

Identified Tourist Attraction Management Based Environmental Education In A Provincial Community

Sutida Thongphak^{1,*}, Wee Rawang², Nug-rob Rawangkarn³, and Seree Woraphong⁴

Abstract

Place identity attracts tourists visiting and touching the authentic beauty of attractions. It is a powerful instrument for symbolic meanings of landscape to embed at-homeness. The purpose of this study was to innovate a process of identified tourist attraction management based environmental education in a provincial community by multi-method research design. The research results indicated that the innovation regarding the process of identified tourist attraction management based environmental education was mainly comprised of five factors including (1) Sustainable Tourism, (2) Identification of Tourist Attractions, (3) Occupational Promotion, (4) Environmental Actualization, and (5) Environmental Participatory Management. The output appeared highly environmental literacy and the outcome reached tourist impressions that impact to community income and sustainable environments.

Keywords: *Environmental Education, Sustainable Tourism, Tourist Attraction Management, Identification*

INTRODUCTION

Tourism is a principle of labor industry and experience of people. It is important labor source of all occupations, which has affected to the socio-economics among local, national, regional, and global levels. According to the statistics of World Travel and Tourism Council (WTTC) (2017) presented that in 2016, the income of world tourism was \$ 7.60 trillion which is 10.20% of gross domestic product (GDP). This GDP has affected direct impact on the GDP world by 3.10% (expected to increase to 3.80% in 2017) that it will help to have new jobs about 6 million and the total position in the world of travel sector in 2016 that is about 292 million. In addition, its positions are expected to increase to 298 million in 2017 and it is increased to 382 million in the next 10 years (2027). In 2015, tourism industry in Thailand has imported about 1.45 trillion baht for foreign currency and contributed to the Tourism Gross Domestic Product (TGDP) by 16.53% of GDP and 4.2 million of workers by 10.80% of employment (Department of Tourism, 2015a). However, Department of Tourism (2015b) indicated that tourism revenue presently falls mostly to only big and middle scales of business. While those local tourism attractions cannot get much benefits, but the negative impacts or environmental degradation have been found

¹ Doctor of Philosophy Program in Environmental Education, Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, Nakhon Pathom, Thailand 73170
Corresponding author

² Director of Ph.D. Program in Environmental Education, Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, Nakhon Pathom, Thailand 73170

³ Head of Education Department, Faculty of Social Sciences and Humanities, Mahidol University, Nakhon Pathom, Thailand 73170

⁴ Department of Social Sciences, Faculty of Social Sciences and Humanities, Mahidol University, Nakhon Pathom, Thailand 73170

mostly in local area (Satarat, 2010). Moreover, province is the most effective level of political unit management because its boundary is geographically determined to contain outstandingly both natural and cultural environments, covers many districts and communities, and being the connected point of central and local governments (Office of the National Economics and Social Development Board, 2017). This is why provincial management of identified tourist attractions is assumed effectively to be the strategy promoting sustainable tourism which is not only for environmental sustainability, but also tourist satisfaction, and local income (Murphy, 2004).

“Sustainable Tourism” is expected mainly even to prevent environmental degradation; particularly, ecological balance and various values (Channuwong et al., 2024; Rutty et al., 2015), concerning tourist satisfaction, community income, and healthy environment (Hall et al., 2015; Wongmajarapinya et al., 2024; Wongsutthirat et al., 2024), together with increasing the security of tourism sources (UNWTO, 1988 cited in UNESCO & UNEP, 2008). Nowadays, the paradigm of tourism consumption has been changed; most tourists begin to find authenticity for their intrinsic add values, perceptions, and collective experiences. This is the reason why “Identified Tourist Attractions” are found to serve deeply the local people appropriated and take care sustainably their communities as tourism hosts and the tourists also reach their satisfactions and memorize the symbolic meanings of landscape with sense of belongings or at-homeness impression (CLAVÉ, 2010; Tourism Authority of Thailand, 2016). However, the main factor to achieve sustainability is to make people reaching the environmental actualization before joining the participatory management in identified tourist attractions. Moreover, “Identified Tourist Attraction Management” is the balancing between public benefits and environmental conservation with 6 basic factors as tourist attraction, facility, tourist satisfaction, security, marketing and tourist management (Division of Tourism Services Development, 2016). The tourist attractions representing their ancient heritages, cultural, geographical or some other identifications and identified characteristics to tourist perception, shared experiences, and environmental conservation for sustainable existing (Pitchford, 2008), and there are 6 factors for sustainable management of identified tourist attractions, namely: vision and goal, planning, implementation, evaluation, brand of identity tourism, and community education support (André, 2011).

“Environmental Education: EE” is needed because it is the educational process emphasizing to human development caring holistically the environmental values by reaching environmental awareness, attitude, knowledge, skill, participation, and ability to evaluation specified in 1976 by the Operational Conference on Environmental Education in Belgrade, Yugoslavia (UNESCO-UNEP, 1976), and responding to “Education for Sustainable Development: ESD” and “Sustainable Development Goals: SDGs” (United Nations, 1992, 2015; Ministry of Foreign Affairs of the Kingdom of Thailand, 2018). Thus, environmental education is considered the process to educate people reaching the environmental literacy by providing systematic knowledge to develop both internal and external behaviors before joining the participatory management to improve quality of life and environment (Palmer, 1998; Thathonga & Leopenwongb, 2014).

Therefore, the research questions were what the management process, its components and relationship of identified tourist attraction are to be satisfying the tourists, increasing the local income, and caring the sustainable environment.

Research Objective

The purpose of this study was to innovate a process of identified tourist attraction management based environmental education in a provincial community.

Research Conceptual Framework

It is significantly based on environmental study, environmental education, and environmental management, which are the integrated concepts of System Theory: input, process, output, outcome, and impacts (Bertalanffy, 1968), Systematic Science of Environmental Education (Rawang, 2009), Strategic Management: philosophy, vision, strategies, and practical projects (Murphy, 2004; Robbins & Coulter, 2012), and Kirkpatrick's Evaluation Model: satisfaction, learning, behaviors, and results (Kirkpatrick, 2006).

RESEARCH METHODOLOGY

Research Design

Multi-method research design including survey research, in-depth interview, small group discussion, research and development, and quasi-experimental research was used with 3 stages of the research as the following:

1. Research before Designing the Innovation: The objective was to study the identified tourist attractions, their managements, current situations of environment, and environmental learning. It covered 4 steps including: step (1) Searching the identified tourist attractions, step (2) Studying the current situations of environment, step (3) Assessing the environmental education learning, and step (4) Analyzing the competence of identified tourist attractions.

2. Research for Designing the Innovation: The objective is to synthesize the model of identified tourist attraction management based environmental education by research and development (R&D). These was just one step for this phase; it was step (5) Synthesizing the environmental education innovation.

3. Research after Designing the Innovation: The objective was to confirm the innovation quality and efficiency or practical ability in the real context. It covered 2 steps including: step (6) Evaluating the innovation quality both content and construct validity to consistent with system theory, strategic management, and the 4 levels of Kirkpatrick's evaluation model with 3 experts by index of item objective congruence (IOC), and step (7) Evaluating the innovation efficiency by quasi-experimental research with 32 volunteers.

Scope and Location of the Research

The contents mainly focused to management process of identified tourist attractions, to serve holistically sustainable tourism caring not only tourist satisfaction, and community income, but also environmental sustainability in the sight of local people as tourism hosts and tourists as visitors in Chaiyaphum province where is in the northeastern part of Thailand.

Population, Sample Size and Sampling

The population contained people, tourists, local leaders, together with internal and external experts. The samples were 300 people selected by multi-stage sampling: simple random and proportion, 100 tourists by accidental sampling, 18 local leaders by purposive sampling to represent those communities in 16 districts in Chaiyaphum province, 14 internal experts by purposive sampling in provincial, local authority, and community levels, 3 external experts who were supposed to confirm the quality of innovation, and 32 volunteers to confirm the efficiency of innovation by voluntary method.

Research Instruments and Statistics

Questionnaire, structured interview form, and record of small group discussion were used for collecting the data related to current situations of environment, competences, methods of identified tourist attraction management, and environmental learning from local people

and tourists. The innovation quality evaluation form was used for inspecting the content and construct validity of innovation before applying actually to educate those local people in a community. While the innovation efficiency evaluation form was available for evaluating satisfaction, learning (attitude, knowledge, and skill), behaviors, and public benefits as mentioned in 4 steps of Kirkpatrick's evaluation model, and the quantitative data were analyzed by percentage (%), mean score (\bar{x}), standard deviation (S.D.), weight mean score (WMS), t-test, and index of item objective congruence (IOC), while the qualitative data were presented by content analysis and descriptive writing, together with Research Ethics Approval No. 2016/141.1204 Certificate of Mahidol University Social Sciences Institutional Review Board (MU-SSIRB).

RESULTS

Personal Information

The informants for environmental study before designing the innovation were 300 people, 100 tourists, 18 local leaders, and 14 local experts. The people were mostly female (59.67%), 45.67 years of age in average, Buddhists (99.34%), graduated in secondary education or vocational certificate (41.67%), married (69.33%), agriculturalists (52.67%), with 7,230 baht for average monthly income, 25 years in average for living duration in a community, and receiving the tourism news by television (52.00%). While the tourists were mostly female (61.00%), 38.44 years of age in average, Buddhists (99.99%), graduated in bachelor degree (45.00%), single (57.00%), self-employed (52.00%), with 13,850 baht for average monthly income, receiving the tourism news by internet (63.00%), and 2 days visiting duration in a community.

Current Situations of Environment

1. Land use, solid waste, and soil pollution: There were various issues of soil pollutant such as (1) solid waste tends to be more severe because of people and tourists throwing their garbage somewhere with no responsibility, particularly the tourists in the national parks, (2) too much application of chemical substances in agriculture and some contaminating to water sources, (3) more land has been adopted strongly to serve just tourism such as food shops, resorts, and homestay, etc., (4) some public area is invaded for agricultural farming by local people, (5) soil degradation, and (6) problems about burning of agricultural residues, particularly during the period of sugarcane investment.

2. Water sources, drought, and water pollution: It could be concluded as (1) lack of water in hot season, and sometimes contaminated water in rivers or water ways, (2) more water sources are shallow because of erosion in rainy season, and (3) the problem about water draining system; particularly in the city area of municipality, etc.

3. Weather and air pollution: The weather is rather very nice all the year because of no any heavy industries. The average temperature is about 27 °C with no problems about forest fire and smog; there are sometimes smelling the chemical substances in agriculture, but just only a short time of spraying in a farm. Presently, there is a campaign to reduce smoke from funeral cremation in the temples, and riding a bicycle to work once a week on Wednesday to serve the policy of carbon footprint by the municipality.

4. Energy application and pollution: Chaiyaphum province is the productive source of alternative energy; not only solar farm but also wind farm.

5. Forest and biodiversity: The province is assumed to be one of fertility of forest and wildlife with 6 national parks, 3 wildlife sanctuaries, 2 arboretums, 1 non-hunting area, and 1 wetland.

6. Wildlife, economic plants, and domestic animals: It has had fertility of wildlife such as deer, muntjak, peacock, and squirrel, etc. Many households raises beef cattle as business, and it is on the process to promote beef cattle and the originality or birth place Ban Kai elephants being as the identification of Chaiyaphum province.

7. Cultural ways of life: It can be divided into 4 dimensions: concept, association, usage, and material cultures. In the location, the research findings revealed that (1) The concept culture is based on local belief to the great warrior of Chaopho Phraya Lae as the city founder and the first governor of Chaiyaphum city in the past, (2) Association culture is emphasized to traditional and occupational activities such as basketry group, agricultural groups, Thai silk production group, tourism service group, young tourist guide group, tie-dyed silk group, and handmade pillow group, etc., (3) Usage culture is emphasized to people's behaviors; particularly, related to local traditions, and (4) Material culture is found mostly in a form of local OTOP (One Tambon One Product) such as traditional Thai silk, local style sausage and fermented fish with herbs, basketry, herb products, and modified decorative plants, etc.

Self-assessment on Environmental Learning

Before designing the innovation, self-assessment of environmental learning was performed to check their levels of environmental awareness, attitude, knowledge, skill, participation, and ability to evaluation and found high levels of both local people (\bar{x} =8.04, S.D.=0.86) and tourists (\bar{x} =8.00, S.D.=0.86).

Identified Tourist Attractions

They were selected by people and tourists to represent the natural and cultural unique of provincial community with more details as the following:

Table 1 Opinions about the Identified Tourist Attractions

Items	People (%) (n=300)	Tourists (%) (n=100)
1. Agree to the selection of identified tourist attractions	92.66	68.00
2. The identified tourist attractions should be selected from those natural tourist attractions.	76.33	76.00
3. The Siam tulip fields should be identified tourist attraction of Chaiyaphum province.	50.67	61.00
4. The management concept of identified tourist attractions should be based on environmental sustainability.	61.00	61.00
5. Local impacts of tourism promotion		
- Degradation of environment	44.00	45.00
- More learning on various issues	43.00	36.00
- Increasing the local income	38.33	47.00
6. Development of tourist attractions is from everyone.	65.33	53.00

According to table 1, the research findings revealed that the informants both people (92.66%) and tourists (68.00%) agreed with the selection of identified tourist attractions from those natural and cultural tourist attractions (76.33% and 76.00%). About a half of people (50.67%) and tourists (61.00%) selected the Siam tulip fields for the provincial identified tourist attraction considered by environmental sustainability (61.00% and 61.00%). Both of two groups viewed that the local impacts of tourism promotion were firstly environmental degradation (44.00% and 45.00%), secondly more learning on various issues (43.00% and 36.00%), and increasing of local income (38.33% and 47.00%)

respectively. And they believed that the development of tourist attractions should be functioned by everyone (65.33% and 53.00%).

Competence Analysis of Identified Tourist Attractions

Both local people and tourists confirmed high level of identified tourist attraction competence, not only natural ($\bar{x}=7.27$, S.D.=1.46 and $\bar{x}=7.26$, S.D.=1.18), both also cultural competency ($\bar{x}=7.25$, S.D.=1.33 and $\bar{x}=7.21$, S.D.=1.35), and recreational competency ($\bar{x}=7.16$, S.D.=1.50 and $\bar{x}=7.20$, S.D.=1.41) as in table 2.

Table 2 Competence analysis of identified tourist attractions

Items	People (n=300)			Tourists (n=100)		
	\bar{x}	S.D.	Competence level	\bar{x}	S.D.	Competence level
1 Natural competence	7.27	1.46	high	7.26	1.18	high
2 Cultural competence	7.25	1.33	high	7.21	1.35	high
3 Recreational competence	7.16	1.50	high	7.20	1.41	high
Total average	7.23	1.43	High	7.22	1.31	High

The Innovative Process of Identified Tourist Attraction Management Based Environmental Education in a Provincial Community

The innovation objective is to train operationally those local people and all parties of stakeholder reaching the environmental literacy before participating the environmental management at identified tourist attractions. Therefore, it is comprised of 5 main factors including: (1) Sustainable Tourism, (2) Identified Tourist Attraction, (3) Occupational Promotion, (4) Environmental Actualization, and (5) Environmental Participatory Management.

Factor 1 Sustainable Tourism refers to the tourism responding to tourist satisfaction, economic income for local people, and quality of environment in a community which is under the philosophy “Chaiyaphum Identified Tourism” to reach the vision “Achieving the Tourist Impression with Community Income and Sustainable Environment” through 5 strategies including: sustainable tourism, identified tourist attraction, occupational promotion, environmental actualization, and environmental participatory management.

Factor 2 Identified Tourist Attraction refers to natural and cultural unique representing the outstanding identification of provincial, district, and community levels as mentioned below:

2.1 Provincial Level of Identified Tourist Attractions: The informants have presented 4 tourist attractions: 1 major and 3 minors, to serve the provincial level of identified tourist attractions. The major is Siam Tulip Fields and the minors are Tat Ton Waterfall, Chao Phor Phraya Lae Shrine (the city founder) and Mor Hin Khao (Stonehenge Thailand).

2.2 District Level of Identified Tourist Attractions: The informants have voted to select one highlight tourist attraction for one district. There are 16 districts in Chaiyaphum province, so 16 tourist attractions were selected to serve the district level of identified tourist attraction such as Khon Sawan district: the identified tourist attraction is the great Dharawadi Bhuddha image; Ban Khwao district: the identified tourist attraction is the Thai silk product; and Khon San district: the identified tourist attraction is the Phukhieo wildlife sanctuary; etc. (small group discussion of local leaders: April 21, 2017).

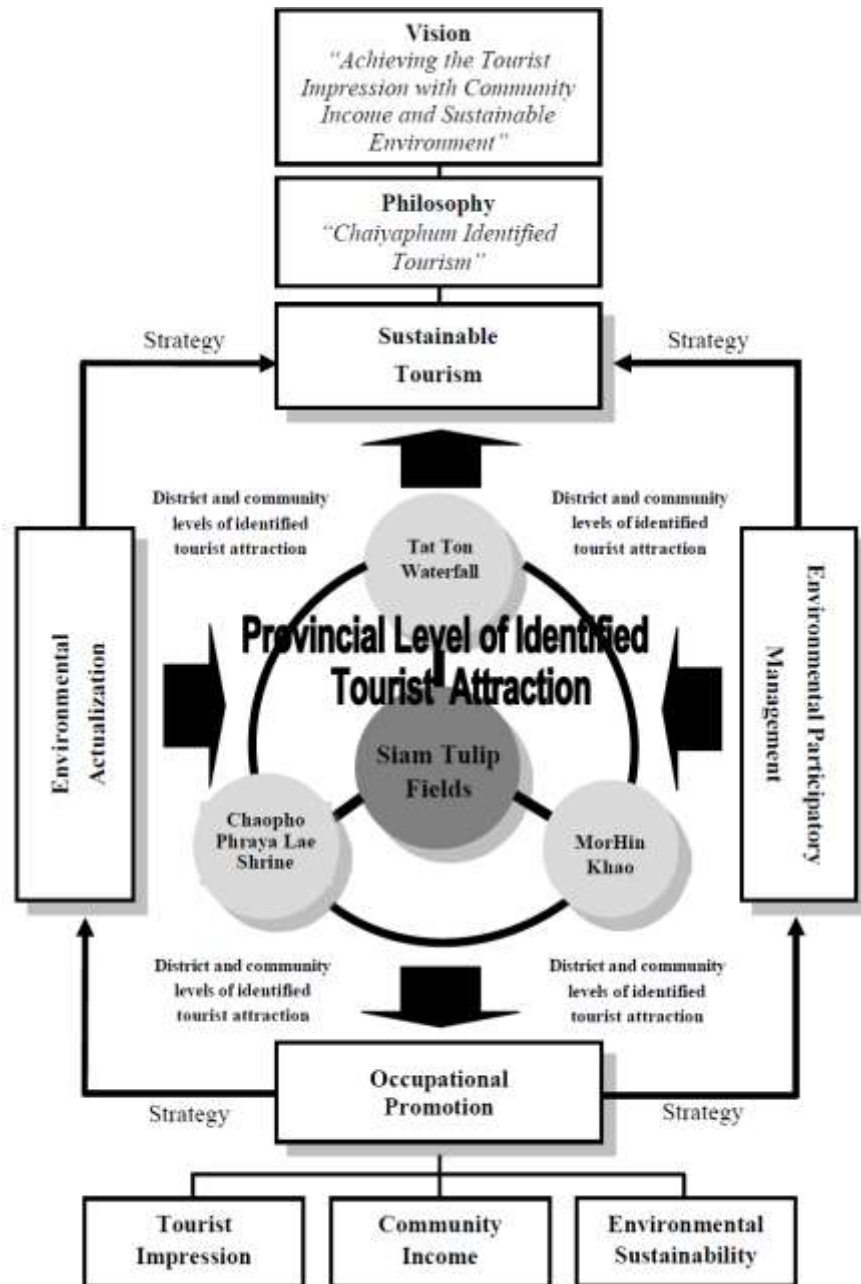


Figure 1: A Process of Identified Tourist Attraction Management Based Environmental Education in a Provincial Community

Source: Synthesizing from the research findings

2.3 Community Level of Identified Tourist Attractions: The informants have agreed to selected the identified tourist attractions to serve the community level by considering from the district slogans which is district has been already specified to present their identifications such as the communities in Khon Sawan district, its slogan is “Kalong Khon Sawan, Important Great Buddha Image, Mudmee Silk, Many Monkid and beautiful Kratip rice, Happiness people, many Flocks of Teal, and Cultural Beauty”. There are 6 identified tourist attractions could be abstracted by its slogan including: (1) Kalong Ancient City, (2) Great Dharawadi Bhuddha Image and Bai Sema at Khon Sawan temple, (3) Bung Waeng

or the wetland habitat of migrated teals, (4) Mudmee or local Thai silk, (5) Monkid or local style pillow, and (6) Kratip rice or local style basketry containers to preserve the steamed glutinous rice for consumption in daily life, etc. (small group discussion of local leaders: April 21, 2017)

Factor 3 Occupational Promotion refers to the encouragement of local people to get more income from their occupations with tourist impression and caring the environmental sustainability related directly and indirectly to the identified tourist attractions based on the concept of sustainable tourism.

Factor 4 Environmental Actualization refers to the provision of environmental education activities to make local people actualizing; particularly, environmental awareness, attitude, knowledge, skill, participation, and ability to evaluation before participating sustainably identified tourist attractions management by the concept of sustainable tourism.

Factor 5 Environmental Participatory Management refers to the responsible participation of local people on environmental management in identified tourist attractions. It will be responding to tourists' satisfaction, more income of local people, and quality of environment.

Innovation Quality Evaluation

Having finished designing the innovative process of identified tourist attraction management based environmental education, its quality was then evaluated to find out the content validity (Philosophy, Vision, Strategy, and Identified Tourist Attractions) and the construct validity (System Theory, Strategic Management, and Kirkpatrick's Evaluation Model) by 3 experts in environmental education, tourism management, and educational evaluation and accepting the innovation quality by IOC. The innovation was found high quality because its IOC score was 0.92 (content validity=0.90, and construct validity=0.93) which was over the standard scale at 0.50 (Rovinelli, R.J. & Hambleton, R.K., 1976).

Innovation Efficiency Evaluation

The innovation efficiency was later performed to check its practical ability by operational training 32 volunteers representing local people and tourists, conducted at Pa Hin Ngam National Park, Chaiyaphum Province. The innovation was located at very high efficiency because (1) the post-test score was higher than the pre-test score as in table 4, (2) the evaluation on personal behaviors and public benefits following the guideline of Kirkpatrick's evaluation model located at very high level, and (3) the participants have presented 10 projects to serve sustainable tourism.

Table 3 Comparison of environmental learning before and after observing the innovation

Items	Environmental Learning					
	Before			After		
	□	S.D.	Level	□	S.D.	Level
1. Awareness	8.16	0.81	high	9.14	0.80	very high
2. Attitude	8.22	0.82	very high	9.40	0.80	very high
3. Knowledge	8.56	0.81	very high	9.30	0.86	very high
4. Skill	7.60	0.98	high	9.10	1.10	very high
5. Participation	7.16	0.97	high	9.26	0.84	very high
6. Ability to evaluation	8.50	0.82	very high	9.16	0.92	very high
Total	8.03	0.86	High	9.22	0.88	Very high

According to table 3, the innovation was found very high efficiency because its post-test score (□=9.22, S.D.=0.88) was higher than pre-test score (□=8.03, S.D.=0.88).

Table 4 Efficiency evaluation of environmental education innovation by the guideline of Kirkpatrick’s evaluation model

Items	Efficiency Levels of Innovation		
	□	S.D.	Level
1. Satisfaction	9.08	0.97	very high
2. Learning	9.22	0.88	very high
3. Behavior	8.97	1.01	very high
4. Public benefits	9.09	0.99	very high
Total	9.09	0.96	Very high

According to table 4, the innovation was located at very high efficiency (□=9.09, S.D.=0.96). The first item of efficiency was the innovation promoting local people’s learning all parts of affective, cognitive, and psychomotor domains (□=9.22, S.D.=0.88). The second was to provide public benefits (□=9.09, S.D.=0.99). The third was to satisfy local people (□=9.08, S.D.=0.97). And the fourth was that it could change local people behaviors with more friendly to environment (□=8.97, S.D.=1.01) respectively.

Moreover, the participants who joined the activity of innovation efficiency evaluation have presented 10 projects to support sustainably the management of identified tourist attractions. They were (1) Tourist Attraction Landscaping Project, (2) Recycle Waste Back Home Project, (3) Homestay Village Project, (4) Organic Compost Project, (5) Young Camp for Environmental Conservation Project, (6) Fruit Juice Production for Health Project, (7) Artificial Flower Project (Siam Tulip), (8) Community Bamboo Planting Project, (9) Community Car Park Project, and (10) School for Homestay Project.

DISCUSSIONS AND CONCLUSIONS

The innovation was actually designed by asking mainly people as the hosts, and tourists as the visitors; therefore, there were some important issues to be discussed as follows:

The personal information of people and tourists presented some similar and different. The similarity was female (59.67%, 61.00%) and Buddhists (99.34%, 99.00%). The difference was age (45.67 years, 38.44 years), education (high school 41.67%, bachelor degree 45.00%), family status (married 69.33%, single 57.00%), occupation (agriculturalists 52.67%, self-employed 52.00%), monthly income (7,230 baht, 13,850 baht), channel to receive tourism news (television 52.00%, internet 63.00%), and living duration in a community (25 years, 2 days). This is accordance with Tourism Authority of Thailand (2016) saying that single living of woman tourists aged 35-44 years old always spend their time with friends, travelling, work hard, and play hard. And also the Department of Tourism (2016) has found that most tourists presently find their tourist attractions from internet and the places to visit are depended on the unique of tourist attractions.

The environmental problems were mostly related to soil degradation; particularly, solid waste, and chemical contamination both in soil and rivers. This is because most people in Chaiyaphum province are farmers and performed the economic agriculture by chemical applications (Choenkwan et al., 2014). (3) The environmental learning was found highly of both people (□=8.04, S.D.=0.86) and tourists (□=8.00, S.D.=0.86). This is because Chaiyaphum province is fulfilled with variety of natural and cultural tourism resources including: firstly, 6 national parks, 3 wildlife sanctuaries, 2 arboretums, 1 non-hunting area, and 1 wetland by the cabinet in August 1, 2000, and November 3, 2009 (Chaiyaphum Provincial Office of Natural Resources and Environment, 2017); secondly, the province is under the tourism promotion campaigned by the central government “Amazing Thailand Go Local” and “12 Months 7 Stars and 9 Highlights” which is the campaign presenting some special things or local identifications for special places to visit in each month during a year such as in July, observing the Siam Tulip Field in the mist mountain or in winter,

taking over night to count the stars at Mor Hin Khao or Stonehenge Thailand in Chaiyaphum province, etc.; and thirdly, there are some interesting route tours connected each other to serve the strategy of provincial cluster well-known as “Nakhon Chai Burin: Northeast Gateway to Global Communities” where they are 4 provinces of Nakhon Ratchasima, Chaiyaphum, Buri Ram, and Surin (Chaiyaphum Provincial Office of Tourism and Sports, 2017).

There are 5 components of identified tourist attraction management based environmental education in a provincial community: sustainable tourism; identified tourist attraction; environmental actualization, and environmental participatory management. Started firstly by training local people to learn basically about the concept of sustainable tourism and identified tourist attractions in a community, then increasing their income by occupational promotion which will be motivate them easily to join the environmental actualization building (Murphy, 2004; Wongpaibool et al., 2016), before providing the participatory management on environment to serve Sustainable Tourism and Sustainable Development Goal (SDGs) because participation is public power and consensus for community development (Johnson & Mappin, 2005; Kopnina, 2017). However, participation on environmental management will be more effective, if some activities of environmental actualization building are provided before managing the environment (Jumsai Na Ayudhya, 2003; Panprom et al., 2015).

By IOC, the innovation has been at high quality (IOC score=0.92: content validity=0.90, construct validity=0.93). This is because the quality of research instruments reflecting to validity, accreditation ability, consistence of the research topic, appropriated difficulty for target groups, and practical interpretation to the research objectives (Ongiem & Vichitvejpaisal, 2018), and (6) By actual performance, the innovation has been practically very high efficiency (\bar{x} =9.09, S.D.=0.96). This is because the innovation has been participated by local people and tourists since the first step of studying the environmental situations and self-assessment of environmental learning before designing the innovation (Brahmawong, 2013; Sirathanakul et al., 2023).

CONCLUSIONS

In conclusion, it can be said that the purpose of this study was to innovate the process of identified tourist attraction management based environmental education in a provincial community, which was caring not only tourists' satisfaction, but also increasing of local income and environmental sustainability. It was conducted by multi-method research design including survey research, in-depth interview, small group discussion, research and development, and quasi-experimental research. The data were collected from 300 people, 100 tourists, 18 local leaders, and 14 internal experts by questionnaire, structured interview form, and recording forms with being statistically analyzed by percentage (%), mean score (\bar{x}), standard deviation (S.D.), weight mean score (WMS), t-test, and IOC. The research findings revealed most people and tourists were female, 45.67 and 38.44 years of age in average for people and tourists, Buddhists, high school and bachelor degree, married and single, agriculturalists and self-employed, 7,230 and 13,850 baht for monthly income, and receiving the tourism news by television and internet respectively. The environmental problems were solid waste, chemical application in agriculture, public area invasion, soil degradation, drought, and contaminated water in rivers, etc. Both people (\bar{x} =8.04, S.D.=0.86) and tourists (\bar{x} =8.00, S.D.=0.86) presented high levels of environmental learning before designing the innovation. This is the reason why the innovative process needed 5 factors including: (1) Catching the concept of sustainable tourism; (2) Learning the identified tourist attraction in the provincial community; (3) Promoting the occupations to support the sustainable tourism; (4) Building the environmental actualization for both local people and tourists; and (5) Participating the environmental management. Moreover,

by IOC, the innovation validity was 0.92, and actually presented very high efficiency ($\alpha=9.09$, S.D.=0.96).

Recommendations

1. A process of identified tourist attraction management based environmental education will have been more effective if we start to make local people understanding firstly the identified tourist attractions in a community before learning the concept of sustainable tourism, then occupational promotion, environmental actualization, and lastly participating the environmental management, then generalized to some other communities, if it is possible.
2. Local people and all stakeholders related to sustainable tourism management should be ready to give tourists the information about identified tourist attractions not only in their own communities, but also in any community in a province.
3. Identified tourist attractions in each community should be empirically classified to support participatory management on environment, and tourism promotion.
4. The guideline about “Identified Tourist Attraction Management Based Environmental Education” could be brought to form a policy for Community Based Tourism (CBT) holistically serving tourist satisfaction, increase of local income, and environmental sustainability.

Acknowledgement

This research is a partial dissertation entitled on A Model of Identified Tourist Attraction Management Based Environmental Education in Chaiyaphum Province, Ph.D. Program in Environmental Education, Mahidol University, Thailand and it has been financially subsidized by Thesis Grant for Doctoral Degree Students in 2017, The National Research Council of Thailand (NRCT).

Contribution of this Research to the Society

The results of this study provide the guidelines to develop the process of identified tourist attraction management based environmental education in many regions of Thailand, which will bring not only tourists’ satisfaction, but also increase an income of the local people and improve environmental sustainability.

References

- André, M. (2011). Tourism and identity. Retrieved February 23, 2018 from <https://ideasforeurope.eu/activity/paper/tourism-and-identity/>
- Bertalanffy, L.V. (1968). General system theory: foundations, development, applications. New York: George Braziller.
- Brahmawong, C. (2013). Developmental Testing of Media and Instructional Package. [Abstract]. Silpakorn Educational Research Journal, 5(1), 7-20.
- Chaiyaphum Provincial Office of Natural Resources and Environment. (2017). Annual report in 2017. Retrieved May 18, from <http://chaiyaphum.mnre.go.th/th/information/list/257> [in Thai]
- Chaiyaphum Provincial Office of Tourism and Sports. (2017). Nakhon Chai Burin guide book. Nonthaburi: Leo Lanset.
- Channuwong, S. Chaetnaloa, P., Wongsutthirat, K., Weerachareonchai, P., & Pupapassiri, P. (2024). Good governance principles in Buddhism for business and politics administration. Migration Letters, 21(S1), 818-827.
- Clave, S.A. (2010). Identity and tourism: between image and perception. Paradigms, 5, 157-165.
- Choenkwan, S., Jefferson Metz Fox, and A. Terry Rambo. (2014). Agriculture in the mountains of northeastern Thailand: Current situation and prospects for development. Mountain Research and Development, 34(2), 95-106. doi: 10.1659/MRD-JOURNAL-D-13-00121.1.

- Department of Tourism, Ministry of Tourism and Sports. (2015a). Tourism receipts from international tourist arrivals. Retrieved April 10, 2018 from <http://www.tourism.go.th/assets/portals/1/files/Tourism%20Receipts%20from%20International%20Tourist%20Arrivals.pdf>
- Department of Tourism, Ministry of Tourism and Sports. (2015b). Attraction development plan 2015-2017. Retrieved April 1, 2018 from http://www.tourism.go.th/assets/portals/1/files/Attraction%20Plan_2015-2017_Final.pdf
- Department of Tourism, Ministry of Tourism and Sports. (2016). Report of Survey Research on Domestic Tourist Behavior Proportion in Thailand (January-December). Retrieved April 20, 2018 from <http://www.tourism.go.th/assets/portals/1/files/NorthEast%2004%20Profile%20Chaiyaphum%202014.pdf> [in Thai]
- Division of Tourism Services Development, Department of Tourism, Ministry of Tourism and Sports. (2016). Tourism Destination Management Standard. Retrieved May 2, 2018 from <http://www.tourism.go.th/assets/portals/2/news/914/1.PDF> [in Thai]
- Hall, C. M., Gössling, S., and Scott, D. (2015). *The Routledge Handbook of Tourism and Sustainability*. New York: Routledge.
- Johnson, E., Johnson, E.A. & Mappin, M.J. (2005). *Environmental education and advocacy: changing perspectives of ecology and education in environmental education*. UK: Cambridge University Press.
- Jumsai Na Ayudhya, A. (2003). *A development of the human values integrated instructional model based on intuitive learning concept*. Bangkok: Chulalongkorn University. ISBN 974-17-5482-5. 332p.
- Kirkpatrick, D.L. & Kirkpatrick, J.D. (2006). *Evaluating Training Programs: The Four Levels* (3rd ed.). CA: Berrett-Koehler Publishers.
- Kopnina, H. (2017). Teaching sustainable development goals in the Netherlands: a critical approach. *Environmental Education Research*. doi: 10.1080/13504622.2017.1303819.
- Ministry of Foreign Affairs of the Kingdom of Thailand. (2018). A practical approach toward sustainable development: Thailand's sufficiency economy philosophy. Retrieved May 10, 2018 from http://www.mfa.go.th/SEPforSDGs/APracticalApproachtowardSustainableDevelopment/A_Practical_Approach_toward_Sustainable_Development.pdf
- Murphy, P.E. & Murphy, A.E. (2004). *Strategic Management for Tourism Communities: Bridging the Gaps*. UK: Channel View Publications.
- Office of the National Economics and Social Development Board. (2017). *Summary of the Twelfth National Economic and Social Development Plan (2017-2021)*. Bangkok, Thailand: Office of the Prime Minister.
- Ongiem, A. & Vichitvejpaisal, P. (2018). Validation of the tests. *Thai J Anesthesiol*, 44(1), 36-42.
- Palmer, J.A. (1998). *Environmental education in the 21st century: Theory, practice, progress and promise*. London: Routledge.
- Panprom, T., Rawang, W., Supapongpichate, R., & Pichayapaiboon, P. (2015). A strategy of environmental education for participatory management in Tham Phet-Tham Thong forest park, Nakhon Sawan province. *Kasetsart Journal Social Science*, 36(2), 335-346.
- Pitchford, S. (2008). *Identity tourism: Imaging and imagining the nation*. Bingley, UK: Emerald.
- Rawang, W. (2009). *Systematic science of environmental education*. Manuscript in preparation, Ph.D. Program in Environmental Education, Department of Education, Faculty of Social Sciences and Humanities, Mahidol University.
- Robbins, S.P., & Coulter, M. (2012). *Management* (11th ed). New Jersey: Prentice Hall.
- Rovinelli, R.J. & Hambleton, R.K. (1976). On the Use of Content Specialists in the Assessment of Criterion-Referenced Test Item Validity. Retrieved May 20, 2018 from <https://files.eric.ed.gov/fulltext/ED121845.pdf>
- Rutty, M. Gössling, S. Scott, D. & Hall, C. M. (2015). *The global effects and impacts of tourism: The Routledge Handbook of Tourism and Sustainability*. London: Routledge.
- Satarat, N. (2010). *Sustainable development of community-based tourism in Thailand*. (Ph.D. Thesis). National Institute of Development Administration, School of Public Administration, Development Administration.
- Sirathanakul, K., Harnphanich, B., Channuwong, S., Bangbon, P., Niangchaem, L., & Sutthadaanantaphokin, K. (2023). The influence of human resource management on educational administration of Thai private universities. *Migration Letters*, 20(S1),

423-436.

- Thathonga, K. & Leopenwongb, S. (2014). The development of environmental education activities for forest resources conservation for the youth. *Social and Behavioral Sciences*, 116, 2266–2269. doi: 10.1016/j.sbspro.2014.01.557.
- Tourism Authority of Thailand. (2016). TAT Review Magazine: Localism and Staycation. *eTAT Journal*, 2(3), 20-27.
- UNESCO-UNEP. (1976). The Belgrade Charter: A global framework for environmental education, *Connect*, 1(1), 1-10.
- UNESCO & UNEP. (2008). Sustainable Tourism Development in UNESCO Designated Sites in South-Eastern Europe. Bonn: Germany.
- United Nations. (1992, June). Agenda 21. The United Nations Conference on Environment and Development. Rio de Janeiro, Brazil.
- United Nations. (2015, September). The 70th session of the United Nations General Assembly. Transforming our world: the 2030 Agenda for Sustainable Development. New York, USA.
- Wongpaibool, D., Rawang, W., Supamongpichate, R., & Pichayapibool, P. (2016). A process of environmental education communication through community cultural activity area. *International Journal of Environmental and Science Education*, 11(12), 5687-5697.
- Wongmajarapinya, K., Channuwong, S., & Pratoomsawat, T. (2024). The model of modern management influencing sustainable organization development of Thai Smile Bus Company Limited. *Migration Letters*, 21(S2), 385-399.
- Wongsutthirat, K., Channuwong, S., Channuwong, P., Weerachareonchai, P., Pupapassiri, P., Wongwean, B., Jedsadadilok, V., Snongtaweepon, T. (2024). Factors influencing organizational justice of public agencies in Thailand. *Journal of Research Administration*, 6(1), 2003-2011.
- World Travel & Tourism Council. (2017). *Travel & Tourism Economic Impact 2017 World*. London: WTTC.

Chaiyaphum Provincial Office of Natural Resources and Environment
Chaiyaphum Provincial Office of Natural Resources and Environment