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Ecopedagogy as an educational approach for vulnerable rural communities

Kaewta Muangasame^A

A

Tourism and Hospitality Management Division, Mahidol University International College, Thailand

Methawee Wongkit^B

B

Faculty of Commerce and Management, Prince of Songkla University, Trang Campus, Thailand

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Abstract

Designing a curriculum or teaching about the environment is another approach that helps solve environmental problems. Providing knowledge to the citizens of a country is the utmost goal in educational studies. Tourism is the fastest-growing industry in the world, creating serious environmental problems for our planet. It has been almost two decades since the concept of sustainable tourism was introduced to create awareness of tourism impacts, educate about ecological conservation, and change tourists' behaviour to become more responsible while enjoying tourism activities in the destinations (Global Sustainable Tourism Council, 2023). This study aims to examine the concept of environmental studies or ecopedagogy and how the Sapphaya community implements this concept in practice. Six steps were identified as effective learning experiences of ecopedagogy within the local community to develop sustainable tourism in Sapphaya. A qualitative approach was adopted from Participatory Action Research with three stages of the investigation. It included the initial stage of developing ideas and engagement over a three-month period, followed by stage two of skill development over the same period, and finally, the last phase over an eight-month period of continual assessment, which was the longest stage of knowledge generation and reflection via participation.

Correspondence

methawee.w@psu.ac.th^B

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Introduction

Since the industrial revolution, humans have been committed to conquering nature and exploiting natural resources. The evolution of science and technology, including the invention of several machines, was introduced to deliver a large volume of output to keep up with the expansion of the world's population (Department of Environmental Quality Promotion, 2012). Hence, today's world faces environmental problems that severely affect humanity directly and indirectly. Amongst the many crises that exhibit those approaching dangers to our planet are global warming, the destruction of the ozone layer, heavier storms and tornados, and longer drought seasons. In addition, the contamination of hazardous toxins in water, soil, and air from the activities of humans creates serious problems in several areas (Gough & Scott, 1999; Detyothin et al., 2017). The concept of environmental studies arose when global society became aware of those problems. The first time environmental studies were discussed in the world leadership forum in 1972 was at a United Nations (UN) conference on the human environment in Stockholm. The concept of sustainable development was proposed in Our Common Future Report in 1987, followed by the UN Conference on Environment and Development and the Earth Summit at Rio De Janeiro in 1992, where Agenda 21 was declared. Agenda 21 is a master plan to lead the world towards sustainable development in the 21st century. It is a comprehensive plan of action to be implemented at every level: from global to local levels (Department of Environmental Quality Promotion, 2012). In other words, this agenda was created to ensure the effectiveness of the organisations of the United Nations System, governments, and major groups in every area in which humans impact the environment (United Nations, 2023).

As environmental problems are critical for everyone, Detyothin et al. (2017) suggested that designing a curriculum or teaching about the environment is another approach that helps solve environmental problems. Providing knowledge to the citizens of a country is the utmost goal in educational studies as these people will have a better understanding of how important it is to preserve the environment and how they can improve the quality of the environment. In other words, creating awareness about environmental issues among the public is the priority. In Agenda 21, thus, education was discussed as a revolution because it linked the environment with socioeconomics and political problems and demanded responses to the issues (Kahn, 2010).

Tourism is the fastest-growing industry in the world, creating serious environmental problems for our planet. Admittedly, "the natural environment is crucial to the attractiveness of almost all travel destinations and recreation areas" (Farrell & Runyan, 1991, p. 26). It has been almost two decades since the concept of sustainable tourism was introduced to create awareness of tourism impacts, educate about ecological conservation, and change tourists' behaviour to become more responsible while enjoying tourism activities in the destinations (Global Sustainable Tourism Council, 2023). Many famous destinations, however, still suffer from the degradation of natural resources and the risk of extinction of plant and animal species due to the lack of sustainable

tourism education and training at every level: the employees and managers in the tourism and hospitality industry, the government officials in host countries, the potential tourists, the host communities, especially their children who may assume these or other roles in the future (Gough & Scott, 1999).

According to the UN's Agenda 2030, a roadmap to a sustainable world was emphasised and has been adopted by many higher education institutions. Recently, two environmental concepts have been proposed among scholars, namely: education for sustainable development (ESD) and ecopedagogy (Warlenius, 2022). Rieckmann (2018) argued that ESD is essential for sustainable development at the local and/or global levels. Nonetheless, Kahn (2008, p. 9) stated that ESD is just the latest education term and may only be a method for delivering and propagating scholar's ideas about sustainable development, rather than as a participatory and metacognitive method with learners about what sustainable development means. Ecopedagogy, in contrast, tends to be a more flexible method as it combines traditional knowledge transferring with a method for developing and engaging learners with sustainability issues (Warlenius, 2022).

Thailand is recognised as one of the world-class tourist destinations, especially the natural attractions are important tourism products. Although the background knowledge of sustainable tourism has been introduced for many years, several popular tourist destinations in this country still encounter numerous obstacles, such as an encroachment in the national park boundaries, an overcarrying capacity, an inefficient wastewater treatment, a littering problem, an ineffective waste separation, a lack of long-term planning to manage pollution problems, etc. Research developed by Patumrattanathan et al. (2014) revealed that the effective protection of natural resources requires the participation of local communities. Designing learning programs at an appropriate level for the local people and allowing them to engage and make decisions with the nature protection programs, together with support from the local government, can lead to successful sustainable development. Although the concept of ecopedagogy is an education for sustainable practices which seeks to alleviate the global ecological crises (Omiyefa et al., 2015), only a few tourism educators paid attention to this principle. Therefore, the authors would like to clarify why ecopedagogy is essential from a tourism development perspective and how this concept can be implemented in tourist destinations to enhance sustainability. Using Sappaya District as a case study, this research aims to explain why ecopedagogy was established and how this small community employs these concepts in its practices.

Literature review

The concept of ecopedagogy

Shoib et al. (2020) mentioned that both formal and informal education are significant in generating a response to the growing environmental crisis on Earth. Chen et al. (2022) also explained that education plays a vital role in shaping

the transformation of individuals and societies towards sustainability. The environmental crises call for reflection on human beings' relationship with their environment, not only on the social level but in the classrooms. Thus, "ecopedagogy is growing as a field, offering academic solutions to environmental issues" (Shoaib, Mubarak, and Khan, 2020, p. 148). The concept of ecopedagogy was first introduced in a Latin American education context by Paulo Freire. It emphasises an educational philosophy that explains the interrelationship between humanity and the Earth and formulates a mission for education universally to integrate an ecological ethic (Omiyefa et al., 2015; Warlenius, 2022). Misiaszek (2015, p. 280) asserted that "ecopedagogy is a critical approach to the teaching and learning of connections between environmental and social problems". Ecopedagogy combines the teaching philosophies of the essential pedagogy movement with the necessity of an environmental education dedicated to the current ecological crisis. As a result, the biggest challenge in designing educational programmes is how to enable individuals to understand the complexities of diverse societies. The goal of ecopedagogy is to promote transformative action by helping expose socio-environmental connections (Omiyefa et al., 2015; Misiaszek, 2015). While the concept of ecopedagogy proposed by some scholars (i.e. Bowers, 2004; Khan, 2010; Gadotti, 2011) was holistic and comprehensive, Payne's ecopedagogy was slightly different from other scholars as his research was related to an understanding of the body, time, and space experiences as a form of movement in different environments (Nakagawa, 2017).

Mostly, the relationship between the socio-environment and humanity tends to be delivered as a learning process in the classroom by developing the students to gain knowledge of the natural environment, the man-made environment, the environmental conservation and problems, and the attempt to create an appreciation of the environment; as well as having the skills to identify the issues and make decisions to find an alternative to solve problems appropriately, and to alleviate environmental issues that arise both at the individual, group and social levels in order to improve the quality of life and environmental quality to be sustainable (Detyothin et al., 2017; Sitthichock, 2016). However, Misiaszek (2015) argued that education should not be done in formal classrooms, but rather about how someone learns anything, including non-formal learning spaces and informal education tools such as the media. Therefore, within ecopedagogical learning spaces, instructors and learners must work together on environmental issues to better understand how it leads to ecological truth or falsities.

The context of ecopedagogy in the tourism industry

Although tourism is recognised as an essential source of income, employment and wealth in many countries, its growth is simultaneously damaging the environment (Neto, 2003). Many previous studies tended to focus on the aspects of tourism impacts (Eslami et al., 2019), ecotourism (Gough & Scott, 1999; Diamantis, 2010), or sustainable tourism (Eslami et al., 2019; Han, 2021; Høyer, 2000), but only a few of them touched on the context of ecopedagogy. A study conducted by Shoaib et al. (2020) using a fiction-based approach

revealed the results regarding the ethics of tourism and the negative impacts of tourism activities, such as the financial benefits from unplanned tourism, the restriction on using the same facilities with the tourists, the overflow of tourists in the fragile natural setting, or the plastic waste. Although this study mainly analysed the contents from Khan's *Thinner than skin* novel, it still exhibited ecopedagogical lessons on protecting the environment of northern Pakistan and the people who live in this place. Cater and Goodall (1992), Johnson (1998), and Gough & Scott (1999) were perhaps the early scholar groups who mentioned that education and training are vital to the success of sustainable tourism. However, the relationship between individuals and societies towards sustainability was not clarified.

Many previous studies pointed out that tourism could benefit local communities. Still, it also affected the host community by creating negative socio-cultural, economic and environmental impacts (Eslami et al., 2019). A study by Razzaq et al. (2012) highlighted that human resource development is an essential component that needs to be focused. The local communities should obtain knowledge, skills, and awareness to enable them to enhance tourism development in their origin regions. In addition, these three factors were recommended to build through informal learning. Chen et al. (2022) explained that pedagogy and learning environment were important. Research by Lugg (2007) also confirmed that educational experiences in outdoor contexts could be significant in developing environmental sensitivity and knowledge. This knowledge and attitudes were components of ecological and sustainability literacy. In terms of providing an education to tourists, Walter (2009) demonstrated that an informal curriculum that included local knowledge, environmental conservation effects, the tide and marine ecosystems, local culture, and the activities of local people could build substantial benefits to environmental conservation.

In short, all tourism stakeholders should address the environmental problems arising from tourism activities. Since each of these groups is likely to have a different perspective on environmental awareness, educators and trainers must consider this factor to provide different levels of training to these heterogeneous learners (Gough & Schooutt, 1999). This knowledge should not only be taught in the classrooms. Instead, it should be taught with an approach that engages the learners in the learning process, which can be hands-on and experiential. This approach can increase their attention and motivate them to reach a high level of critical thinking (Shoaib et al., 2020; University of Washington, 2023).

Case study area profile: Sapphaya

This study selected Sapphaya as a case study of how the community developed their tourism destination. According to Sapphaya.org (2022), the Sapphaya Old Police Station Market Community is located in Sapphaya District, Chainat Province. It is two hours from Bangkok and is known as a second-tier destination. Sapphaya boasts a strong community with multicultural capital and is a historical landmark. In the past, the community was prosperous. Their lifestyle was associated with the Chao Phraya River

for the everyday use and livelihood of locals, agricultural and fisheries occupation, water transportation by boat, and as a commercial centre of the district. Later, when the government constructed the Chao Phraya Dam, the Asia Road was built to cut through Sapphaya District. This road caused physical changes in societal ways of living, with people travelling by car more. Therefore, the city became a more sluggish commercial economy and came to be regarded as a 'commuting city' used for passing through other towns. The people in the community are mostly elderly. Children and young people leave for main cities such as Bangkok or Nakhon Sawan to study. When they grow up, they are more likely to abandon their homeland and earn a living elsewhere. The community's bonding and historical roots awareness were likely to be no longer valued. There are four main issues to be highlighted, including physical changes in a society that cause people in the community to abandon their homeland. There is no connection to the community and no recognition of the history of the roots of the community. People in the community are experiencing sluggish economic conditions. Archaeological sites, religious sites, and the community's old architecture deteriorated, and the community's customs and traditions faded.

Methods

Research context

The local government of the Sapphaya municipality has recently initiated ideas to develop Sapphaya as a tourism destination in collaboration with the local community, but this process is in the very early stages of development. For example, historical experts have already created the 'Sapphaya Study' text for local schools. Several architects keen on preserving the local heritage have completed the renovation of the oldest police station in Thailand, which dates back to 1903. However, the development of a tourism plan is at an early stage, along with the local community's capacity building, which will be detailed in the next section. The authors of this study were invited to consult on this project and advise on tourism planning and destination management and decided to undertake a local engagement approach using Participatory Action Research (PAR). The project has progressively implemented different stages of action, such as tourism planning, destination branding, sustainable tourism workshops, and teambuilding. This paper reports on this process and the progress to date on this initiative.

Research design and data collection: Participatory Action Research and sustainable development framework

Figure 1 shows the research design mechanism of the holistic planning and process of PAR adopted from Kemmis and McTaggart (2005) and Kindon et al. (2007). Action research involves a group of people in the subject matter to learn by doing. It enables group members to inquire, resolve and evaluate their efforts and progress. Gilmore, Krantz, and Ramirez (1986) highlight the feature of the action research method as follow:

Action research... aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system... thus it stresses the importance of co-learning as a primary aspect of the research process (p. 161).

Action research is based on a qualitative approach and has been utilised in a number of research fields, including education and organisational development studies (Zuber-Skerrit, 1996). This method requires an action researcher and a group of people (e.g., community organisations) who experience the same problem, aiming to resolve or change their society (MacDonald, 2012). The researcher's role is vital in designing and refining methodological tools to enable people to act, collect, analyse and present data. As the action research approach is more holistic to problem-solving, various data of a qualitative nature are often utilised.

Participatory action research (PAR) emphasises both participation and action, and several studies have adopted this approach with a focus on community development, social change and observing and facilitating collaboration between stakeholders (Capriello, 2012; Green et al., 2013; Jennings, 2010; Kemmis & McTaggart, 2000; Pathumporn & Nakapaksin, 2015). This approach has been explained by Attwood (1997):

people have a right to determine their own development and recognises the need for local people to participate meaningfully in the process of analysing their own solutions, over which they have (or share, as some would argue) power and control, in order to lead to sustainable development. (p.2)

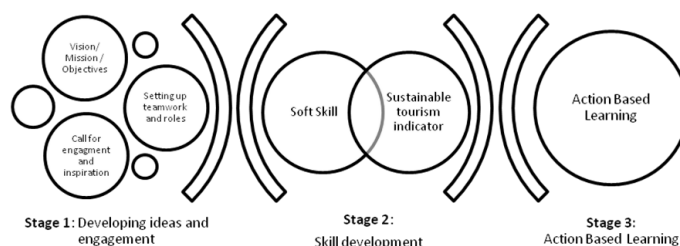


Figure 1. Research design. Adopted from the PAR model by Kemmis & McTaggart, 2005 and Kindon et al., 2007.

The PAR model generally has three cycles: planning, action and observation, and reflection. Still, the cycle variations depend on the research context and design. Combining the researchers' experiences of the current study and modification of the existing models of Kemmis and McTaggart (2005) and Kindon et al. (2007), this study adopted three stages of investigation identified in Figure 1. These included the initial stage of developing ideas and engagement over a three-month period, followed by stage two of skill development over the same period, and finally, the last phase over an eight-month period of continual

assessment, the longest stage of knowledge generation and reflection via participation.

In stage one, a stakeholder analysis, including the community members, was conducted to determine the local identity and development direction. This initial analysis of the community and stakeholders helped identify community capacity, a precondition for further activities (Moscardo, 2008) and planning for stakeholder collaboration. The project utilised a community-based tourism approach where the local community association of Sapphaya was established from the outset to ensure community involvement at every stage of tourism development. Also, and more importantly, project objectives were formed in line with the community's vision and goals to help develop tourism. The local community was divided into several groups where roles and responsibilities were articulated, enabling all members to actively collaborate by understanding each group's skills and resources and how they could be utilised. After several workshops and meetings with the local community and stakeholders, it was decided to develop the green market concept as the main tourism project, which prioritised sustainable tourism practices on a small scale.

Stage two involved 15 tourism-related workshops with approximately 20-30 participants in each group. They included representatives from all areas of the community, most notably the leader of the Sapphaya Old Police Station, representatives from the Green Market community association and the Green Market committees, community group members and a number of managers and operational team members from local government. The local government authority members were trained at the same time to be mentors in order to support the community. They became key players in the Green Market regarding initial funding, raising market awareness, seeking sponsorships, arranging venues and participating in Green Market activities. They were also responsible for connecting disparate stakeholders such as local schools, the local dance club, eco-friendly vendors, and young entrepreneur clubs to support the market.

Stage three is referred to as action-based learning, where participants and organisers are able to take action. The authors of this paper also played the role of researchers. They prepared a monthly summary report to ensure the community and local authorities were updated on their performance. Community participation was recorded from February 2020 to May 2021. The local municipality completed the summary meeting reports as part of the secretary's role. In addition, local community members were encouraged to voice and demonstrate their achievements. One of the authors served as a facilitator in meetings and focus groups to raise issues, seek out participant opinions and modify action plans per the selected sustainable tourism indicators set at stage two. Overall, the significance of PAR to ecopedagogy was paid attention to in identifying stakeholder involvement with their knowledge experiences. This supported Lugg's (2007) highlighting that educational experiences in outdoor contexts could be significant in developing environmental sensitivity, knowledge and attitudes to develop the components of ecological and sustainability literacy.

Findings and discussion

This study aims to examine the concept of environmental studies or ecopedagogy and how the Sapphaya community implements this concept in practice. The study finds six steps to identifying effective learning experiences of ecopedagogy within the local community in Sapphaya. The steps are as follows:

1. Building the relationship between trainers and learners

In this process, Sapphaya Old Market Revival Club worked with the Sapphaya Municipality to organise congregation meetings – engaging local gurus, community leaders, and stakeholders to find problems and solutions. The various bodies also worked with one another to repair, renovate, and restore archaeological and religious sites, architecture, traditions, and culture in the community. Secondly, a working group was appointed, consisting of representatives from the community, groups/organisations, schools, and the public and private sectors. Lastly, a project proposal was prepared to engage with various agencies for in-kind support and budget allocation. Importantly, the relationship between trainers and learners was built to improve learning experiences. Community-based projects are growing in popularity in education programmes across the world (McCormack and O'Flaherty, 2010, Mitton-Kukner et al., 2010). The more trainers built familiarity and showed sincerity in giving the message, the more learners trusted them and were willing to change attitudes and attempt to do something new. Building the relationship between trainers and learners is essential to promoting long-term sustainable development.

2. Finding a committed leader

The leader is a key driver in each local community. A leader with a strong commitment is a fundamental requirement in developing the green market for sustainable tourism development under the supervision of the local community and the local municipality. A leader has significant qualities, including a positive attitude, vision, communication skills, open-mindedness, creativity, a strong connection, and a willingness to improve their community.

3. Developing good skills through training programmes

To develop good skills and basic knowledge in the community by searching for historical databases, training sessions with varied experts, such as historical experts, should be provided. Training sessions were done to teach about local

communities' history, raise awareness of 'love for the hometown', and organise workshops for community participation. Sustainable tourism experts also helped to give information on how to run a community-based tourism approach, which the local community requires to develop good practices in welcoming guests to their destination.

In addition, the most effective approach that was considered to apply in ecopedagogy is that the local community had a field trip to exchange ideas with other communities, to trigger ideas, and to create inspiration within its team. After several field trips and workshops with experts, the first curriculum, "Sapphaya local historical study", was initiated for local schools, from kindergarten to high school. The young local interpreter club was also established to encourage the new generation to tell stories of their hometown. These included narrations about Wat Sapphaya, the Old Police Station – 121 years, stories of the Buddha statue in the coffin, and Ramayana stories related to the Sapphaya mountain, which became the logo of community-based tourism development. Ranson (2000) pointed out that the voice of the young is the distinctive capability schools should encourage young people to acquire to become active citizens.

4. Learning by doing approach – organising events and dividing roles and responsibilities

Stakeholder participation at this stage was the most significant since it facilitated meaningful reflectivity and learning-by-doing (Kindon et al., 2007). Sapphaya Green Market is a learning space for ecopedagogy and sustainable tourism development. All community members learn eco-friendly practices and skills related to planning and organising events, marketing (including branding, local identity, and responsible marketing), teamwork, and green design. During their learning experiences, there are many more opportunities to learn and make mistakes. The advantage of working with the local community is that community members never stop trying new things and trust the experts if they find the information beneficial. As seen in Figure 2, the green market involved several tourism stakeholders in different roles, such as performers, event organisers, vendors, eco-exhibitors, stage teams, and interpreters, to deliver the key message of the green market and heritage stories in Sapphaya. Importantly, a local audit team was established to monitor the green practices in the event. In the monthly meeting, the audit team informed committees and sustainable tourism experts of the green practice performance to provide improvement solutions. Building learning spheres is also essential to make everyone learn and gain while establishing

the green market together. Moreover, building pride in one's hometown and putting effort into establishing the green market are also part of the success.



Figure 2. Activities at the Sapphaya Green Market (photos taken by the authors).

5. Adopting communication techniques

There are several communication techniques to be addressed among tourism stakeholders. For example, the Sapphaya Old Market Revival Club joined the local municipality and local schools to prepare Sapphaya storytelling schemes, including an interpretation guidebook, a website, signages, and tourist attraction maps. The main objective was to encourage local schools and people to pay more attention to meaningful local history and tangible cultural heritages in their community. Local schools created fun activities such as excursions and tour-guiding workshops related to community learning resources. For internal communication, social media channels such as Facebook and Line are effective channels for sharing and communicating before the monthly meeting. The local community leaders and local municipality team are required to establish the communication channels, consistently deliver the key messages, and continue sharing team performance results. They must also provide updated information, including the training programme invitation, to build strong motivation and communication skills among team members.

6. Tracking the data using sustainable tourism criteria for best practices

Tracking the performance using sustainable tourism criteria adapted from the agreed selections of the local community members was implemented. Repeating the objectives with

these indicators is essential to ensure consistent, desired outcomes. Community members were introduced to practices that helped to monitor their achievements. The sustainable tourism concept was presented and discussed at the beginning of establishing the community-based tourism objectives to ensure that the community continually focused on acting in line with sustainable tourism best practices at the national level. The sustainable tourism indicators were selected to monitor and improve team performance to meet the goals. It is crucial to identify the needs and conditions of community members and give them advice with casual, low-pressure discussions. The reflective workshops were set up to be informal and active learning sessions. Being aware that there is a generation gap with the conditions of time management, the capability of accepting knowledge and skills is essential. These are key elements that mentors need to take into consideration when conducting the community-based tourism (CBT) event. Muangasame and Tan (2022) highlighted that Green Market Community Cooperative and Sapphaya community-based events initiated good practices for local communities to learn by doing, allowing them to work as a team, build confidence and improve their soft skills to develop the award-winning "Sapphaya Model",

Conclusion

The goal of ecopedagogy is to become the main driver of sustainable development with local community engagement. Trainers should adapt themselves to understand the needs and conditions of learners – in this case, local community members who have less time, limited education, and are economy-driven – showing that learning experiences with the right attitudes and the same goals are essential for ecopedagogy. This study agrees with Misiasek (2015) that learners should spend time outside the classrooms with non-formal learning spaces. Trainers and learners should be able to work together on environmental issues to understand local community learning spaces better.

Local communities should obtain knowledge, skills, and awareness to enhance tourism development in their origin regions. In addition, these three factors were recommended to build through informal learning. Chen et al. (2022) explain that pedagogy and a learning environment are important. Research by Lugg (2007) also confirms that educational experiences in outdoor contexts could be significant in developing environmental sensitivity and knowledge. This knowledge and attitudes were components of ecological and sustainability literacy. However, there are limitations acknowledged in this research due to its focus on one case study and its use of tourism as a best practice of ecopedagogy learning spaces. The green market was organised for learning by doing approach. Nonetheless, there are further research areas for ecopedagogy, and future empirical research should test the framework proposed.

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