Contents lists available at ScienceDirect

Kasetsart Journal of Social Sciences

Local community participatory learning with a nature interpretation system: A case study in Ban Pong, Sansai district, Chiang Mai, Thailand

Raktida Siri[*], Onjana Sanchai Chantraprayoon

School of Tourism Development, Maejo University, Chiang Mai 50290, Thailand

ARTICLE INFO

ABSTRACT

Community involvement is a major factor in stimulating the sense of community ownership and self-empowerment, which consequently create a strong and sustainable community. Thus, this study recognized the importance of community involvement and the role of interpretation toward tourism. The aim of this work was to study the participatory learning process of the local community in the development of an interpretive nature trail.

The research employed multiple research methods consisting of surveys, focus group discussion, and participatory observation. Samples used in the study were members of the Agro-tourism Club of Ban Pong community, Ban Pong, Papai sub-district, Sansai district, Chiang Mai province. The community members undertook learning through a four-step participatory learning process; (1) analyzing problems, (2) planning, exploring, and voting, (3) implementation, and (4) evaluation. The results showed that the community members had gained knowledge about tourism interpretation and showed a positive attitude toward the development of tourism interpretation. Moreover, at the end of the study, they had actually developed an interpretative nature trail that was derived from the real needs of their community.

© 2017 Kasetsart University. Publishing services by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Introduction

Community-based tourism (CBT) was developed during the 1970s due to a need to mitigate the negative impacts of mass tourism as well as the rise of the conservation movement. It has become widely known and it has been championed as a way to promote sustainable tourism (Sebele, 2010). CBT brings benefits in various ways. It allows tourists to learn about the culture as well as the resources of the community and also generates tourism income for the community at the same time. Community participation is one of many key factors that contribute to successful community-based tourism (Lucchetti & Font, 2013).

Interpretation plays an important role in sustainable tourism. Providing travel information only gives tourists an opportunity to learn and interact with history, culture, and environment of travel destination. However efficient interpretation is able to promote sustainable tourism and creates pleasant travel experiences. It manages the tourists and minimizes the negative impacts from the tourists' activities by controlling tourist mobility in both time and space. For example, tourists can be guided to avoid disturbing fragile areas. It consequently improves the quality of environment and the livelihoods of the local people (Cooper, 1991; Moscardo, 2003).

Utilization of interpretation can help to develop potential travel destinations to become more well-known,

* Corresponding author.
  E-mail address: raktida@gmail.com (R. Siri).

such as in a small town in Saskatchewan province, Canada, which was once unknown and people used to pass it by. Efficient interpretation has revived the noteworthy stories of the town, which then have become selling points for the town making it one of the most popular travel destinations. Travel interpretation generates positive economic impacts for the host community by producing tourism income. Interpretation can guide tourists to local businesses such as post offices, souvenir shops, and restaurants, among others. Interpretation creates an understanding between tourists and the host community. An appreciation of local cultural heritage and resources activates the pride of the locals toward their own heritage and way of life, leading to the ultimate goal of heritage preservation (Macbin, 1989). Therefore, it is hard to refuse that interpretation is one of the essential factors for successful CBT.

Interpretation will be more beneficial for sustainable tourism when it is derived from the needs and basic social characteristics of the people to whom the resources belong. Locals should be involved in the decision-making at all stages of development such as content development and media design, among other aspects. People participation encourages a sense of community ownership and also empowers individuals (Macbin, 1989). CBT that is developed from the real needs of locals and is managed by the locals is believed to promote a wealthy community (Blackstock, 2005; Nicholas, Thapa, & Ko, 2009; Puczkó & Rátz, 2000). Their involvement is therefore a paramount key for CBT.

CBT in Thailand has been developed since 2002 and a number of CBT enterprises have been established since then in many parts of the country. One of the successful initiatives in northern Thailand is the Ban Pong community located in Papai sub-district, Sansai district, Chiang Mai, Thailand. The village was established in 1898. The area is surrounded by abundant forests (1,384 acres) and contains watersheds that sustain life downstream. The area once was threatened by cutting down of the forests, an action that caused droughts and affected downstream water users. His Majesty King Bhumibol Adulyadej of Thailand therefore initiated the reforestation project as a way to nurse the area back to full health. Throughout the years, the Agro-tourism Club organized by the villagers with support from the Maejo University, Royal Irrigation Department of Thailand together have protected the area to maintain the health of its watersheds. For its physical and mental efforts and dedication to natural conservation and environmental rehabilitation, the Ban Pong community received the Green Globe Award in 2008 in the Community Category (community, urban community, community network) as recognition. Ban Pong has now become one of the urban forests as well as an eco-tourism destination near Chiang Mai city.

Therefore, this research aimed to study the participatory learning process of the local community in the development of an interpretive nature trail. The researchers of this study believe that community involvement plays an essential role in fostering community-based tourism development.

Methods

The research employed multiple research methods consisting of surveys, focus group discussion, and participatory observation. Both qualitative and quantitative data gathered from these methods were analyzed using descriptive analysis (frequency, percentage, mean score, and standard deviation) and also content analysis to complement each other. The study was carried out from May to June 2014. Samples used in the study were members of the Agro-tourism Club of Ban Pong community, consisting of 23 subjects (17 adults and 6 children) who voluntarily participated in the study. A questionnaire was used to collect the following data.

True-false questions (15 questions) were used for pretest and post-test (before and after attending the four-step participatory learning process) to identify three levels of knowledge of travel interpretation: the number of correct answers on these questions was used to infer the level of knowledge that is, if the participant has 11—15 correct answers, this implied a high level of knowledge, 6—10 was translated to an intermediate level, and 0—5 was considered as a low level.

Results

More than half of the subjects were male (56.5%), with one-third in the age range 61—80 years old (34.8%) followed by 41—60 years old (30.4%), less than 21 years old (21.1%), and 21—40 years old (8.7%). More than half of them were married (56.5%) 30.4 percent were single, and 13.0 percent were divorced. Subjects with two children in their family accounted for 60.9 percent. For the level of education, 65.2 percent were at the primary-school level, followed by secondary-school level (17.4%), masters-degree level (8.7%), associated-degree level (4.3%), and undergraduate-degree level (4.3%). One-fourth of respondents were students (26.8%) followed by farmers, freelance, and government officers all with the same portion of 17.3 percent, 13.0 percent were wild plant hunters (who collected plants in forests and sold them in a farmers' market), 4.3 percent were housewives, and 4.3 percent were business owners. Professional supplements were local guides (30.4%), vendors (13.0%), food caterers (8.7%), public speakers (8.7%), and hairdressers (4.3%). The average monthly income was 6,434.78 baht; income ranged from 0 to 30,000 baht (exchange rate used was 1 USD = 32.51 THB on January 28th, 2015).

The following data shows the participatory learning process of the local community in the development of an interpretive nature trail comprising four-steps: (1) analyzing problems, (2) planning, exploring, and voting, (3) implementation, and (4) evaluation. Steps 1, 2, and 3 were derived from focus group discussion among the members of the Ban Pong Agro-tourism Club and participant observation. Step 4 was derived from conducting survey (see Figure 1).

Analyzing Problems

Locals had a discussion regarding their community and CBT, and found problems were caused by their current travel interpretation that had been used since 1999. They described trouble in dealing with oversized groups of tourists, the difficulty tourists had in finding their way to their village, the lack of tour guiding techniques used by

Figure 1 Group discussion with the Ban Pong Agro-tourism Club members

local guides, and damaged signs. They developed a list of information about their village that they wanted the visitors to be aware of. Then, they ranked the items that they had identified from the most wanted to the least wanted, which were natural resources (local plants and animals), way of life, beliefs and local wisdom, culture and traditions, and history, respectively.

Planning, Exploring, and Voting

Locals together explored three community nature trails for the development plan of an interpretive nature trail. They brainstormed, exchanged ideas, and voted for things that most of them agreed upon and wanted to develop. The most mentioned topic was the poor signage they had as the current signs were broken and missing roadside signs confused tourists. Their wayside exhibits (displayed at a 45-degree angle for ease of reading) were damp, moldy, and broken because of the rainwater trapped inside such wayside exhibits. They suggested that this type of sign was not suitable for use in a tropical climate like Thailand's. Moreover, during wind storms, especially during the hurricane season, tree branches frequently fell onto the wayside exhibits. They suggested that first they wanted to develop tree tags that would help with nature trails, which in fact was consistent with the result in the *Analyzing Problem* stage regarding the information they most wanted to share with the visitors (natural resources). The tree tag markers were used with leaflets, as the markers were only numeric codes attached to plants, while the leaflet provided information on each plant, consisting of both local and scientific names as well as a detailed description of the plant. This information had been obtained from local

wisdom (Trirat, Ponghan, Dangsuwann, & Ponghan, 2013) and academic literature.

Implementation

The locals verified the plant information before the actual installation of tree tags for their three nature trails: 800 m, 3.2 km, and 8 km (Trirat et al., 2013). Local guides chose the positions for tree-tag installation on these three trails.

Evaluation

The locals themselves assessed the participatory learning process in the development of an interpretive nature trail by completing survey as follows: Levels of knowledge on travel interpretation before and after attending the four-step participatory learning process.

Subjects took a pre-test. The results showed that they had from low to intermediate levels of knowledge before attending the four-step participatory learning process (lowest individual score of 5 and highest individual score of 10). After attending the learning process, they took a post-test. Their levels of knowledge were from intermediate to high (lowest individual score of 7 and highest individual score of 15). The average score changed from 8.43 to 11.43 ($p < .05$).

Discussion

Participatory Learning Process

The research employed multiple research methods consisting of surveys, focus group discussion, and

participatory observation. Both qualitative and quantitative data gathered from these methods were analyzed using descriptive analysis (frequency, percentage, mean score, and standard deviation) and also content analysis to complement each other. The study was carried out from May to June 2014. Samples used in the study were members of the Agro-tourism Club of the Ban Pong community. There were 23 subjects (17 adults and 6 children) who voluntarily participated in the study. Among these subjects, there were six students (26.08%), seven local guides (30.43%), four government officers (17.39%), four freelancers (17.39%) and two from other occupations (8.69%).

The participatory learning process has not only been studied in a tourism context but also in other disciplines. For example, Kaewjumnong (2013) developed a participatory learning process model related to community environmental management in Nakhon Si Thammarat province, Thailand. The process comprised six steps: (1) finding problems, (2) analyzing causes of problems, (3) planning solution, (4) making the community master plan, (5) action, and (6) evaluation. In contrast, the current study consisted of four steps: (1) analyzing problems, (2) planning, exploring, and voting, (3) implementation, and (4) evaluation. Kaewjumnong (2013) found that the related stakeholders consisted of organization leaders, community leaders, organization representatives, people, and external organizations involved in the process, while the current study showed less external organization involvement. The community mentioned their need to have greater cooperation with tour companies. The participatory learning process of the local community in the development of interpretive nature trails appeared to be supported by the Experiential Learning Theory (ELT) of Kolb (Kolb & Kolb, 2005) which considers that "learning is the process whereby knowledge is created through the transformation of experience. The learning cycle shows how experience is translated through reflection into concepts, which in turn are used as guides for active experimentation and choice of new experiences." (Kolb, 1984, p. 38). The theory consists of four stages of learning, which may begin at any stage but must follow each other in sequence. These four stages are: Concrete experience (CE) or do, Reflection observation (RO) or observe, Abstract conceptualization (AC) or think, and Active experimentation (AE) or plan.

According to ELT, locals *observed* (RO of their current interpretation) and found deficiencies such as local guides providing plant information randomly depending on each tour guide's discretion or missing road signs leaving tourists clueless, etc. Locals *brainstormed* (AC) to investigate problems and develop solutions. They suggested having more road signs and interpreter training should be provided to local guides to establish a standard for providing travel information. They voted to develop tree tags and planned other actions (AE). Tree tags and leaflets provided detailed information of plants. They *installed* (CE) tree tags along their nature trails as planned and tested by conducting a pilot tour. They found the tags worked well as markers as every local guide made a stop when a maker was noticed. It was noted that previously local guides used to stop at random locations where they talked to tourists about plants. With the tree tags, the locations for stops to tell the story or details about plants become more consistent for the local guides. Nonetheless, the leaflets should be made of materials they are more durable in wet conditions.

According to Dale's cone of learning (Dale, 1969, p. 108), we remember 10 percent of what we read, 20 percent of what we hear, 30 percent of what we see, 50 percent of what we see and hear, 70 percent of what we hear and write, and 90 percent of what we do. The experiential learning process of locals or their aforementioned hands-on experiences appeared to affect the memory the most.

Knowledge

Locals took pre- and post-tests and the scores were different. Locals had higher scores after going through the four stages of the learning process. However, we were not able to identify those who had more knowledge of interpretation from the others because of the limitation of the testing method. The tests only covered general knowledge of interpretation such as sign types, sign colors, uses, and benefits. Local plant information was not included. If it had been, we believe that the local tour guides would have obtained the highest scores because they were more familiar with plant information. This study only looked at a progress of learning by having knowledge tests before and after participating in the learning process for comparison purposes.

Conclusion

Interpretation is one of the most important factors for sustainable tourism. This study aimed to investigate the participatory learning process of the local community in the development of an interpretive nature trail. This not only created a chance to develop an interpretative nature trail that resulted from the real needs of their community, but also created an opportunity for locals to build self-confidence and a positive attitude toward travel interpretation via the four-step participatory learning process: (1) analyzing problems, (2) planning, exploring, and voting, (3) implementation, and (4) evaluation.

Conflict of Interest

There is no conflict of interest.

Acknowledgments

References

Blackstock, K. (2005). A critical look at community based tourism. *Community Development Journal, 40*(1), 39—49.

Cooper, C. (1991). Interpretation: A destination management and marketing tool. *Insights,* July, 1—8.

Dale, E. (1969). *Audio-visual methods in teaching.* New York, NY: Holt, Rinehart & Winston.

Kaewjumnong, C. (2013). The model development of participatory learning process related to community environmental management. *European Scientific Journal, 9*(2), 232—240.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning of higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Lucchetti, V. G., & Font, X. (2013). *Community based tourism: Critical success factors*. Retrieved from http://www.icrtourism.org/wp-content/uploads/2012/03/OP27.pdf.

Macbin, N. (1989). The social helix: Visitor interpretation as a tool for social development. *Heritage Interpretation, 2*, 149–155.

Moscardo, G. (2003). Interpretation and sustainable tourism: Functions, examples and principles. *The Journal of Tourism Studies, 14*(1), 112–123.

Nicholas, L., Thapa, B., & Ko, Y. (2009). Residents' perspectives of a world heritage site the Pitons Management Area, St. Lucia. *Annals of Tourism Research, 36*(3), 390–412.

Puczkó, L., & Rátz, T. (2000). Tourist and resident perceptions of the physical impacts of tourism at Lake Balaton, Hungary: Issues for sustainable tourism management. *Journal of Sustainable Tourism, 8*(6), 458–478.

Sebele, L. (2010). Community-based tourism ventures, benefits and challenges: Khama Rhino Sanctuary Trust, Central District, Botswana. *Tourism Management, 31*, 136–146.

Trirat, S. S., Ponghan, S., Dangsuwann, M., & Ponghan, K. (2013). *Green map for sustainable management of community tourism resources*. Chiang Mai, Thailand: Maejo University. [in Thai]