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The Use of Outdoor Environmental Education in Educating for Sustainability: A Study for Primary Schools in HongKong

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Abstract: According to the United Nations Sustainable Development Goal 4.7, by 2030, ensure that all learners acquire the knowledge and skills needed for sustainable development, including through quality education for sustainable development and sustainable lifestyles. The rise and development of Outdoor Environmental Education (OEE) adds to the vitality of Education for Sustainability (EFS). Of all student groups, elementary school students are in the early stages of consciousness and value formation, a typical period for learning about OEE and EFS. By examining a large body of literature, this study provides an in-depth overview of the relationship between OEE and EFS, as well as the overall situation of OEE development in Hong Kong elementary school, and makes recommendations on the existing dilemmas. The study aims to provide an overall example for future research.

Keywords: Outdoor Environmental Education; Education for Sustainability; HongKong; Primary Schools; Literature Analysis

1. Introduction

This study will examine the history of EFS and OEE, the overall use of OEE in EFS in elementary school in Hong Kong, and the recommendations that can be made in this regard. By exploring the literature in the above areas, it will be of great significance to this study. Indeed, the value of examining the above areas of literature is to provide a meaningful analysis of the application of OEE in EFS and to provide an overall overview of the application of OEE in elementary school in Hong Kong in order to explore its strengths and weaknesses and to pave the way for arriving at the roles, functions, and impacts of OEE in EFS.

2. Definition, history and development of EFS and OEE

The first conference to discuss the theme of EFS was held in Tbilisi, Russia, in 1977. Ever since the Brundtland Commission Report in 1987, 'sustainable development' has been a key concept in debates on the environment. (Michael Bonnett, 2002). The concept of sustainable development came into focus and has increasingly gained attention at international, national, local, public and private levels. The concept of "sustainability" was more firmly and definitively established during the 1992 Earth Summit, the main outcome of which was the formulation of Agenda 21, which contains a series of recommendations and goals aimed at reversing the process of environmental degradation. In December 2002, the United Nations declared 2005-2014 as the United Nations Decade of Education for Sustainable Development, placing greater emphasis on the importance of education in promoting sustainable development in the world (Wals et al., 2014).

Further, in 2015, the United Nations General Assembly adopted 17 Sustainable Development Goals (SDGs) to be achieved by 2030. The quality education emphasized in SDGs 4 emphasize the important role of education in achieving sustainability and show the significance of EFS for environmental protection and sustainability of entire ecosystems.

Outdoor Education and OEE share common content and processes, but each has its own characteristics. While both are inherently interdisciplinary, the difference is that OE can be applied to any learning objective, whereas OEE, which can take place inside or outside of the classroom, typically focuses on the quality of water, air, and soil and the effects of our pollution on these media (Wei-Ta Fang, Arba'at Hassan & Ben A. LePage, 2022). OEE is an opportunity for students to interact directly with the environment in an outdoor location with a greater focus on environmental sustainability education.

3. Overall use of OEE in EFS in Hong Kong elementary school

According to Susanna Ho's (2014) delineation, outdoor education has three functions, namely socialization, qualification, and subjectivation. Socialization is the creation of a specific social order, qualification is the acquisition of certain outdoor skills, and subjectivation is the

development of critical and independent individuals. Together, these three functions describe the purpose of OEE. From these three purposes, this study will examine what can and should be achieved by applying OEE in EFS in Hong Kong elementary school.

OEE is said to be the best way to teach people especially small children about the environment because it is a self-learning education and learning through experience (Burriss & Burriss 2001). I believe it is very important to make the younger generation sensitive to the environment and develop their sense of responsibility towards the environment, and at the same time educate them to become critical thinkers who are able to look at problems systematically and holistically and find appropriate solutions, which is also the process of subjectification of OEE.

The Hong Kong Government is committed to encouraging environmental education in schools. As early as 1990, the Environmental Campaign Committee was established by the Hong Kong government to promote public awareness of environmental issues and encourage the public to contribute actively towards a better environment (Eric Po-Keung Tsang, John Chi-Kin Lee, 2014). For educating young children in school, the early governmental documents, 'Guidelines on Environmental Education in Schools' were published in 1994 and 1999 respectively by the Curriculum Development Institute and the Education Department of Hong Kong (Eva Yuen Yi Lo, 2010). In the late 1990s, Tung Chee-hwa, the then Chief Executive of the Hong Kong Special Administrative Region, advocated a change in the traditional teaching methods commonly used in Hong Kong schools. This shift emphasized a holistic approach to teaching and encouraged teachers to adopt interactive, experiential and innovative teaching methods. (Simon Beames, Andrew Brown, 2005).

In 2000, the Environmental Campaign Committee, the Environmental Protection Department and the Education Department jointly organized the Hong Kong Green School Award to promote holistic green management in primary and secondary schools. Schools are encouraged to develop and implement school environmental policies, promote whole-school environmental education and foster a green culture (EPD, 2002). Further, in 2002, the Curriculum Development Institute of the Education Department produced the "Teacher's Manual on Environmental Education in Primary Schools - Education for Sustainable Development", which aims to help teachers to design their own school-based curricula for EFS and to ensure that students are exposed to EFS at different stages of learning in primary education. (Environmental Protection Department, 2002). In my opinion, through the efforts of the Hong Kong government and these related environmental departments, the socialization of outdoor education is gradually playing a more important function, as a certain social order is established in the process.

Elementary school in Hong Kong run a wide variety of programs on OEE. The Kap School promotes OEE through extracurricular outdoor activities, such as building wind and solar powered cars, to help students understand the importance of sustainability. In Yuet School, the feature of this school is the outdoor space for planting activities and a herbal garden with the support of the Alumni Association, which plans to code plants for students to learn. In Ping School, some principals said they studied lichens with other students and participated in overseas visits (e.g., a visit to a green school in Mainland China) or local community activities (e.g., collecting garbage from the beach). Others used baskets to collect waste paper from classrooms for recycling and helped students collect and recycle aluminium cans and plastic bottles. (John Chi-Kin Lee, 2009). It can be seen that the practical OEE courses provided by these elementary school in Hong Kong help elementary school students learn outdoor skills such as waste recycling and planting flowers, which is a concrete manifestation of the qualification of OEE.

4. Recommendations for the application of OEE in EFS

Elementary school in Hong Kong have not all gained positive impacts in applying OEE to EFS, but also encountered many challenges and obstacles. First, there are challenges in terms of economics. With administrative, transportation, insurance, and other costs posing significant barriers to incorporating OEE into the program. Second, limited teaching resources are one of the biggest obstacles. Finally, safety is a major challenge.

In this regard, this study has some recommendations. First of all, in terms of economy, I suggest that elementary school in Hong Kong can participate in some OEE programs funded by the Ministry of Education. For example, the Ministry of Education's "Outdoor Education Camp" funding scheme, which provides up to 50% of the cost for young people to participate in a three- to five-day program at an outdoor center. (Beames, 2005).

Secondly, in terms of teaching and learning resources, based on the recommendations of the curriculum document (Curriculum Development Council), they suggested that the content of the teaching materials should be incorporated into the subject of "People and the Environment" among the six subjects of the Primary Three to Primary Six curriculum. As a lesson lasts only 35 minutes, teachers suggested that the use of time for pre-lesson topics needs to be carefully managed. (Winnie Wing Mui So, Stephen Cheuk Fai Chow, 2019).

Finally, in terms of security, when leading field trips and expeditions each program component (supervision, instruction, route planning and navigation, etc.), The Primary School in HongKong must be planned with safety in mind. For example, the Canadian Association for Health, Physical Education and Recreation's Safety Oriented Guidelines for Outdoor Leadership and Programming (Hanna, 1986) and the AEE's Safety Practices in Adventure Programming provide useful information in helping teachers design a risk management plan for their program (Priest and Dixon, 1991).

5. Conclusion

A study of the relevant OEE literature shows that the application of OEE to the EFS curriculum in Hong Kong elementary school is a complex process, which requires the concerted efforts of multiple stakeholders. Furthermore, there are some inevitable barriers and challenges in this application process, which means that there is still a lot of room for improvement and enhancement in this area. Thankfully, the socializing, qualifying and subjective functions of outdoor education are basically demonstrated and functioned in the OEE curriculum in Hong Kong elementary school.

I hope that the review and recommendations of this study will shed some light on OEE in elementary school in Hong Kong, and I also hope that subsequent studies will cover more of this area.

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