

Multiple Use Management Preferences by Visitors with Differing Leisure Identity Salience

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Executive Summary: Multiple use area management is of particular interest to both outdoor and urban planners due to an increase in and diversity of users. These areas pose special management challenges due to the diverse and potential conflicting interests involved. Diverse users are frequently excluded from management decisions, however. Further, when visitor input is solicited, it is typically in response to researcher driven management options. In addition, visitors are often artificially segmented by activity type alone, discounting participation in multiple activities or related identities. This exploratory paper openly assesses visitors' management preferences for multiple use areas and then addresses potential differences according to their leisure identity salience (LIS). LIS is suggested as a way to segment visitors because it goes beyond activity style and measures the personal and social meanings of an activity with a brief scale. Findings may provide additional insight for managers regarding visitor management preferences, as well as indications of how useful the LIS is as a segmentation tool. Twenty respondents, selected from an onsite survey of 369 recreationists and stratified by LIS and gender, participated in qualitative interviews focused on management preferences for multiple use areas. Results indicate overall positive responses to indirect management techniques, concerns about access and regulations, as well as some differences in preferences by LIS. Specifically, open inquiry results found education and separation mentioned most frequently by respondents. Differences by LIS did emerge with high LIS interviewees more frequently mentioning education and site modification and low LIS separation. In direct responses to five commonly employed management techniques, education and separation emerged as most preferred. Joint planning received favorable responses as well. Permanent prevention from use and regulation, however, elicited more negative responses from participants. Therefore, managers are encouraged to employ educational techniques whenever possible in managing multiple use areas. When new areas or changes to existing areas are suggested, well advertised joint planning efforts are encouraged. Separation, interviewees suggested, is best limited to new or newly opened areas as prevention from use appeared to impinge the most on recreationists' freedoms.

Keywords: indirect and direct management, visitor input, freedom, access, leisure identity salience

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Introduction

Multiple use trails, those that accommodate more than one type of use, have increased due to specialization and technology changes. For example, participation in mountain biking increased 458 percent from 1987–1997, fitness walking 42.8 percent while hiking remained steady with a 0.7 percent increase (Sporting Goods Manufacturing Association, 1998). Further, recent funding of 30 million dollars for the United States National Recreational Trails Funds in 1996 and 1997 suggests trails are receiving increasing attention (Sprung, 1996). The trend in multiple use areas seems likely to continue and so do the associated management challenges. The role of the manager in providing recreational use is evolving and subsequently, uncertain (Jubenville, 1986). Multiple use trail managers are challenged by multiple duties to protect natural resources, provide recreation experiences, and maintain safety (Moore & Barthlow, 1997). Managing multiple use areas is particularly challenging due to the number and diversity of interests potentially involved in management decisions.

Multiple use area managers have a variety of tools at their disposal, including education through use restriction. Ironically, visitor management techniques are frequently implemented based on manager expertise and preferences, rather than on visitor preferences. This practice appears anachronistic given the trend toward direct public participation in administrative procedures (Tipple & Wellman, 1989). Although the manager is conceptually concerned with management impacts and their effects on visitation patterns (Jubenville, 1986), minimal visitor input appears to actually occur. The purpose of this study was to ascertain visitor preferences for multiple use management and assess potential differences based on leisure identity salience. Leisure identity salience, the importance of the leisure identity that reflects both social and personal commitments, goes beyond simple activity visitor segmentation in a short scale.

Multiple Use Area Management

Multiple use area managers have a variety of options to choose among, although no one best method exists (Moore & Barthlow, 1997). Management options are frequently categorized as strategies or tactics (Manning, 1985). Strategies are conceptual approaches to management and related to achieving management objectives (Manning, 1985). Similarly, tactics are actions taken to achieve management goals. Tactics are typically classified according to their impact on visitor behavior: direct or indirect (Lime, 1976). Direct tactics emphasize behavior regulation through fines or use limitations whereas indirect tactics aim toward behavior modification by education or physical site alterations. Indirect tactics are also presented as light-handed, as opposed to the heavy handed direct approaches which, as “intrusive design and coercive management, are not compatible with high quality trail experiences” (Moore & Barthlow, 1997, p. 14). In spite of

substantial discussion of the direct-indirect continuum, "no research to date has identified the degree of 'heavy handedness' of different management actions" (Brown, McCool & Manfredi, 1987, p. 332). The "direct-indirect continuum is, however, a spectrum of management input, not impact to visitors" (Watson, Asp, Walsh & Kulla, 1997, p. 33) and the degree to which these management techniques actually impact visitor experiences has not previously been explicitly measured.

When deciding among management options, those in charge of the resource area frequently implement tactics based on their own expertise and perceptions, or on agency tradition (Fish & Bury, 1981). Management response to these challenges vary and this appears "to result from personal opinion and, in almost all cases, actions are taken without much pre-existing data" (Cole, Watson, Hall, & Spidle, 1997, p. 1). Frequently, discrepancies exist between manager and visitors' perceptions. For example, Ibitayo and Virden (1996) found park visitors perceived lower levels of depreciative behavior than park managers. Watson et al. (1997) found visitor groups agreed with manager views regarding the ends of the direct and indirect ends of the management continuum but became less congruous in its middle. Additional identification and clarification of visitor perceptions of management tactics is needed.

Recreation management research focuses on three areas (1) management action acceptability, (2) use and effectiveness of information, and (3) development and discussion of use limit policies (Brown et al., 1987). When research does consider visitor input on management, it is frequently somewhat limited in scope and format. Rather than allowing visitors to spontaneously suggest or respond to management ideas, research typically requires visitors to respond to fixed response questions, thus limiting the type and amount of input. For example, Hammitt and McDonald (1983) posited four options to river visitors concerning its management: implementing controls to stop or prevent damage, and no control now or in the future. Although this represents a step toward visitor input, its ambiguous nature is challenging. While fixed response formats are appealing in terms of their brevity, ability to answer specific questions and relatively minor expense, direct and open inquiry concerning management broadens the knowledge base and option pool for managers. Possibly, visitor input may provide additional or innovative methods to manage, or deliver management approaches. In theory, user involvement is recognized and recommended for better management and conflict minimization (Cole et al., 1997; Moore & Barthlow, 1997). However, utilization of spontaneous and open communication is negligible in the published literature.

In addition to being research driven, management preference inquiries also focus primarily on segmenting visitors by activity type. Segmenting visitors by activity type is appealing due to its simplicity and intuitive appeal. However, the assumption that visitors vary dramatically by activity superficially separates visitors and neglects those who engage in multiple activities (Watson et al., 1997). Further, the segmentation diminishes the

relative importance of each activity to the individual and which may be more important or contribute to their identity. Recent inquiries suggest less than optimal explanatory power when only activity type is utilized and considering participation in multiple activities or by strength of activity identity necessary (Watson et al., 1997; Watson, Zaglauer & Stewart, 1995). Segmenting visitors by their leisure identity salience (LIS) is one alternative to simple activity separation. Leisure identity salience moves beyond simple activity description and incorporates the participants commitment, reflecting experience and meaning.

In leisure research, Shamir (1988; 1992) has focused on identity salience. Shamir (1988) defines leisure identity as an investment comprised of both external and internal commitment. The internal commitment refers to a motivational state, allows expression of attainment of goals, and positive evaluation while the external or social commitment refers to the degree to which an individual's relationship to particular others depend on being a given kind of person. Leisure identity salience, defined as "the importance of a leisure identity for self definition" (Shamir, 1992, p. 304), is similar to the commitment and ego-involvement constructs used in leisure and tourism research (Selin & Howard, 1988; Havitz & Dimanche 1997). Identity salience reflects the level of social commitment to the identity role; the greater the social commitment, the higher the identity in the salience hierarchy (Shamir, 1992). The higher the salience of an identity within one's self-concept, the greater the motivational significance and the greater the probability that a person will perceive situations as opportunities to perform in terms of that identity.

The only published investigation of leisure identity salience (LIS) is by Shamir (1988; 1992). Qualitative research indicated that LIS is valued because it expresses and affirms an individual's capabilities, endows social recognition, and affirms central values (Shamir, 1988). Subsequent quantitative research (Shamir, 1992) explored the utility of a seven-item scale, based on Hoelter's (1983) role identity work, to ascertain LIS and its relationship to commitment and motivation. The scale items focus on a main activity and its ability to describe the person, affirm their values, realize aspirations and so forth. The Cronbach alpha of the LIS was above 0.80 and, therefore acceptable. Results with a convenience sample of students indicated LIS positively correlated with perceived social commitment as well as effort and skill invested in the activity (Shamir, 1992). Given LIS goes beyond simple activity segmentation in a few Likert items, it may lead to better explanations for management preferences than activity alone. Further, since it is seven items, the scale poses minimal additional effort for respondents in quantitative surveys. This study incorporated LIS and assessed its ability to differentiate users. First, this study sought open visitor input related to multiple use area management via qualitative interviews. Second, this study assessed potential differences in management preferences by scores on a LIS scale.

Methods

In-depth interviews were conducted with visitors to a multiple use trail in a large metropolitan area in the American southwest. The larger project utilized an on-site survey to ascertain leisure identity salience. The survey was developed after Shamir (1992) and included sections on outdoor recreation activities, details on the activity most frequently engaged in such as activity history, activity style and salience, as well as demographic data. Activity salience was measured on 7 point bipolar scales on items such as 'this activity affirms my values' and 'this activity does not affirm my values'; higher scores indicate higher identity salience. The survey was pretested on 100 college students as well as 25 recreationists at the study site. As a result of the pretest, one question was reworded to be more specific and the ethnic group categories were simplified.

Survey respondents who indicated they were willing to participate in future research efforts were invited by telephone to participate in an in-depth structured interview, with probes, focused on their recreation activity and its management. An extreme type of sampling was utilized in that potential interview respondents were stratified by LIS. Because we were interested in potentially different management preferences by LIS, extreme type sampling seemed appropriate. Patton (1990) suggests that extreme case respondents who exemplify the characteristics of interest are appropriate. Therefore, a median split of LIS, in which respondents with the median were removed from the sample, was performed. To avoid gender bias, an equal number of males and females was sought. Subsequently, five high LIS males and females were systematically selected, with a random start, as were five low LIS males and females, resulting in 20 interviewees. The typical number of interviewees in qualitative research is around fifteen (Kvale, 1996).

The interview was comprised of three main areas: activity history, activity identification, and management preferences. Activity history included duration and frequency of participation, equipment ownership and social affiliations (e.g. who do you engage in this activity with?). Activity identification consisted of leisure identity salience in self descriptions (e.g. how would you describe yourself?), as well as familiarity and similarity with others in the activity.

Management preferences were assessed two ways: (1) by directly asking respondents to provide suggestions for managing multiple use, and (2) by asking respondents to evaluate the viability of five common management tactics: education, separation, regulation, use prevention and joint planning. These five were chosen to represent a diversity of direct and indirect tactics while not delving into too many subcategories in accordance with time constraints. Education was presented as a spectrum of communication techniques ranging from brochures to interpersonal contact. Separation represented spatial distances between different user groups within a same resource area while use prevention was permanent prevention from area

usage. Regulation involved rules and their enforcement. Joint planning was presented as an opportunity where a variety of groups and publics joined with the land managers to plan for an area. Interviewees responded to management preferences at both site specific and general levels.

A \$20 payment was offered in exchange for participation. A practice interview was conducted with a recreationist from the study site prior to interview inception. As a result of the practice interview, two questions were reworded for clarity. Interviews were conducted during the summer of 1997; typically no more than two interviews occurred in one day. All but three interviews were conducted in a private conference room. The three other interviews occurred at a central, quiet location due to scheduling or travel challenges. Interviews ranged from 20 minutes to nearly two hours. Ten percent of the sample (one high LIS and one low LIS who were particularly insightful in their descriptions) participated in a second discussion to validate and assist with theme interpretation (Henderson, Bedini & Hecht, 1994). The interviews were taped, transcribed in full and checked for accuracy by the interviewer and a research assistant. Participant names were changed to preserve anonymity.

Analysis

A combination of content and emergent theme analysis was utilized to derive relevant data categories and decipher relationships among the concepts. An initial list of codes, developed by dual coders, was based on relevant literature and initial data readings. Both open and axial coding were used, as directed by Corbin and Strauss (1990). Therefore, these classes of phenomena were observed and then, relationships among categories examined.

Several themes emerged through the data analysis process, in addition to direct responses about management preferences. Member checks with 10 percent of the sample, dual coding and field notes contributed to theme. Further, field notes immediately after interviews and throughout the interviewing process assisted with data analysis and interpretation by providing insight into the interviews and relationships among the concepts of interest.

Results and Discussion

The twenty respondents ranged in age from 19 to 52 years. Although the majority of respondents were Anglo-Saxon, one-fourth of the sample was ethnically diverse and included an Asian female and male, African-American female, Hispanic male and Middle Eastern male. Eight of the respondents identified hiking as their main activity, five identified mountain biking and five trail running. A camper and a triathlete were also represented among the participants. Interviewees had participated in their main activity from one to 29 years and had also engaged in two to 21 additional recreation activities in the past twelve months (Table 1).

Table 1: Descriptive Analysis of 1997 Interviewees on Leisure Identity Salience¹ and Management Preferences

<i>Pseudonym</i>	<i>Main activity</i>	<i>Years in activity</i>	<i>Age</i>	<i>Other activities engaged in last 12 months</i>
Kelly	Mountain biking	4	32	Hiking, photography, picnicking, trail running, relaxing, rafting, walking, auto touring
Walter	Mountain biking	7	26	Backpacking, road cycling, cross-country skiing (spoke of surfing and hiking)
Teddy	Camping	29	29	Hiking, mountain biking, fishing, relaxing outdoors, target shooting
Andy	Biking	7	25	Backpacking, hiking, photography, rock climbing, downhill skiing, rollerblading
Star	Walking/running	3	26	Hiking, camping, picnicking, mountain biking, relaxing outdoors, water skiing, swimming, downhill skiing, roller blading
Annie	Hiking	3	26	Backpacking, camping, photography, mountain biking, relaxing outdoors, swimming, walking, downhill skiing
Sam	Hiking	4	20	Camping, photography, mountain biking, sailing, walking, roller blading
Gerry	Triathlon	15	25	Hiking, camping, horseback riding, picnicking, mountain biking, road cycling, trail running, relaxing outdoors, power boating, fishing, water skiing, swimming, rock climbing, walking, hunting, auto touring, roller blading
Marti	Trail running	1	27	Hiking, relaxing outdoors, fishing, gardening
Dee	Trail running	6	28	Hiking, picnicking, relaxing outdoors, walking
Jon	Hiking	6	52	Walking, auto-touring
Louie	Mountain biking	4	40	Hiking, camping, photography, picnicking, road cycling, relaxing outdoors, sailing, swimming, walking

Table 1 cont.

Patty	Hiking	6	25	Camping, photography, relaxing outdoors, rock climbing, walking, roller blading
Tina	Hiking	1	19	Camping, photography, horseback riding, picnicking, trail running/jogging, relaxing outdoors, water skiing, swimming, rock climbing, walking, hunting
Connor	Hiking	1	30	Camping, photography, horseback riding, picnicking, relaxing outdoors, power boating, swimming, walking, auto touring, motorcycle riding
Leigh	Walking-hiking	10	37	Hiking, mountain biking, trail running, relaxing outdoors
Kara	Mountain biking	15+	35	Hiking, camping, relaxing outdoors, walking
Jenna	Hiking	10	23	Backpacking, camping, horseback riding, picnicking, mountain biking, trail running, relaxing outdoors, fishing, canoeing, water skiing, swimming, rafting, rock climbing/scrambling, walking, downhill skiing, jet skiing, hunting, archery, target shooting, roller blading
Ray	Trail run/jogging	10	26	Hiking, downhill skiing
Bobby	Trail run/jogging	10	26	Backpacking, hiking, picnicking, road cycling, relaxing outdoors, swimming, walking, cross-country skiing
	Range	1-29	19-52	

¹Leisure identity scale consists of items measured on a 7-point Likert scale.

Open-Ended Inquiry About Management Options for Multiple Users

The first management inquiry identified respondents' ideas on how recreation managers might respond to multiple uses. A direct, open-ended question was posed to eliminate any researcher influence on idea genera-

tion: "How can recreation managers manage multiple users both here and in general?" In general, data indicated that education and user separation were the tactics most frequently suggested (Table 2). When differences according to LIS were examined, high LIS respondents more frequently mentioned education while low LIS respondents emphasized separation. Also, high LIS suggested site modification more than low LIS. Regulation was mentioned equally by respondents, joint planning only once and no respondent mentioned preventing use as a multiple use management option.

Table 2: Self-Generated Multiple Use management preferences generated by Interview Respondents Overall and by Leisure Identity Salience (LIS), 1997.

	Education	Separation	Site hardening	Regulation	Joint planning	Use prevention
Number of respondents suggesting	10	9	6	4	1	0
Number of high LIS suggestions	7	2	4	2	1	0
Number of low LIS suggestions	3	7	2	2	0	0

Multiple Use Area Management Preferences

In addition to open ended questions concerning multiple use management preferences, respondents were asked to evaluate five commonly employed tactics: education, regulation, separation, permanent prevention from use, and joint planning. Overall, respondents appeared to favor education, separation and joint planning as indicated by their reactions to these tactics. Education and joint planning appealed to respondents due to the opportunity for communication, while separation was seen as a means to increase the potential for recreation freedom and quality experiences.

In accordance with research and management ideas (Lucas, 1982; Manning, 1985), the indirect tactic of education was positively received due to the communication opportunity it affords. Education was viewed as a winning situation for everyone so "we can all get along" (Star, 522) within the same space. Education was also indicated as an important mechanism to communicate regarding appropriate behavior: "Yeah, actually, I think

that's pretty important...I've seen a lot of signs before...that's important. I mean, if you're going to share the same area, you should know the rules" (Sam, 685). Respondents suggested education techniques such as utilizing the Internet, diverse media outlets and environmental education in schools. For instance, "Education through the Internet for people who use it a lot, mountain bike shops can recommend that you check out this website for information on trails..." (Andy, 419) or "Maybe doing it (education) in some sort of fitness center.. and kind of give them a little, you know, this is how the etiquette works..." (Star, 482). Respondents noted a limitation of education was that frequently, visitors do not attend to the educational messages. For instance, respondents recognized that not all people read signs: "a lot of people don't read the signs and they just go on the trail" (Andy, 380). This concern reflect some researchers concerns that indirect tactics are not effective for some segments of park visitors and behaviors (McAvoy & Dustin, 1983).

In response to joint planning, respondents heralded it for its communication value and because it prevents "one will dominating the whole situation. Kind of a matter of coming together for compromise" suggested Ray (814) and an opportunity to "solve problems up front as opposed to trying to solve them after they already exist, or get people bent out of shape, because they get bent out of shape too quickly these days about things, I think" (Kara, 692). In response to joint planning, Leigh commented:

That's a good idea, too, because you would have input from both groups or all five groups or whatever the case may be, and everyone's going to have their opinions because they're engaged in different activities. So I think that would be an excellent idea. (581)

Similarly, another visitor expressed:

Oh that's always a good idea. I think always asking people for communication for ideas... I guess if you ask them, and they give you an answer, they're bound to be happier than if you tell them what's going to happen, that's great. You can tell me all you want, but who are you? If you ask them and they come up with the answer, then they already buy in. (Louie, 191)

Nonetheless, joint planning discussions included cautionary tones due to a lack of even visitor involvement. A selective invitation list was a concern voiced by four or 20 percent of respondents. "It seems like they just stay in their own advertisement, you know, areas, and stuff" as opposed to "just getting out in the community and exposing it to the people" (Walter, 105) and Donna (1029) "My concerns would be how are you drawing in the people, what groups are they coming from...?" Advertising meetings in nontraditional media outlets and a variety of publications and places was suggested to attract a diversity of publics.

Separating different activity groups was viewed positively primarily because it allowed freedom for each recreation activity. Separate trails were mentioned, for example, since “it would give them (bikers) more freedom to do what they want to do without having to stop, and by the same token, it would do the same for walkers” (Leigh, 641). Similarly, “As a hiker I wouldn’t have to worry about bikes or people coming up behind me or coming around a corner” (Annie, 584). These thoughts concur with the idea that direct management can sometimes lead to more freedom (Dustin & McAvoy, 1984) and are not as obtrusive as perhaps originally conceptualized (Lime, 1976; Watson et al., 1997). Further, because terrain sometimes sets limits on activities anyway, the separation seemed almost natural at some sites. However, a caveat of separation as a management option was that it should be considered primarily for new areas. Changes to existing areas were noted as quite difficult to implement by three respondents due to the uses already occurring. Further, low LIS respondents acknowledged scarce resources and their limiting effect on management options such as multiple separate trails. For instance, regarding designated trails “that’s awful hard. Everyone wants... How many slices can you slice a mountain up?” (Conna, 505) or “I think for most people the first choice is obviously they want their own personal space, they want it dedicated to their activity. Great to have, but it wouldn’t happen because it’s a democracy” (Ray, 812).

More direct approaches, such as regulation and prevention from use, received more negative reviews from respondents, thereby supporting researchers’ contentions regarding its undesirability (Hendee, Clark & Catton, 1977; Lucas, 1982). Just as freedom maintenance was an incentive for separating users, its loss was the red flag for regulation.

Regulation seemed “really a harsh word” (Leigh, 629) and its impression was generally negative as illustrated by this respondent who suggested “I’m not going out there again if this guy is like barking at me, because I can’t do this or that” (Star, 496). Although respondents did not mention or express direct negative encounters with management personnel, their impression was quite negative of the encounters related to regulation. Thus, although managers may be, in their view, engaging in ‘visitor education’ on the trails when interacting with visitors, the public may view these encounters quite differently.

Similarly, use prevention seemed a negative way to respond to multiple users due to its effect on visitors with respect to lack of freedom. One respondent suggested, “People are out there to enjoy themselves, or everyone should be able to enjoy the park.” Respondents indicated prevention was the least preferred technique as compared to others as “that seems to offend people the most, when you tell them they can’t do something” (Ray, 781). Kara concurred: “I think [prevention] will lead to situations and problems” (406).

Two management preference themes emerged from the interviews. First, all respondents indicated the importance of resource access. Second, all respondents suggested a preference for minimal regulation. Throughout

the multiple use management alternative discussion, respondents expressed concern for keeping areas, at least some portion of an area, accessible to all users. Both the democratic principles of the United States and public land importance emerged in this access theme. When questioned about use prevention, one interviewee responded

No, I think everybody should have access to anything, that's just nature. There shouldn't be any reason why anybody if they wanted to hike or bike, whether it's a National Park or not to use it, unless it's someone's private property (Annie, 602).

Similarly, another expressed access as a key component of outdoor recreation, "I think everyone should be able to do it, enjoy the outdoors (because) this is America" (Teddy, 165). As might be expected from the very concept of leisure as 'freedom to be' (Kelly, 1987), visitors expressed a preference for minimal regulation in multiple use areas. These results concur with the suggestion that optimal enjoyment relies on recreation opportunities that encourage self-sufficiency and freedom from agency control (Dustin, McAvoy & Beck, 1986). Also, this finding supports researcher suppositions that direct tactics such as regulations are the least preferred alternative (Lucas, 1982). Excessive regulation was not preferred,

Because then it's too structured...some people go there to get away from everything and...I mean, if you have like a police-like presence it's more like a city-type presence there, extending that kind of mentality, where it's structured and controlled and people tend to want to go to a park to get away from, you know, the structure and control where they're at. Just to, you know, see nature and whatever, does tend to do what it does freely without ah, too much structure. (Ray, 754)

People are out recreating, they don't like to be legislated too much. (Laugh) They have enough legislation in their lives already. (Laugh) That's why they recreate to get away from it. A few ground rules are fine. I think that too many would be just, I think, they would probably balk. (Marti, 926).

Implications and Conclusions

Direct visitor inquiry about multiple use areas indicates general support of the supposition that indirect management techniques are preferred over direct, at least in this initial inquiry (Hendee et al., 1977; Kulla, 1998; Lucas, 1982). Management preferences appeared to differ somewhat by LIS, indicating both its possible utility for visitor segmentation and potential insight into management preferences. Four research conclusions are presented.

First, as indicated by spontaneous alternatives evoked and positive comments, respondents appeared more familiar with and preferred management implement education when contending with multiple users. The

fact that this option maintains the free characteristic of the recreation experience appeared an important element to respondents. These results are consistent with management literature that suggests education efforts are preferred alternatives as they impinge less on the visitor experience (Cole et al., 1997; Lime, 1976; Lucas, 1982). Further, since these are some of the most commonly employed management mechanisms (Chavez, 1997; Washburne & Cole, 1983) it makes sense they would be salient and visitors would articulate them. Thus, as resources allow, effective educational techniques that catch and maintain visitor attention should be implemented. In newly developing recreation areas, user separation could be considered as well.

Although preferred by both managers and visitors, education efforts challenge managers due to the critical importance of a message that is both attended to and comprehended. Signs, brochures and other educational messages are useful only if they are attended to. Although resource intensive, personal contact may be a preferred alternative; wilderness managers indicate that it is their most effective management tool (Washburne & Cole, 1983). Respondents concurred that the presence of management personnel and direct contact was probably quite effective. However, the potential of this technique depends on the type of behavior the manager is attempting to influence (Roggenbuck, 1992). For example, behaviors due to a lack of awareness, such as littering, are most likely to benefit from persuasive educational campaigns compared to intentional actions, such as vandalism. One must also recognize the potential for some visitors to not be effected by any management tactics (McAvoy & Dustin, 1983).

Second, the infrequent suggestion of preference for minimal regulation indicates visitor hesitancy toward it and supports management research suggestions that this direct visitor management tactic is less desirable to visitors (Hendee, et al., 1977; Lucas, 1982). Thus, as indicated by management research, the more indirect educational efforts appear warranted and more than "personal opinion" (Cole, 1995). In addition, the essential element of freedom respondents articulated during their discussion of education, use prevention and even separation support its importance in defining a quality recreation experience. The implicit message is to implement regulation as a last resort and perhaps, in gradual stages. For instance, rather than immediate ticketing, issuing a warning first.

Third, infrequent mention but positive response to joint planning indicates a lack of visitor awareness of this technique. This lack of awareness is not surprising due to the small number of people typically included in public involvement meetings. However, given the trend toward public involvement and 'bridge building' or building relationships with user groups (Chavez, 1997), increased public involvement and marketing is suggested. Conceptually education and joint planning were championed by visitors, but with warnings to be as effective and inclusive as possible. Keeping a visitor involved is important to maintaining preferred recreation opportunities and also continued support and constituency for an area.

Public relation techniques are important to recreation management and a more proactive approach is suggested (Chavez, 1997). Outdoor recreation managers are "typically not formally exposed to recent innovations in services marketing as applied to the management of wildland outdoor recreation" (Capella & Miles, 1993, p. 59). However, customer service and marketing is a key in the increasingly competitive market for consumers and constituents, and therefore a priority for public managers to consider.

Fourth, differences in spontaneous management preferences and direct question responses among high and low LIS visitors indicate LIS offers a promising area for future research and visitor segmentation. A primary difference among respondents was that high LIS preferred educational techniques while low LIS preferred separation. One explanation for this difference may be in perceived group membership. Social-psychological literature suggests that members who perceive a group as permeable will enact individual oriented strategies for dealing with discrimination or potential conflict (Lalonde & Silverman, 1994). Conversely, if one perceives a group as impermeable, group-oriented strategies will be implemented. Plausibly low LIS respondents, typically involved in fewer activities and self-recognized as less involved and elite in their own activities, may perceive other activity type groups as higher status and less permeable and thus, incline toward group oriented activities. In fact, some theorists suggest (Jackson, Sullivan, Harnish, & Hodge, 1996; Tajifel & Turner, 1979) that the presence of impermeable boundaries is a prerequisite for collective behaviors. Thus the inclination for group separation by low LIS is readily understood, as is the individually oriented education preference of high LIS. However, as this is an initial exploration of these group related orientations, additional research is necessary. For example, group identity might be explored to ascertain if one particular group is more identified than another and, if so, to what extent. Another difference was that high LIS suggested site modification more frequently than low LIS respondents. One obvious explanation for this result is that high LIS have more exposure to and experience with various management techniques, therefore they are able to draw on these salient and familiar mechanisms more than low LIS.

Using LIS for segmenting visitors in quantitative research is appealing as it represents a relatively short (7 items) but meaningful measure. The items encompass both social and personal commitment and therefore go beyond simple activity segmentation. Multiple segmentation schemes are being introduced, typically focused on situational factors (Donnelly, Vaske, & King, 1996; Mowen, Graefe, Williams, 1998). However, a more in-depth person approach, such as the LIS is definitely one to consider.

Limitations of this research focus primarily on sample issues. Although this research extends LIS utilization from a student to an actually recreating population, the sample was limited to outdoor recreationists. Further, while 20 interviews is above the average number in qualitative research (Kvale, 1996), even more interviews would add to the validity of the research. Also, extreme sampling was utilized to ascertain the ability of LIS

to differentiate users; however, future research may benefit from more random sampling. Future research might include both outdoor and indoor recreationists in its efforts to further understand visitor management preferences. Also, if additional qualitative research is explored, scenarios or role playing might illicit additional interesting information related to preferences.

Some researchers suggest that “managers need to anticipate the effects of management actions on legitimate users of the areas” (Watson et al., 1997, p. 35), but beyond anticipation, inclusion of actual user responses is desirable. By their very nature, multiple use areas have increased potential for visitor conflict. In fact, user conflict is one of the most important issues faced by managers (Chavez, 1997; Jakes, Gregersen, Lundgren, & Bengston, 1990). When deciding among management options, managers need to remember that “management techniques should be selected on the basis of concern for both visitor freedoms and effective solutions to impact problems” (Cole, 1995, p. 9). This research represents one step toward examining visitor management preferences. Using LIS to examine differences in management preferences goes beyond simple activity segmentation and parsimoniously incorporates implicit meaning measures. Additional research can directly examine obtrusiveness as well as barriers to visitor involvement both from visitor and managerial perspectives.

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