

Smokies Study Visitor Communication

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Why should a national park manager be vitally interested in communications with visitors? Because it is the primary means of managing visitor behavior short of implementing use restrictions or altering the infrastructure of facilities available.

Effective communication between manager and visitor enhances every phase of park operations, from maintenance and law enforcement to interpretation and resources management. It is important for park management to develop an overall communications strategy: understand the behavior and attitude of target audiences and decide how various media can best contribute to the efficient conveyance of a clear set of priority messages. For the past five years, the social science research program at Great Smoky Mountains NP (GRSM) has focused on various aspects of communications in order to improve the people aspects of park management.

A three-year study begun in 1982, conducted by John Peine, Craig Walker, and Paul Mott, focused on the effectiveness of a variety of media commonly used to communicate with park visitors. As a first step, park managers and personnel directly in contact with the public were interviewed concerning their opinions on the priority of messages and how effectively they are conveyed to visitors. Later, visitors were asked to define the kinds of information most important to them during their park visit. The managers and visitors had markedly different message priorities; i.e., rules and regulations versus orientation. Communications is defined by Webster as "a process by which means are exchanged between individuals." The sender must convey messages in terms that are of interest to the receiver. This fundamental principle is all too often ignored.

The park newspaper is the primary vehicle available to managers to convey detailed information to visitors. No other medium generated at the park level has as great a potential to affect behavior patterns. It is the voice of the superintendent in the park. Only 39 percent of the visitors queried in the 1983 general media questionnaire were aware that a newspaper exists. Only 11 percent of them used it. Even 40 percent of those who stopped at a visitor center where the paper is distributed were unaware of its existence. Only three percent of the visitors surveyed attended an interpretive program after reading about it in the paper, but 48 percent of those who read the paper and knew it contained an interpretive program attended one based on reading about it. Similarly, 42 percent of those who read the front page article did something based on what they had read. These findings suggest that the paper, if it is read, can affect visitor behavior. It was concluded that the newspaper needed better marketing and improved design.

The park radio system has the potential to reach a greater percentage of park visitors than any other medium available to park management. The radio provides a means to penetrate the sanctity of the visitor's private environment where most of the park visit is spent. The place inside the private vehicle. Although 75 percent of the respondents indicated they were aware of the park radio stations, only 26 percent of them had listened to it. Several groups were more likely to be aware of the radio stations than their counterparts: those who stopped at visitor centers, stayed longer in the park, and were campers. Stations at the two main entry points to the park (Sugarlands and

Oconaluftee) received the most use. Of those questioned, 72 percent were unaware there were different radio messages throughout the park. The visitors who wanted most to hear interpretive messages from the radio accounted for 61 percent of those questioned. Only six percent of the total surveyed decided to do something based on a radio message heard, but this represented 23 percent of those who had listened to a radio message. This indicates that radio can affect behavior once it has gained visitor attention.

The radio message was changed at one station in mid-summer to see if the application of principles of radio advertising would increase retention of the message and therefore have a greater influence on behavior. The retention of the message was significantly greater, but the test for the effect on behavior was inconclusive. It was suggested that the radio system needs better marketing, with the messages shortened, simplified, and made more interesting.

The often neglected bulletin board can be a powerful communications tool. More visitors are likely to look at bulletin boards than to stop at a visitor center or listen to a radio message. Locations are more widely distributed throughout the park. Bulletin boards are usable 24 hours a day; visitors can communicate with one another via a message board.

Two-thirds of the visitors were aware that the park had bulletin boards at various places. That represented more awareness than for the newspaper (39 percent) but less than for the radio (75 percent). More people looked at the bulletin board (54 percent) than listened to the radio (26 percent) or read the newspaper (11 percent).

Of the respondents who looked at park bulletin boards, 22 percent indicated that they had used some of the information. This proportion of use compares to 47 percent for the newspaper and 23 percent for the users of the radio stations. The most frequently mentioned posted items read were the schedule of naturalist programs (27 percent), road maps and directions (14 percent), and bear information (14 percent). Observation and interviews with users of the boards clearly demonstrated that just posting something on the board has little relationship to whether or not it has been effectively communicated.

Design effects were tested by changing the board layout in mid-summer. It was concluded that the communications potential of bulletin boards would be improved via better design techniques.

For the last four summers, the touch screen computer system purchased for the NPS booth at the 1982 Knoxville World's Fair has been set up at Sugarlands Visitor Center to test for a variety of potential applications. Programs were developed and evaluated for interactive trip planning. Collective visitor group interests, time frame, and degree of rigorous activity desired were used as parameters to select suggested itineraries for auto touring and hiking. Mail-back responses evaluating the system for auto touring indicated that 91 percent of people using the touch screen program for auto touring had followed the suggested itinerary and, of those using it, 85 percent indicated that the itinerary made the trip more fulfilling.

Programs to solicit public opinion also were tested. An assessment is presently being made as to how closely the computer users represent a cross-section of visitor types and if response weighting can be used to better fit the computer collected responses to the population norm. One series of questions tested related to marketing considerations for visitor services.

The response to the questions suggested that a large unmet market existed for visitor services. Results indicated that a large percentage (43 percent) of those potentially interested were unaware that programs existed. Ranger-led walks were the least preferred interpretive service among those listed.

A touch screen computer program was devised in 1984 to evaluate visitor use of the exhibit installed at Sugarlands Visitor Center. Touch screen responses to questions concerning facts about specific exhibits correlated with observed use of the exhibits by the public. A serious signage flaw was discovered concerning the lack of public comprehension of a floor plan design to cluster exhibits by ecotype.

A self-contained interpretive program game was tested which targeted children. Interest choices led to a "visual" treasure hunt on a nearby nature trail, which encouraged family involvement and resulted in a recognition award.

A study of visitor behavior by Craig Walker and John Peine was conducted at three different kinds of hazardous areas where similar warning signage was used. Preliminary results indicate that very different group behavior occurred in confronting the three hazards, due in part to the nature of the hazard in conjunction with group dynamics.

Family groups were constantly putting small children on precarious ledges of a watertall for family pictures at one site while another site was frequented primarily by local teenagers swimming and jumping off a 15 foot rock face. It was consistently observed that alcoholic beverages were hidden when ranger patrols appeared. The third site featured a steep rock face that led to a panoramic view. This hazard is obvious and treated cautiously by most hikers. In all three sites, the warning signage is very similar while the group dynamics and nature of the true hazards are quite diverse.

In 1983 John Bunde and Kevin Curran of Southern Illinois University conducted a comprehensive study of backcountry visitors at GRSM. One of the primary goals of their study was to assess how effectively the messages that were conveyed to them during the permit registration process were received by the hikers. The message given the most emphasis by park management concerned human/bear interactions. Study results indicated that bear encounters were quite common, with 39 percent of the hikers having an encounter. Only one in four hikers knew proper procedures to follow during a bear encounter, but another 65 percent had some knowledge. Messages concerning proper camping procedures to discourage bears tampering with food were similarly tenuously received by the park visitors.

In 1985 and 1986, a project was funded by the Man and Biosphere Program (MAB) to develop a model for incorporating community involvement in MAB programs. Gary Mullins of Ohio State University and Gabriel Cherem of Eastern Michigan University assisted John Peine in devising such a strategy. Steps of the process provide a straightforward means to identify key messages, target audiences, appropriate media application, and evaluative tools. The first test of the model will be the development of a community awareness program on air pollution related issues. One completed component is a series of school curriculum modules for grades 1-8 which have been developed on various aspects of MAB programs in the Great Smoky Mountains and include some key air pollution related topics.