

## Vietnamese Secondary School Swimming Pond Construction Project

### **Introduction**

In partnership with Faculty of Social Sciences, Department of Comparative Literature and World Vision Vietnam, Project Mingde have launched the same cohort of projects for the fifth year. With the support of Gallant Ho Experiential Learning Centre, 16 undergraduates (10 from Department of Civil Engineering, 5 from Faculty of Social Sciences and 1 from Department of Comparative Literature) participated in the project.

The project spanned over 7 weeks from early June 2019. Extensive internship training has been given to students for crossing the cultural boundaries. The programme can be roughly divided into three components: (1) Participation of construction of swimming pond; (2) Voluntary teaching; and (3) Need Assessment with local villages.

All three components are highly interdependent. The formulation of a multi-disciplinary team provides substantial understanding of the context and provides a chance for students from different disciplines to cooperate and stretch their potentials.

### **Construction of swimming pond**

As mentioned in Need Assessment of the previous cycle, a need of safe swimming facility in Trung Dung Commune has been identified. The construction project turned a natural pond into an artificial pond with enhanced safety and sanitation. Further swimming education will be provided in this facility. This project will be the centre of a sustainable solution of Child Drowning Prevention in the community. The swimming pond is part of a secondary school and operate by them in the future.

The construction project is located in Trung Dung Secondary School in Trung Dung commune. The project is based on a two-month contract from June to July. With the professional knowledge learnt in-class, the University's Engineering students put understandings into practice, playing a role as consultant for giving advice to World Vision and the school, whose roles act as client in real industry environment, on the matter of construction.

The rounded-edge rectangular swimming pond is 32.5 meters times 25 meters in dimension. It is an outdoor swimming pond without roof. The excavation of natural water has been completed upon arrival of the University's students. A retaining wall made of rock connected by cement was constructed as to resist the deformation of soil nearby due to excavation. 3 stairs and 4 ladders were also included in the swimming pond for access of users. Fences were also established to prevent accidental falling into the pond.

This project was tailor-made for Trung Dung commune. Adjustments have been made in response to the needs of local community and adaptation to local context has also been done. Various considerations

have been taken as to meet the financial budget and long-term maintenance feasibility. A balance between quality and feasibility have been achieved.

Retaining wall was built-in-progress in the first week of construction, with the University's students participated in transportation of rocks and cement. The structural part of retaining wall was completed by the end of the second week of construction. Sand filling was in-progress with the aid of excavation machine during the third week. Rocks were also laid as the foundation of stairs. Bricks were delivered as the outer non-structural component of the retaining wall in the same week. Lower layer of concrete fencing was built on the retaining wall.

In the fourth week of construction, concrete stairs were built and piles of short concrete columns were established as part of fencing. Installation of fencing was continued in the next week. Reading stacks were erected and concrete was poured surrounding the retaining wall as pavement.

Throughout the construction, students gain hands-on experiences like surface plastering, steel fixing, concrete mixing, transportation and applying practice. With the aid of interpreters, when students asked questions and raised concerns to workers and contractor, it simulates the communication engineers must make with site staff in their supervision.

### **Voluntary Teaching**

While the construction in Trung Dung Secondary School was ongoing, HKU students had organized 6 CIP (Child Injury Prevention) lessons to understand the issues of child injury in the commune via communication and interaction with the students. With games and teaching, the students' awareness to the commonly-neglected injuries can be raised. For our HKU students, it was also a valuable experience to share and have a deeper understanding of Vietnamese.

### **Need Assessment**

Apart from construction and voluntary teaching in the school, students are offered the opportunity to explore and understand the communes more. The assessment work started with the evaluation of a library which was built previously, to determine its effectiveness. We found the bias of teachers and parents towards comics and non-teaching books is still hindering the use of library. On the other hand, the building is in great condition for continuous usage.

Adopting the social science approach, we identified and assessed the household and community safety under 6 child major injury types, namely drowning, burns, falling, sharp objects, animal bites and traffic accidents. Then we present our analysis and suggestion in presentation to World Vision.

List of student participants

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