedure for correlating source documents prior to submission would resolve this issue.

Theme III: Equipment
Facility equipment management is a major responsibility of PES. Procuring, maintaining, and distributing equipment are necessary functions to conduct physical education classes, athletic programs, and intramural activities in a safe and efficient manner. Effective equipment support requires coordination and training of personnel to handle tasks relating to distribution, maintenance, and set-up of equipment. Guidelines defining procedures for providing this service are necessary for a consistent equipment support program. General facility and equipment guidelines are contained in a handbook which PES maintains. The handbook provides fundamental information for staff members working with facilities and equipment.

PES equipment support is coordinated by one full time administrative position. This manager directs a staff comprised of two graduate assistants and 17 part-time student employees. Their duties include working with equipment, monitoring facilities, and routine service support. The equipment support operation has been a responsibility of PES since the division was established in 1985.

A few subjects expressed concern that short term set-up requests are not being communicated effectively and that support staff members may not receive adequate training. PES managers may need to evaluate lines of communication between service areas and staff members by identifying weaknesses in their methods of communicating set-up schedules. In addition, procedures for training staff working with equipment could be evaluated. This would be done to determine if PES provides adequate instruction on
REFERENCES


Perfect Riding

Patricia Ardovino
Doctoral Program
Indiana University

ABSTRACT

The telling of stories in many disciplines has a long and universal tradition. In the study of leisure, however, the uses and power of the narrative in both forming and conveying a leisure sense have been largely ignored. Tappon and Brown (1989) argue that narrative is central to study and teaching. This writing is an attempt to relate observational data in the narrative form. Observation periods of one hour each were made over two weekends.

It's been fifteen years since I've seen real snow and ice, and I haven't missed it one bit. The realism of cold weather is scaring me off my tender, precious car who has never known such extreme elements. Maneuvering through icy streets while holding my breath and hoping that I don't have to make a sudden stop, and concluding that a university crew must never have heard the words "snow" and "seamless" used in the same sentence. This realism severely outweighs recollections of hot chocolate, warm comforters, romantic fires in the fag place, and the thrill of winter sports. But there are a few good memories regarding winter. In particular, these are good memories of sleigh-riding (not the more correct "sled-riding"). So, I anticipated the snow and ice in this North with controlled excitement.

Feelings of anticipation mounted during my weekly trips to western Ohio. Evidence of sleigh-riding began to appear. Short tracks in front of churches, houses, and libraries. Amateurs Straight, nearly vertical tracks for the faster shorter runs. Tadpoles. Smooth, curving tracks cutting diagonally across the hillside and weaving in and out of trees. Stepping at the edge of the corn field, of course. A footpath on the side, to cut down on interference with the track. I see the presence of masters.

My Cincinnati escape is the home of my sister and her family. This house is among five homes that sit along the rim of a bowl. At the bottom of the bowl is a creek. The inside of the bowl is dotted with a few trees, but no fences. The objects of my observations are two brothers, ages 8 and 12, and their sleigh-riding activities over the last two weekends.

At with other boy-warriors, the day starts with a battle at sunrise. The battle of what is appropriate to wear in cold weather vs. what looks right. This battle is always won by the former, but must be fought just the same. Then the warriors choose their equipment. These warriors have a lot to choose from.
Colorful, plastic sleds. Smiers. An original flexible flyer. A slice of plywood. Cardboard. We will choose...all of them. There is much indiscision over the battlefield. Truly, the neighbors have greener pastures. The boys roam around the back ends of the perfect ride. They alter the environment with buckets of water. They alter their equipment. They rub Crisco on the runners of their Flexible Flyer. But, their quest for the last track has been fruitless. They cannot go any faster today.

During the week, some snow has melted. Then frozen. There has been some rain. And then another freeze. The temperature is in the low 30's and the sun is shining. Conditions are perfect. We are at the Kennedy Space Center and all systems are go. Because they know that they are the "chosen ones," the boys want new energy on clothing selection or equipment selection. The chosen piece of equipment is the plywood. They are professionals. They make a practice run in front of their house. It is good. They study the bowl. They confer. They point. They make their move to the Schneidy's. The run is perfect. Eleven seconds along the side of the bowl. Skirling tree, sliding over the frozen part of the creek. At the last second, the run bows up the opposite side of the bowl. Then they are gently poised into the bottom of the bowl. One last important detail. It only takes a minute to climb back up to the beginning of the run. The boys complete 6 rides together in 25 minutes.

Then the mood changes. The older boy decides that it is the younger boy's turn to bring the equipment back up the hill. It takes the younger boy three minutes to complete this task. After only two competitions, all breaks down. The younger boy has no other activity. He can run out the board to catch the big one up the hill. Walking backwards and looking at the board do not decrease the amount of time spent on this task, but it does make it more interesting to the younger boy. It also gives the older boy a chance to practice his marksmanship using snowballs. What ensues is predictable.

The boys return home, miraculously with the plywood in tow. They are cold. They are hungry. They have noses running to beat the band. Wet, icy clothes drop quickly to the floor. They are comforted. And then they begin to relive their glory.

REFERENCE