

Comparison of the Use of Communication Channels between Amateur and Serious Hikers in Fulfilling Information Needs

Yu-Lan Yuan & Chi-Chuan Lue

National Dong Hwa University, Taiwan

yoyo@mail.ndhu.edu.tw

cclue@mail.ndhu.edu.tw

Keywords: Information searching behavior, external information source, information needs, hikers, recreational experience, visitor management, forestry areas.

Introduction

Hiking/backpacking has been among the top five favorite leisure pursuits in Taiwan for the past 20 years. In responding to the increased number of visitors, provision of information has been used as a management tool in managing recreational use of forestry areas to guide and control users' activities and behaviors. Information is provided to insure a joyful experience to the public while also is needed to persuade users to assume low-impact behaviors to minimize the damage of recreational use.

Hiking in wilderness circumscribes a unique context, in that trail conditions, weather, and wildlife are constantly changing. Information, thus, is crucial to hikers/backpackers. Unlike tourist destinations, information is well-provided, information of wilderness areas is often insufficient, hard to obtain, or even no information could be found. Lack of information, in extreme, might lead to dangerous and life-threatening situations. How to make information available is a complex task. Accordingly, to deepen the understanding of information needs, seeking, and uses of communication channels will enable forestry managers to distribute information effectively.

In the long line of information searching behavior research, numerous evidences were found indicating that tourists search information before they take trips (Fesenmaier 1994, Fodness & Murray 1999). External information was needed to solve problems (Lovelock & Weinberg 1984) and overcome constraints (Anderson 1987, Coble & Selin 2003) in response to information needs. A variety

of sources of information was selectively used with a variety of search strategies in planning a recreational trip (Fodness & Murray 1999), the usage of information sources also varied by the experience (Krumpe & Brown 1982).

Compared to information searching studies of other recreational and tourism areas, research on information use and network of hikers/backpackers has been scarce. This study fills the gap. The objective of this study was, therefore, to understand the communication channels used by amateur and serious hikers to acquire information and knowledge in fulfilling hiking-related information needs.

Methods

Study Setting

This study was conducted at the Da Wu Mountain Hiking Trails (DMHT) in cooperation with the Republic of China Forest Bureau. DMHT is located adjacent to the Da Wu Natural Reservation Area in southern Taiwan and is one of the most popular hiking trails in southern Taiwan.

Sampling

The rainy season and typhoon have great influence on the number of visitors and the DMHT's management. Heavy rain often leads to the closure of DMHT. The time frame, thus, for on-site sampling was June 19, 2004 to March 31, 2005. Hikers were approached as they were exiting or entering. Interviewers identified themselves as members of a research team who, in cooperation with the Forest Bureau, were conducting a user study relat-

ed to the hiking trail system. They were asked to leave contact information (i.e. names, addresses, and cell phone numbers) and invited to participate the study. Data was collected on 42 different days, including 11 days on raining season (26.2%), and 31 days on dry season (73.8%). Of these, 16 days were on weekend (38.1%) and 26 days on weekday (61.9%). Sampling time started from 7:30 in the morning and ended at 15:00 in the afternoon. In total 1728 hikers were recorded, 39 of them refused to give contact information (2.3%), 164 of them were repeat visitors (9.5%), 117 of them were rangers and forestry workers (6.8%). Thus, 1408 contact information were collected and double checked for the duplicates, and then produced a list of 1354 contact information that constituted the sampling frame for data collection.

The contact information was collected over nine months; for instance, questionnaires were mailed out at three periods of time to avoid the willingness of participating this study dying down over time. The first mail-out was from Sep. 1 to Oct. 30, 2003. The second mail-out was from Nov. 1, 2004 to Jan, 15, 2005. The third mail-out time was from Jan 16, 2005 to March 31, 2005. 737 surveys were mailed out. Of these, 557 surveys were returned (76.6%) and, of these, 549 were usable for the purposes of this study (98.6%).

Data Collection

The survey instrument was a self-administered questionnaire consisting of three sections, two of which were referenced in this study. The second section focused on the use of communication channels. To assess the usefulness of communication channels in response to a specific type of information needs eight categories of communication channels were included: organized groups/clubs, sports shops/specialized stores, friends/family members, mountaineer/hiker magazines, outdoor books, travel magazines, and Internet. Respondents were asked to identify the best or the most useful communication channel in regard to each type of information need. These communication channels are essential when obtaining hiking/backpacking related information, such as choosing hiking routes, gaining new knowledge about equipment, weather condition.

The third section of the questionnaire included questions on individuals' sociodemographic characteristics including, gender, age, education, hiking style, and memberships in hiking/backpacking organized groups/clubs. The level of expertise was assessed through the following questions: "Days spent hiking for the past one year," "Years in pursuing hiking," "Role taken during a hike", and "The perceived importance of hiking in their daily life".

Data Analysis

The Statistical Package for the Social Sciences (SPSS Inc. 2004) was used to analyze the data obtained from they survey. First, descriptive statistics were computed to profile respondents. Then, Chi-square statistics were employed, on amateur and serious hikers to examine differences in the use of communication channels.

Result and Discussion

Table 1 provides basic descriptive information about the respondents. Among the respondents, there were 76.1 per cent living in southern regions. A big proportion of respondents (32.3 per cent) spend 20 to 50 days hiking in a year, followed by more than 50 days (19.4). The majority of respondents (60 per cent) took a role as a follower during hiking. About 49 per cent pursued hiking between 4 to 10 years; and 22.7 per cent pursued hiking for more than 11 years. More than half of the respondents did not have any membership (57.4 percent). 15.1 per cent with membership in local organized groups/clubs, 15.1 per cent with membership in company and college outing groups, and another 12.4 percent with membership in national organized groups/clubs.

Table 2 lists the usage of eight communication channels. Information obtained from friends/relatives was the primary information channel for all respondents for the most types of the information needs, except on "acquaintance of companions" and "weather information". The second most useful communication channel was organized groups/clubs, especially in finding information on "general hiking information", "seeking companion during planning a hiking trip", and "acquaintance of companion", as well as using it as "the primary

source of hiking knowledge and skill". Over 45 percent of respondents indicated that the Internet was the best communication channel for weather information. It was also identified as the second most useful communication channel for obtaining information on "hiking route related information" and "general hiking information". Surprisingly, many respondents identified that sports shops were the second most useful source for gaining knowledge and hand-on experience on hiking gear and gadgets. Table 2 also reveals that the best place to make acquaintances was during a hike.

Respondents who acted as hiking leaders and followers differed significantly on the use of communication channels in fulfilling their information needs, including general hiking information, opinion, hand-on experience, the newest hiking gear/gadgets, weather information, and hiking route-related information. Respondents acting as hiking leaders were more likely to use the Internet for obtaining general hiking information, weather information, and hiking route-related information than those acting as followers. They also were more

likely to use organized groups/clubs as their primary information source of hiking knowledge and skill, and as the major opinion source for planning hiking trip than others. In addition, they were more likely to gain hand-on experience and the newest information about hiking gear/gadgets in using sports shops/specialized stores. Overall, those who acted as followers were more inclined to rely on friends/relatives in fulfilling their various information needs, except weather information. Many respondents from both groups agreed that the best place of making the acquaintance of companions was during hiking.

Respondents living in southern and non-southern regions were different significantly in using communication channels to fulfill every aspect of their hiking-related information needs, as indicated on table 4. Generally, respondents living in southern regions were more likely to fulfill all their hiking-related information needs by asking friends/relatives than respondents lived in non-southern regions. Respondents living in non-southern regions were more likely to use organized groups/

Table 1: Respondents' Profile.

Variables	N	%	Variables	N	%
Gender			Hiking style		
Male	406	74.0	Solo	49	8.9
Female	143	26.0	With friends/Family members	326	59.5
Age			Participated hiking organized via organized groups/clubs	115	21.0
Under 18	6	1.2	Participated hiking via commercial travel organizers	58	10.6
19-30	85	17.3	Role taken during hiking		
31-45	156	31.8	Leader/Assistant	216	49.8
46-60	229	46.6	Follower	327	60.2
61 and Over	15	3.1	The Attendance of outdoor skill training camps/seminars		
Residence			No	313	57.5
Southern region	418	76.1	Yes	231	42.5
None southern region	131	23.9	Years in pursuing hiking activity (year)		
Hiking days in a year (days)			0-3	200	37.5
0-10	157	29.5	4-10	212	39.8
11-20	100	18.8	11-40	121	22.7
21-50	172	32.3	Memberships		
51 and Over	103	19.4	None	315	57.4
Education			Company or college outing groups	83	15.1
Senior high	73	13.4	Local organized groups/clubs	83	15.1
Junior high	143	26.3	National organized groups/clubs	68	12.4
Technique school	122	22.4			
College and beyond	206	37.9			

clubs to seek companions, meet companions, extend hiking experience, and share knowledge and skill than those lived in southern regions. Many of them also identified that this communication channel was used as the primary information source of hiking knowledge and skill. Over fifty percent of them even considered it as the most useful opinion source in planning hiking trip. In addition, they were more inclined to use sports shops/specialized stores to gain knowledge and hand-on experience on hiking gear and gadgets and the newest information on hiking gear/gadgets. Moreover, Internet was used for obtaining information on weather and hiking route by the many of respondents from both regions, however, respondents lived in none southern region were more likely to obtain these two types of information from the Internet.

Respondents with different levels of expertise also differed significantly in the use of communication channels. In general, respondents with a lower level of expertise were highly likely to ask friends/relatives for general hiking information, seeking companions, extending and sharing hiking experience and knowledge, gaining hands-on experience on hiking gear/gadgets, and route-related information. Over sixty-five percent of them also greatly depended on it as the primary information source of

hiking knowledge and skill, and indicated it was the most useful opinion source in planning a hiking trip (table 5). While respondents with higher levels of expertise were more likely to use organized groups/clubs for above mentioned information needs. Again, Internet was used for weather information. Interestingly, respondents with higher levels of expertise were less likely to use Internet in fulfilling their various information needs. Moreover, respondents with lower levels of expertise were more inclined to use sports shops/specialized stores to gain hands-on experience on hiking gear/gadgets.

Conclusion and Implications

This research discloses that there were significant differences in the utilization of communication channels between serious hikers and amateurs in fulfilling various types of information needs. Serious hikers were more likely to use organized groups/clubs as the primary communication channel of hiking knowledge and skill, and to perceive it as useful communication channel for planning a hiking trip. While amateurs largely relied on friends/relatives as the primary communication channel in fulfilling various types of information needs.

Table 2: The Use of Communication Channels in Fulfilling Information Needs.

Communication Channel	General		Personal		Specific Information				Social		
	A	B	C	D	E	F	G	H	I	J	K
Organized groups/Clubs	22.1	24.6	21.3	28.8	14.4	12.2	10.5	18.9	31.0	26.9	18.5
Sports shops	2.8	1.4	3.0	—	18.1	21.4	2.3	1.9	0.9	2.8	1.2
During a hike	—	—	—	—	—	15.6	7.6	7.2	38.8	—	28.8
Friends/Relatives	45.0	66.5	51.7	48.9	48.9	32.7	25.2	37.6	24.9	54.5	47.6
Internet	22.1	4.6	9.5	9.5	8.3	12.2	46.3	27.4	0.7	8.1	3.2
Mountaineer/Hiker magazines	3.7	2.0	4.9	4.2	4.9	5.1	1.4	4.9	0.0	4.7	0.0
Travel Books/Magazines	2.3	0.6	4.8	0.4	4.8						
Others	1.9	0.4	1.8	1.6	0.5	0.7	6.7	1.9	3.7	1.9	0.4

A: General hiking information
 B: Seeking companion in planning stage
 C: The primary information source of hiking knowledge and skill
 D: Opinion sources for planning a hiking trip
 E: Gaining knowledge and hand-on experience on hiking equipment and gadget
 F: Hiking gear and gadget
 G: Weather information
 H: Hiking route related information (trail condition, hiking distance/direction, and water source)
 I: Acquaintance of companion
 J: Extending hiking experience
 K: Sharing hiking knowledge and skill

Table 3: The Use of Communication Channels Used by Respondents Taking Different Hiking Status in Fulfilling Information Needs.

Communication Channel	Leader (%)	Follower (%)	DF	Chi-square	P-value
General hiking information					
Organized groups/clubs	24.7	24.6	2	23.409	.000**
Friends/family members	38.9	57.3			
Internet	36.3	18.1			
Seeking companions as planning hiking trips					
Organized groups/clubs	29.0	23.4	2	2.060	.357
Friends/family members	66.4	71.6			
Internet	4.7	5.0			
The primary information source of hiking knowledge and skill					
Organized groups/clubs	32.8	21.4	2	11.025	.004*
Friends/family members	53.1	68.4			
Internet	14.1	10.2			
Opinion sources for planning a hiking trip					
Organized groups/clubs	39.7	29.6	2	11.505	.003*
Friends/family members	46.0	61.5			
Internet	14.3	9.0			
Acquaintance of companion					
Organized groups/clubs	35.9	30.7	2	3.631	.163
Friends/family members	22.0	29.2			
Hiking	42.1	40.1			
Extending hiking experience					
Organized groups/clubs	34.0	27.8	2	3.857	.145
Friends/family members	55.3	64.1			
Internet	10.7	8.2			
Sharing hiking knowledge and skills					
Organized groups/clubs	22.4	16.4	3	7.216	.065
Friends/family members	42.2	53.5			
Hiking	31.8	27.1			
Internet	3.6	3.0			
Gaining knowledge and hand-on experience on hiking gear and gadget					
Organized groups/clubs	19.1	14.5	3	8.948	.030*
Sports shops/specialized stores	24.2	17.7			
Friends/family members	45.9	59.5			
Internet	10.8	8.4			
Obtaining newest info about hiking gear and gadget					
Organized groups/clubs	13.9	12.3	4	12.298	.015*
Sports shops/specialized stores	26.9	19.8			
Friends/family members	26.9	39.9			
Hiking	20.2	14.2			
Internet	12.0	13.8			
Weather information					
Organized groups/clubs	15.3	11.4	2	7.366	.025*
Friends/family members	23.5	35.2			
Internet	61.2	53.5			
Hiking route related information					
Organized groups/clubs	23.4	22.4	2	11.720	.003**
Friends/family members	35.6	50.2			
Internet	41.0	27.4			

Table 4: Communication Channels Used by Respondents Living in Different Regions in Fulfilling Information Needs.

Communication Channel	None Southern Region (%)	Southern Region (%)	DF	Chi-square	P-value
General hiking information					
Organized groups/Clubs	33.3	22.0	2	23.462	.000**
Friends/Relatives	31.7	56.6			
Internet	34.9	21.4			
Seeking companions planning hiking trips					
Organized groups/Clubs	41.4	20.6	2	25.947	.000**
Friends/family members	51.9	75.2			
Internet	6.8	4.2			
The primary information source of hiking knowledge and skill					
Organized groups/clubs	35.7	22.7	2	12.609	.002*
Friends/family members	48.7	67.1			
Internet	15.7	10.2			
Opinion sources for planning a hiking trip ⁽¹¹⁾					
Organized groups/clubs	52.1	26.9	2	32.974	.000**
Friends/family members	33.9	63.2			
Internet	14.0	9.9			
Acquaintance of companion					
Organized groups/clubs	47.3	28.3	2	25.992	.000**
Friends/family members	10.9	31.0			
Hiking	41.9	40.8			
Extending hiking experience					
Organized groups/clubs	41.3	26.5	2	12.787	.002*
Friends/family members	47.1	65.2			
Internet	11.6	8.2			
Sharing hiking knowledge and skills					
Organized groups/clubs	27.6	16.0	3	15.969	.001*
Friends/family members	37.3	52.1			
Hiking	29.1	29.5			
Internet	6.0	2.4			
Gaining knowledge and hand-on experience on hiking equipment and gadget					
Organized groups/clubs	24.8	13.2	3	35.517	.000**
Sports shops/specialized stores	27.2	17.9			
Friends/family members	32.0	61.8			
Internet	16.0	7.0			
Obtaining newest info about hiking equipment and gadget					
Organized groups/clubs	14.8	12.4	4	27.282	.000**
Sports shops/specialized stores	33.6	19.3			
Friends/family members	20.3	39.4			
Hiking	11.7	18.1			
Internet	19.5	10.9			
Weather information					
Organized groups/clubs	14.9	12.1	2	22.142	.000**
Friends/family members	13.2	36.5			
Internet	71.9	51.4			
Hiking route related information					
Organized groups/clubs	26.5	22.5	2	38.262	.000**
Friends/family members	21.4	44.8			
Internet	52.1	32.6			

Regardless of hiking status, regions, and the level of expertise, the Internet was identified the most useful communication channel for weather information. This study only analyzed 8 communication channels used by amateurs and serious hikers in fulfilling information needs. Other potential communication channels should be included in future studies. More follow-up studies will be needed to understand the reason in making the choice of communication channels to help forestry managers better deploy effective and durable information strategies.

References

- Anderson, R.B. (1987). Reassessing the odds against finding meaningful behavioral change in mass media health promotion campaigns. Paper presented to the Conference on Communication Theory and Public Relations, Illinois State University, Normal.
- Coble, T.G. & Selin, S.W. (2003). Hiking alone: Understanding fear, negotiation strategies and leisure experience. In: *Journal of Leisure Research* (35/1), p 1-22.
- Cole, D.N., Hammond, T.P. & McCool, S.F. (1997). Information quantity and communication effectiveness: Low-impact messages on wilderness trailside bulletin boards. In: *Leisure Sciences* (19), p 59-72.
- Fesenmaier, D.R. (1994). Traveller use of visitor information centers: Implication for development in Illinois, In: *Journal of Travel Research* (33/1), p 44-50.
- Fodness, D. & Murray, B. (1997). Tourist information search, In: *Annals of Tourism Research* (24/3), p 503-523.
- Fodness, D. & Murray, B. (1999). A model of tourist information search behavior, In: *Journal of Travel Research*,(37/3), p 220-230.
- Krumpe, E. & Brown, P.J. (1982). Redistributing backcountry use through information related to recreation experiences. In: *Journal of Forestry*, (June), p 360-364.
- Lovelock C.H., & Weinberg, C.B. (1984). *Marketing for Public and Nonprofit Managers*. New York.