

# The enhancement path of outdoor environmental education: a case study of the education university of Hong Kong Jockey Club Primary School

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**Abstract:** Outdoor Environmental Education (OEE) is a branch of outdoor education and an important part of teaching and learning for sustainability education. It is a more holistic, experiential, interdisciplinary approach that is a powerful complement to classroom education. Strong government support for outdoor education in Hong Kong began in the late 1990s. According to the Hong Kong Education Department in 2004, more than 800 primary and secondary schools have utilized outdoor adventure activities to "nurture" their students. The Education University of Hong Kong Jockey Club Primary School is one of these elementary schools that conduct outdoor OEE programs, with activities such as workshops and visits to the Ocean Park, and trips to Hoi Ha Wan to experience the damage done to the ocean by plastic waste. Against these backgrounds and using Jockey Club Primary School as a typical case study, this study comprehensively and holistically explores the role and impact of outdoor education activities in sustainability through interviews with experts in the relevant fields.

**Key words:** outdoor environmental education; primary school; Hong Kong; enhancement path; case study; interview

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## 1 Introduction

The overall objective of this study is to examine the function of Outdoor Environmental Education (OEE) and its impact on Education for Sustainability (EFS) by analyzing the current situation of Hong Kong Jockey Club Primary School through experts in the field of sustainability. Corresponding improvements and future perspectives are proposed in this regard. This study focused on two categories of stakeholders who were interviewed to arrive at the findings. They were three professors, i.e. academic professors, in the Department of Sustainability and Environmental Sciences and three graduate students, i.e., researchers, who were enrolled in the Sustainability Education program. Data collection for this study was based on a case study to allow for real issues to be analyzed in a set context.

## 2 Origins and development of OEE and its Relationship with EFS

The literature noted the origins and development of OEE: the concept of outdoor education has a long history. Such activities have been recorded since the 17th century, and it is reasonable to assume that the world's indigenous peoples with thousands of years of oral history and culture are proof of the efficacy of outdoor education. Outdoor environmental education is a branch of environmental learning, involves direct contact with physical and biological phenomena in the

wilderness. It involves not only the "facts" of human interaction with nature, but also the need to care for the environment [1]. The relationship between OEE and EFS is that OEE is an important part of the EFS curriculum and one of the forms of teaching and learning in EFS.

According to research findings, with academic professor 1 stating that OEE is a tool, in which the concept of sustainability is shaped and developed through participation in this outdoor activity. And OEE can bring economic sustainability to an outdoor place, such as lodging, food, and so on. Academic professor 2 stated that OEE can provide students with an understanding of how to adapt and conserve old buildings and give them new functions to meet the needs of the community in order to achieve sustainability. Similarly, academic professor 3 stated that organizing students to participate in community environmental improvement projects can develop students' environmental awareness, social responsibility, and ability to act in a sustainable manner.

The main conclusion that can be drawn from the above is that OEE is an important part of EFS, and OEE can convey the concept of sustainability to students. I can also draw from the responses of the academic professors in the study results: OEE is not only related to the environment, but also shows a strong correlation with economy and society.

### **3 The use of OEE in primary schools in Hong Kong, taking Jockey Club Primary School as an example**

The literature points out that the OEE curriculum in Hong Kong is developed in a school-based format. Further, in 2002, the Curriculum Development Institute of the Education Bureau produced the *Teacher's Handbook on Environmental Education in Primary Schools - Education for Sustainable Development* [2]. Elementary schools in Hong Kong have developed a variety of curricula based on OEE. But elementary schools in Hong Kong have encountered many challenges in implementing the OEE program. OEE involves safety and insurance issues for students, as well as parental concerns about student safety. Limited teaching resources are also one of the biggest obstacles [3].

According to the findings of this study, experiential learning takes place in an authentic environment. This is what the leading professor wanted to achieve and learn. Jockey Club Elementary School in this case study focuses on this in particular. It emphasizes the cultivation of positive thinking, the development of value education, and the use of experiential learning for environmental protection education, such as allowing some 4th grade to 6th grade elementary school students to become environmental protection ambassadors and go to Hoi Ha Wan on a glass boat. However, according to this study, it was found that school willingness, student safety, climate, and transportation are the main barriers to OEE activities. Jockey Club Primary School also encountered similar problems. Because the Jockey Club Primary School is far away from the city center of Tai Po, it needs additional transportation support to accommodate students' participation in OEE courses, and the driving and parking arrangements of the Jockey Club Primary School are subject to the control measures of the traffic of the Hong Kong University of Education.

Therefore, in this section, my first conclusion is that while teachers conduct OEE programs with the aim of providing students with experiential learning in a real environment, Jockey Club Primary School is doing well by focusing on experiential learning for environmental education. My second conclusion based on the literature review and research findings is that school willingness, student safety, climate, and transportation are the main barriers to implementing OEE activities.

### **4 Functions and impacts of OEE in EFS**

Based on the academic professors' responses of this study, they were positive about OEE influencing students' awareness, which in turn shapes knowledge and behavior. For example, academic professor 1 stated that if students have an outdoor learning experience, it has gone beyond textbook knowledge. So there may be an opportunity for students to

take what they have learned in textbooks and match it with real action. Academic professor 2 told it like this, "The knowledge gained and the experience with the surroundings through observation, understanding and interaction with the environment will help to establish a connection between the individual and the environment, leading to reflection on the role of humans in nature. To further bring about long-term heightened and behavioral changes, OEE is an important factor in motivating students to care about and connect with their environment".

In addition, the findings section of this study points out the influence of the age factor on conducting OEE programs: combining the responses of the respondents, two academic professors and two researchers believed that the younger the age the better to conduct OEE programs, one researcher believed that it is more appropriate to start OEE in the fifth and sixth grades of elementary school, and one academic professor believed that OEE varies from person to person and from time to time in a student's education. Overall, respondents almost universally agreed that age has an impact on OEE, and the majority of respondents felt that the younger the age the better to start an OEE program. To summarize his/her opinion, the earlier the start time, the easier it is to develop good awareness, cognition, and values. Of course, the responses of academic professor 2 and researcher 1 also provided reference for the development of OEE program for this primary school students, i.e., teachers' different activity designs according to age and children's maturity and understanding of the world are also factors that need to be taken into consideration.

Therefore, in the impact section, the following two conclusions can be drawn. The first one is that OEE can influence students' awareness, which in turn shapes knowledge and behavior, but this requires a long-term development process. This then brings us to the second finding of this study, which is that respondents almost universally agreed that age has an impact on OEE, and the majority of respondents believed that the younger the age at which OEE programs begin, the better. This is because the earlier the training starts, the easier it is to develop good awareness, cognition, and values.

## **5 Recommendations for the improvement of OEE**

The findings of this study shed light on the barriers to conducting OEE. Based on interviewer responses, school willingness, student safety, climate, and transportation are the main barriers to conducting OEE activities. Jockey Club Primary School encountered similar problems.

Therefore, based on the recommendations of the academic professors and participant researchers, firstly, it is important to follow the government's recommended guidelines. Secondly, schools need to have a team, which can include teachers from multiple subjects such as geography, maths & languages. Don't go it alone, for it requires a lot of different expertise as help. Thirdly, elementary schools need success stories and examples to run OEE programs. With successful stories, more members of the teaching team will be attracted, and parents will be more convinced of the school and feel at ease to hand over their children to the school's OEE activities, and in turn, the school's OEE activities will do better and better as they continue to be publicized and promoted. Fourth, the preparation and design of the OEE program is an important step. A pre-operational site visit is necessary before implementation and safety issues should be considered and carefully addressed. Fifth, parents are encouraged to participate in outdoor environmental education activities with their children. This can drive students' parents to engage in EFS behaviors together, influencing students to develop the concept of sustainable development from the family social environment atmosphere.

Therefore, in the recommendations section, I have come up with one conclusion: government recommendations, teamwork, success stories and promotion, advance visits related to safety issues, and joint parent-child participation are enhanceable paths that can be used for Hong Kong elementary schools to apply OEE to EFS.

## **6 Conclusion**

The overall objective of this study is to examine the functioning of OEE and its impact on EFS by analyzing the current situation of OEE in Hong Kong Jockey Club Primary School. This paper has achieved these research objectives through extensive research on relevant literature and case studies. The main conclusions drawn from this study are that OEE can influence students' awareness to develop knowledge and behavior, which requires a long-term development process and that school willingness, student safety, climate, and transportation are the main barriers to OEE activities. Finally, this study advocates that government recommendations, teamwork, success stories and replication, advance visits involving safety issues and parent-child participation are enhanceable pathways that can be used by Hong Kong elementary schools to apply OEE to EFS.

### **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

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