

CONSERVATION EDUCATION IN KINABALU PARK, MALAYSIA: ANALYSIS OF VISITORS' SATISFACTION

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GOH HC & ROSILAWATI Z. 2014. Conservation education in Kinabalu Park, Malaysia: analysis of visitors' satisfaction. Tourism is an important component of protected areas. Nonetheless, it brings both positive and negative impacts. While tourism may potentially threaten nature conservation, it provides substantial economic income to support conservation efforts. Therefore, enhancing visitor awareness through education in the park is important. Today, most parks offer tourism activities with educational values. However, due to shortage of staff, it is not possible to obtain visitors' feedback pertaining to their educational experience. This paper aims to reveal visitors' satisfaction on their educational experience specifically the guiding quality in Kinabalu Park, Malaysia. Questionnaire survey was conducted in the park stratifying domestic and foreign visitors. While most visitors were satisfied with their experience and interaction with guides, there was still room for improvement in terms of capacity building among guides from the local communities. There was increasing expectation of foreign visitors and repeat visitors which were not captured by the park management. Differences in satisfaction level between domestic and foreign visitors were also studied.

Keywords: Tourism, protected areas, guiding, repeat visitors

INTRODUCTION

Globally, nature-based tourism is a prominent segment of tourism. It consisted of 75% of Australia's international tourism and 42% of European recreational visitors in 2000, which contributed USD122.3 billion to the tourism market in the USA in 2006 (UNWTO 2010). In fact, spending on ecotourism is growing by 20% annually, six times the rate of growth of the industry (TEEB 2009, Pratt et al. 2011). This growth is concurrent with the growth in the number of protected areas worldwide which has grown from 1000 in the 1960s to over 100,000 in 2002 and further increased to over 161,000 in 2010 (Besancon 2011). In particular, national park is under the protected area category designated for ecosystem protection and recreational purposes. Based on the protected area category of the International Union for Conservation of Nature (IUCN), national park is 'natural area of land and/or sea, designated to protect the ecological integrity of one or more ecosystems for the present and future generations, exclude exploration or occupation inimical to the purposes of designation of the area and, provide a foundation for spiritual, scientific, educational

and recreational and tourist opportunities, all of which must be environmentally and culturally compatible' (Lausche & Burhene-Guilmin 2011).

Apart from significance within the industry, nature-based tourism also contributes to the economic sustainability of protected areas. The major financial source in most protected areas comes from the managing agency, accounting for 85% in developed countries and 78% in developing countries (Lindberg & Enriquez 1994). Nevertheless, government allocation is generally low especially in developing countries. The financial allocation is estimated to represent only about 30% of the total amount for effective conservation (James et al. 1999). Although tourism revenue may not contribute as significant as government funding in most countries, it helps to partly relieve the budget constraint faced at the park level. On the other hand, protected areas traditionally play a key role in conserving the sensitive ecosystem. It is generally accepted that higher ecological integrity can be achieved only in the absence of human interference (Eagles & McCool 2002). Hence, these two key responsibilities of parks seem to be conflicting,

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yet, unavoidable. Thus, seeking a management measure which can accommodate visitor influx without escalating pressure on the park ecosystem is crucial. One of the management tools available which minimise environmental impacts of park visitors is environmental education programmes.

Although the importance of environmental education is recognised (Mason & Christie 2003, Nareshwar 2006, Powell & Ham 2008, Jacobson 2009, Yamada 2011, Ham & Weiler 2012), many parks face the problem of not having sufficient staff for its day-to-day operation and enforcement. A study conducted on the staff input in protected areas worldwide indicated that the global mean staff input was only 27 per 1000 km² in protected areas (James et al. 1999). The shortage in financial and human resources coupled with increasing use levels (Butler & Boyd 2000) has resulted in many protected areas lacking adequate personnel and management resources to provide sufficient environmental programmes (Parks Canada Agency 2000, Ballantyne & Hughes 2001) as well as in obtaining visitors' feedback on the existing programme.

Furthermore, most of the researches in the area of environmental interpretation and education have focused on programme evaluation and the impact it makes on the knowledge and attitude of visitors, not on the role of the park interpreter (Ap & Wong 2001, Taylor & Caldarelli 2004, Skanavis & Giannoulis 2009). In responding to this gap in knowledge, this paper focuses on visitors' satisfaction in Malaysia's first world heritage site—the Kinabalu Park.

MATERIALS AND METHODS

Study site

Kinabalu Park is located in Sabah on Borneo Island. Established in 1964 with an area of 75,370 ha, Kinabalu Park is a type II protected area according to the IUCN protected area management category. It was declared a World Natural Heritage Site in 2000, making it the first World Heritage Site in Malaysia (UNESCO World Heritage Center 2012). Tourism has remained significant since its establishment. In 2009, the park received a total of 424,213 visitors. Foreign visitors made up nearly one-fifth of the total (18.7%). Climbing has been a prominent activity of visitors. In 2009, 11.2% of the total

visitors climbed Mount Kinabalu. Of this, 59.3% were foreign climbers. The total tourism income generated in Kinabalu Park was USD2.7 million as of 2008. Climbing-related income (including permit and climbing certificates) was the major contributor, accounting for 50.4% of the revenue. Tourism activities offered in the park are natural resource based and are injected with educational elements using interpretational techniques including exhibition, signage, brochure, video show and guiding. Two types of guiding are offered in the park, i.e. guided walk on natural trails led by the staff of Sabah Parks and summit trail led by mountain guides.

Research methodology

This research employed a case study approach combining both qualitative and quantitative methods to measure visitors' satisfaction on the quality of education and communication through guiding. As education and communication are context-driven phenomena, using case study approach allows the research to have specific focus on the relevant events studied.

Both primary and secondary data were collected during field research. Techniques employed to collect primary data included visitor questionnaire survey and unstructured interview as well as semi-structured interview with park personnel. Observation through participation was carried out during guided walks by the park personnel and during mountain climbing to observe the interaction between the guides and visitors/climbers.

For questionnaire survey, a total of 399 samples were collected. The sample size was determined by the random sampling approach (Yamane 1967) using the formula $n = N/[1 + N(e^2)]$ where n = sample size, N = population size and e = error of estimation. Confidence level was at 95% and error margin, 5%.

Visitors' satisfaction was measured using opinion-based and normative indicators. The questionnaire consisted of three sections. The first section dealt with the general profile of the visit while the second focused on visitors' level of satisfaction on nature and mountain guiding. As the key guiding services offered in the park were nature guiding and mountain guiding, respondents were asked to rate nature guiding and mountain guiding separately. For the former, rating was given based on five indicators, namely,

attractiveness of the guided walk, information provided by the guide, guide's knowledge to answer questions, English proficiency and guide's friendliness. For the latter, respondents were asked to rate the mountain guides' knowledge, communication skill, friendliness, English proficiency and sense of responsibility since safety is a priority in mountain climbing. The third section was aimed at obtaining the profile of the respondent.

A pre-test was conducted to ensure that the survey procedure worked correctly. It involved several times of off-site checking on the questionnaire and a pilot survey. The off-site questionnaire tests were carried out on 10 colleagues and friends. The comprehensibility of questions, length of questionnaire, order of questions, clarity of instructions and questions missed were among the focus of conducting off-site pre-test. The questionnaire was then modified accordingly. Subsequently, a pilot survey was conducted to test the sampling procedures. Apart from the question design, the response rate, cost and time were key considerations during the pilot survey.

In the park, visitors were approached randomly at strategic points at the Park headquarters (HQ) and Poring station. These included the visitor centres, restaurants and dining areas both inside and outside the park, reception counters and hostels at Park HQ while at Poring Hot Spring, respondents were approached at

food stalls located outside the park, hot spring bath tubs and seating areas as well as visitor centres. Respondents were approached either via interview or using self-administered survey method, meaning that they could fill out the questionnaire themselves depending on their preference. Respondents would then be asked to explain their comments and additional notes were taken. The questionnaires were bilingual, i.e. Malay and English, in order to cater for domestic and foreign visitors. Extensive secondary data were also collected during the field research by referring to annual reports and documents compiled and published by the park as well as journal papers related to this topic.

Quantitative data collected through sampling were analysed using inferential analysis with the aid of SYSTAT version 13. Frequency analysis revealed profile of the respondents and cross tabulation was meant to explore the relationship of the two variables. Chi-square analysis was performed to determine the reliability of the results obtained through cross tabulation.

RESULTS AND DISCUSSION

Evaluation of guiding quality

A total of 399 respondents participated in the survey. Table 1 shows the respondents' background. A total of 70% of the respondents were repeat visitors and 60.7%, climbers. In

Table 1 Respondents' background

Description	Variable	Percentage
General profile	Repeat visitor	70.0
	Climber	60.7
Nationality	Domestic visitor	51.5
	Foreign visitor	48.5
Domestic respondent	Sabah	42.1
	Peninsular Malaysia and Sarawak	57.9
Foreign respondent	European	47.8
	ASEAN region	23.9
	Asian but not ASEAN	10.9
	American	11.5
	Oceania	5.8
Educational profile	University degree	55.6
	College	22.2
	Other categories	22.2
Travel arrangement	Package tour	31.7
	Non-package tour	68.3
Length of stay	Day trip	35.2
	1-night stay	16.5
	2-night stay	22.8
	3-night stay	15.7
	More than 3 nights	9.8

terms of nationality, majority of the visitors was domestic visitors, contributing 51.5% of the total respondents. Among the foreign visitors, the Europeans made up the largest group (47.8%), followed by ASEANs (23.9%), Americans (11.5%), Asians but not ASEANs (10.9%) and Oceania (5.8%). For domestic visitors, 42.1% were from Sabah and 57.9% from Peninsular Malaysia and Sarawak. About 55.6% of the respondents had university degree, while 22.2% attended college. A total of 68.3% of the respondents came to the park on a non-package tour. Majority of the respondents was day trippers (35.2%). For those staying overnight, 2-night stay was the most popular option (22.8%), followed by 1-night (16.5%) and 3-night stays (15.7%). Of these, 68.6% of the respondents stayed outside the park.

The average visitors' satisfaction in Kinabalu Park was as expected and satisfying. Scenery in Kinabalu Park was rated the highest among all the attributes where 55.8% of the respondents rated it as most satisfying (Table 2). However, 24.7% of the respondents rated activities as most satisfying and only 20.4% rated information and

educational elements of the activities in Kinabalu Park as most satisfying (Table 2).

In the category of guided nature walk, guide's friendliness and trail attractiveness were rated the highest by respondents whereby 31.0 and 29.5% of respondents rated the two attributes as most satisfying. In contrast, English proficiency was rated the lowest among all attributes. Only 18.8% of the respondents were most satisfied with English proficiency while 29.5% rated it as 'as expected'. Knowledge and information were subsequently affected by the relatively lower score in English proficiency. Respectively, 27.7 and 31.1% of the respondents rated the two attributes as 'as expected', disappointing and most disappointing.

As for mountain guiding, attributes evaluated included knowledge, communication skill, friendliness, English proficiency and responsibility of the mountain guides. Friendliness and responsibility were rated highest among all the attributes, with 25.3 and 24.4% of the respondents respectively rated as most satisfying. Communication skill, knowledge and English proficiency scored lower in the category of most

Table 2 Visitor rating (%) on various aspects in Kinabalu Park

Description	Most disappointing	Disappointing	As expected	Satisfying	Most satisfying
Overall rating					
Accessibility	1.3	4.5	24.0	47.8	22.4
Cleanliness	1.0	5.4	23.0	47.9	22.6
Scenery	1.6	1.3	7.5	33.8	55.8
Activity	0.8	5.5	25.5	43.5	24.7
Information	0.8	5.4	26.1	47.3	20.4
Meal	1.2	4.7	38.8	41.2	14.1
Accommodation	1.5	4.3	32.4	44.8	17.0
Hospitality	0.6	2.5	27.9	46.7	22.4
Charge on activity	1.9	10.4	40.9	36.8	10.1
Charge on climbing	2.3	6.8	38.8	41.1	11.0
Charge of guide	3.1	5.0	38.7	40.6	12.6
Guided walk					
Attractiveness	1.1	4.0	22.2	43.3	29.5
Information	2.1	3.2	25.8	41.7	27.2
Knowledge	0.7	3.9	23.1	46.6	25.6
English proficiency	1.0	2.4	29.5	48.3	18.8
Friendliness	0.3	2.8	21.6	44.3	31.0
Mountain guiding					
Knowledge	9.7	4.7	25.0	40.7	19.9
Communication skill	2.5	5.4	26.3	43.3	22.5
Friendliness	0.4	5.0	20.3	49.0	25.3
English proficiency	0.8	5.4	30.6	44.6	18.6
Responsibility	1.2	6.2	24.4	43.8	24.4

satisfying. Knowledge attribute was rated by most respondents as most disappointing (9.7%). English proficiency was rated as ‘as expected’ by most respondents (30.6%).

Nationality of visitors showed significant impact on the satisfaction level, particularly among foreign visitors (Table 3). The guide’s friendliness and attractiveness of activities were rated highest by the majority of respondents. A total of 20.1% of the locals, 42.3% of ASEANs, 50.0% of the Asians, 43.8% of the Americans, 48.2% of the Europeans and 50.0% of visitors from Oceania rated guide’s friendliness as most satisfying. Similarly, 19.9% of the locals, 14.0% of the ASEANs, 21.1% of the Asians, 55.0% of the Americans, 35.9% of the Europeans and 12.5% of visitors from Oceania rated activities as most satisfying. In the guided tour, 24.5% of the locals, 34.6% of the ASEANs, 56.3% of the Asians, 36.4% of the Europeans and 50.0% of visitors from Oceania rated attractiveness as most satisfying.

Nevertheless, attributes which revealed the capacity of the guide scored lower, particularly among the Americans and visitors from Oceania. More than half of the Americans (57.1%) rated the quality of information as ‘as expected’ and

27.3% of the visitors from Oceania rated the attribute as disappointing. In terms of guided tour information, 70% of the Americans and 50% of visitors from Oceania rated it as ‘as expected’. A total of 56.3% of the Americans rated the guide’s English as ‘as expected’ and 50% of visitors from Oceania rated it as disappointing. Visitors from ASEAN countries, Asia, Europe and Malaysia showed no significant difference in satisfaction level of these attributes.

Most climbers rated all attributes of mountain guiding as satisfying except for Asian climbers, who rated the attributes as most satisfying. In particular, 41.7% of the Asian climbers rated communication skill and sense of responsibility among the mountain guides as most satisfying and 58% rated the mountain guides’ friendliness as most satisfying. In contrast, the Europeans rated the quality of mountain guiding lower than guiding quality during guided walks. Majority of the Europeans rated mountain guiding as satisfying for the category of mountain guides’ knowledge and English proficiency. Majority of the domestic climbers and ASEANs rated all attributes as satisfying and as expected. Comparing all

Table 3 Visitor satisfaction level by nationality

Description	Malaysian	ASEAN	Asian but not ASEAN	American	European	Oceania
OVERALL ACTIVITIES						
Quality of activity						
Most disappointing	0.0	2.3	0.0	0.0	2.6	0.0
Disappointing	5.8	9.3	5.3	5.0	3.8	0.0
As expected	30.9	25.6	26.3	15.0	16.7	12.5
Satisfying	43.5	48.8	47.4	25.0	41.0	75.0
Most satisfying	19.9	14.0	21.1	55.0	35.9	12.5
Quality of information						
Most disappointing	0.5	2.4	0.0	0.0	1.3	0.0
Disappointing	3.1	2.4	5.0	9.5	7.6	27.3
As expected	26.0	21.4	30.0	57.1	20.3	27.3
Satisfying	52.0	61.9	40.0	23.8	39.2	27.3
Most satisfying	18.4	11.9	25.0	9.5	31.6	18.2
GUIDED TOUR						
Attractiveness						
Most disappointing	1.2	0.0	0.0	0.0	1.8	0.0
Disappointing	1.2	15.4	12.5	0.0	5.5	0.0
As expected	23.9	26.9	0.0	10.0	23.6	25.0
Satisfying	49.1	23.1	31.3	90.0	32.7	25.0
Most satisfying	24.5	34.6	56.3	0.0	36.4	50.0

(continued)

Table 3 (continued)

Description	Malaysian	ASEAN	Asian but not ASEAN	American	European	Oceania
Information						
Most disappointing	1.2	0.0	5.9	0.0	3.6	25.0
Disappointing	2.4	3.8	5.9	0.0	5.5	0.0
As expected	24.1	30.8	23.5	70.0	20.0	50.0
Satisfying	50.6	23.1	29.4	10.0	34.5	25.0
Most satisfying	21.8	42.3	35.3	20.0	36.4	0.0
Knowledge						
Most disappointing	0.6	0.0	0.0	0.0	1.9	0.0
Disappointing	2.9	7.7	0.0	0.0	5.6	25.0
As expected	25.9	15.4	18.8	30.0	18.5	25.0
Satisfying	54.1	42.3	37.5	40.0	27.8	50.0
Most satisfying	16.5	34.6	43.8	30.0	46.3	0.0
English proficiency						
Most disappointing	1.2	0.0	0.0	0.0	1.8	0.0
Disappointing	1.2	3.8	0.0	0.0	3.5	50.0
As expected	29.2	23.1	25.0	56.3	28.1	25.0
Satisfying	54.2	53.8	43.8	43.8	31.6	25.0
Most satisfying	14.3	19.2	31.3	0.0	35.1	0.0
Friendliness						
Most disappointing	0.0	0.0	0.0	0.0	1.8	0.0
Disappointing	2.4	7.7	0.0	0.0	3.6	0.0
As expected	26.0	19.2	12.5	18.8	12.5	25.0
Satisfying	51.5	30.8	37.5	37.5	33.9	25.0
Most satisfying	20.1	42.3	50.0	43.8	48.2	50.0
MOUNTAIN GUIDING						
Knowledge						
Most disappointing	13.6	4.2	7.7	0.0	5.8	0.0
Disappointing	3.0	8.3	7.7	10.0	3.8	20.0
As expected	22.7	37.5	15.4	20.0	28.8	20.0
Satisfying	43.2	33.3	30.8	60.0	34.6	60.0
Most satisfying	17.4	16.7	38.5	10.0	26.9	0.0
Communication skill						
Most disappointing	2.9	0.0	8.3	0.0	2.0	0.0
Disappointing	3.7	8.3	8.3	0.0	5.9	40.0
As expected	24.1	29.2	16.7	60.0	27.5	20.0
Satisfying	50.4	41.7	25.0	20.0	35.3	40.0
Most satisfying	19.0	20.8	41.7	20.0	29.4	0.0
Friendliness						
Most disappointing	0.0	0.0	0.0	0.0	2.0	0.0
Disappointing	3.6	12.5	8.3	10.0	0.0	40.0
As expected	20.3	16.7	8.3	20.0	27.5	0.0
Satisfying	55.8	37.5	25.0	60.0	37.3	60.0
Most satisfying	20.3	33.3	58.3	10.0	33.3	0.0
English proficiency						
Most disappointing	0.0	0.0	8.3	0.0	1.9	0.0
Disappointing	3.6	8.3	8.3	20.0	1.9	40.0
As expected	29.0	41.7	33.3	40.0	30.8	0.0
Satisfying	50.7	37.5	16.7	30.0	40.4	40.0
Most satisfying	16.7	12.5	33.3	10.0	25.0	20.0
Responsibility						
Most disappointing	0.7	0.0	0.0	0.0	3.8	0.0
Disappointing	2.9	12.5	25.0	0.0	7.7	20.0
As expected	23.0	37.5	0.0	40.0	23.1	40.0
Satisfying	54.0	20.8	33.3	40.0	30.8	40.0
Most satisfying	19.4	29.2	41.7	20.0	34.6	0.0

attributes, English proficiency among the mountain guides scored the lowest.

Apart from nationality, significant differences in satisfaction level were observed between the first-time and repeat visitors in the attributes of guided tour-information, guided tour-knowledge, guided tour-English proficiency and mountain guiding-knowledge (Table 4). For guided tour, 32.8% of the first timers rated information as most satisfying, but only 14.8% of the repeat visitors thought the same. Similarly, 31.4% of the first timers rated guided tour-knowledge as most satisfying, but only 12.6% of the repeat visitors were most satisfied. A percentage of 22.4% of the first timers were most satisfied in terms of the guided tour-English proficiency, but only 10.9% of the repeat visitors felt the same. A percentage of 22.2% of the first time climbers were most satisfied with the knowledge of mountain guides, but only 14.5% of the repeat visitors were of the same opinion. In fact, 11.6% of the repeat climbers rated the mountain guides' English proficiency as disappointing and most disappointing.

DISCUSSION

In Kinabalu Park, the scenery and quality of activities were rated highly by visitors. This conforms to its high biodiversity as well as attempts of Sabah Parks to diversify tourism activities to attract park visitors. While these efforts are recognised, the guiding quality among guides during nature walks and mountain climbing still require further improvements. Referring to Cohen's (1985) categorisation of guides' roles, the guides in Kinabalu Park have no problem playing instrumental role such as showing access and navigation effectively. They are also capable of playing the interactional role, e.g. making the setting non-threatening. This can be observed through the satisfaction level on the mountain guides' responsibility and information scores among nature guides. Nevertheless, more training for guides is necessary to enhance their communicative role focusing on communicating information and interpretation (e.g. mountain guides' communication and English scores,

Table 4 Visitor satisfaction level by first-time and repeat visitors

Description	First-time visitor	Repeat visitor
Guided tour-information		
Most disappointing	1.5	3.4
Disappointing	3.1	3.4
As expected	28.2	20.4
Satisfying	34.4	58.0
Most satisfying	32.8	14.8
Guided tour-knowledge		
Most disappointing	0.5	1.2
Disappointing	4.1	3.5
As expected	22.7	24.1
Satisfying	41.3	58.6
Most satisfying	31.4	12.6
Guided tour-English proficiency		
Most disappointing	1.0	1.1
Disappointing	3.6	0.0
As expected	24.0	41.3
Satisfying	49.0	46.7
Most satisfying	22.4	10.9
Mountain guiding-knowledge		
Most disappointing	9.6	10.1
Disappointing	6.0	1.5
As expected	27.5	18.8
Satisfying	34.7	55.1
Most satisfying	22.2	14.5

nature guides' knowledge and information scores). The social role emphasising tension management and social integration using humour and entertainment was also lacking due to shortcomings in communication despite the high score in friendliness category shown by both the mountain and nature guides. Subsequently, this has thwarted the guides' role in resource management. The guides' skills must be enhanced so that they can play an efficient role as heritage interpreters to encourage long-term change of values by participants about the historic and contemporary nature of the indigenous culture and the park itself.

Factors contributing to the existing guiding quality in Kinabalu Park include guiding training and arrangement as well as visitors' expectations due to the different profiles. In addition, park visitors also expected a higher standard of educational components through guiding quality in Kinabalu Park in order to reflect the park's status as a World Heritage Site.

The lower scores in English proficiency, knowledge and information were attributed to the lack of training given to the guides. According to the park officers, guided walks were conducted three times a day by the staff from the Interpretation and Education Unit of the Research and Education Division. Guided walks are available at the Park HQ on the Silau-silau trail and the botanical garden and at Poring Hot Spring in the Tropical Garden, Orchid Conservation Centre, canopy walkway and Butterfly Farm. All guided walks are conducted in English. A Malay language tour is available upon request. New staff (guides) would participate in a two-week intensive training based on 'learning through participation' in the existing guiding programme conducted by the senior staff. The new staff is then expected to learn the trade after that. There was no English proficiency course for them although walks were conducted in English. Interviews with the guides revealed that many of them faced difficulties in communicating with foreign visitors. This explained the relatively low satisfaction level among visitors from English speaking countries, e.g. the Americans and visitors from Oceania.

In addition, there was no limit in group size during nature walks. The group sizes could range from one participant during low visitor period and rainy seasons and up to 20 participants during peak seasons. A guide would face difficulty in

communicating with a large group of participants which subsequently affected the effectiveness of conveying information. Lack of consistencies was also observed among nature guides. Insufficient input without technical background among the guides also contributed to the lower satisfaction level expressed by the visitors.

Unlike nature guides, the mountain guiding service was rendered by members from local communities, co-arranged by Sabah Parks together with the Mountain Guide Committee. According to the Park Enactment No. 10 of 2002, all mountain ascends must be accompanied by a mountain guide. In the early days of park establishment, the role of a mountain guide was mainly for safety consideration and to assist in cases of emergencies and difficulties due to unexpected weather changes in the summit. More than half of the mountain guides in Kinabalu Park were working on part-time basis. Over the years, their roles became diversified alongside the growth in the number of climbers, particularly foreign climbers. Now they perform the duties of a 'guide' as perceived and expected in the mainstream tourism industry.

While locals may have the knowledge about the flora and fauna, they are not equipped with the capacity of foreign language proficiency and communication skills as required in the tourism industry. Working on part-time basis also resulted in the lack of motivation and commitment among guides to improve their communication skills. In tackling this shortcoming, Sabah Parks organises annual mountain guide training programme. It covers aspects of general introduction to the park, rules and regulations, basic public relation skills, safety measure and response including first aid training, emergency rescue and handling injuries. Nonetheless, this effort was proven insufficient to meet the climbers' needs specifically in the expectation of English proficiency which subsequently thwarted the quality of communication skills and the guides' efforts in communicating the knowledge to climbers. Informal interviews with some climbers revealed that the climbers hardly talked to their mountain guides as some guides were very quiet despite being very responsible in taking care of the climbers' safety. This response not only came from climbers from the English-speaking countries but also other Europeans who rated the quality of mountain climbing lower than the quality of nature guides.

Significant satisfaction differences were also seen in first-time and repeat visitors and climbers. Respondents disclosed that there had not been much improvement in terms of the content of information and knowledge conveyed by nature guides since their last visit. Similarly, while safety was still the priority, there was a growing demand among repeat climbers to learn more about the park and its environment, particularly the flora and fauna along the summit trail. Repeat climbers especially foreign climbers indicated safety aspect was their priority during the first ascend due to unfamiliarity with the trail but learning along the trail was the key interest during following climbs. Giving this, the disappointment was expressed by repeat climbers over the mountain guides' English proficiency which directly affected the quality of communication and efforts of conveying knowledge and information between guides and climbers.

RECOMMENDATIONS AND CONCLUSIONS

This paper discloses the increasing demand among visitors to learn more about the park during their visit than what can be offered. Through the evaluation of guiding quality, conservation education is obviously not a one-way but a two-way communication between the park and its visitors. While the scientific studies conducted in the park are vast, the extent to which the quantity and quality are translated and delivered to the visitors becomes the key. Focus should also be given to how knowledge-transfer has evolved over time in light of the increasing demand and diversified expectation.

In a wider context, these issues in Kinabalu Park may be a reflection of the general challenges experienced in other protected areas in developing countries. As a result of insufficient funding and manpower training as well as the incapability to respond to the changing demands of visitors, efforts to promote public awareness through tourism activities may not be duly realised.

In order to fill the gap between demand and supply of educational activities, nature guiding and mountain guiding need substantial improvements to meet visitors' expectations. Being a World Natural Heritage Site and a protected area, this effort should not be seen only to meet the tourism demand but to enhance

and support the conservation objective in the long run. In the case of nature guiding, more intensive training in English proficiency and scientific input is necessary. As the Sabah Parks' Interpretative Unit is parked under the Research and Education Division, it would be favourable to schedule the nature guides short-time shift from their daily routine and get exposure in lab activities, interpretative skills, training workshops and scientific expeditions. Apart from that, a controllable visitor group size must be established for the nature guided walks. Alternatively, self-guided interpretive programmes can be given more emphasis. These may include brochures and audio aid during walks.

As for mountain guides, the unfavourable profiles, e.g. local people who are not trained in interpretation and tourism business as well as working on a part-time basis should not be the stumbling block to thwart the improvement in their guiding quality. Capacity building is always value-added to the local community in building a sustainable society as it helps in enhancing the benefits of tourism particularly economic and employment opportunities to local communities. To improve the communication skills, an important aspect to be included in training is using humour as ice breaking at the initial stage of the tour where there are cultural differences between the group and the guide (Howard et al. 2001). With the rising number of foreign climbers, English proficiency would eventually become a compulsory element in mountain guiding. As such, a mutual understanding between the Mountain Guide Committee and Sabah Parks must be achieved. Arranging periodic training in English proficiency, rearranging the mountain guide's schedule by having stratification of language proficiency and incentives for attending training may serve as meaningful options in the efforts to improve the existing mountain guiding quality.

Conducting questionnaire survey could help the park management to obtain visitors' and climbers' feedback. In light of limited funding and human resource available which are also applicable in Kinabalu Park, Sabah Parks could consider long-term collaboration with local universities to conduct surveys of mutual benefits. Through time-series monitoring, appropriate changes and improvements could be subsequently proposed to bridge the gap.

Last but not least, this research examined visitors' views and evaluations of guiding performance rather than the guides' own perceptions of their roles and effectiveness. Hence, it is suggested that future study should focus on understanding the 'world of guides' so that a comprehensive overview of the issues and subsequent measures to overcome the shortcoming can be made.

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