



Experiential Community Service Learning Projects

Introduction

Experiential learning particularly community service learning projects in engineering education promote both intellectual and civic engagement by relating academic learning to real-world problems and needs, engaging students in improving and solving social problems. Some of the experiential community service learning projects in engineering are initiated by external organizations, such as Engineers Without Borders (EWB), while some are initiated by universities, such as the Engineering Projects in Community Service (EPICS) founded by Purdue University. At the University of Hong Kong (HKU), engineering students and faculty members formed the Sichuan Reconstruction Team in 2009 to contribute to post-quake reconstruction (<http://www.eee.hku.hk/~sichuan/>), similarly, the MingDe project at HKU was led by faculty members and alumni (<http://www.civil.hku.hk/mingde/index.html>). Experiential community service learning projects in engineering can also be self-initiated by students. For example, Engineers for Community Services (ECOS) is a student organization at the Ohio State University which promotes social responsibility through local and international service learning projects. Depending on the institution/organization, the experiential community service learning projects can vary in terms of destination (i.e. oversea/local), nature of work and credit allocation (i.e. credit bearing/non-credit bearing).

Some people may argue that the assessment of students' participation in service learning may diminish the meaning of participation, however, assessing students is important in order for them to practically realize and reflect their learning experience. Assessment also provides 'evidence for faculties to support their belief that service-learning has a rightful place in the programme' (Strouse, 2003). This is important particularly there have been many well-cited research literature (Astin & Sax, 1998; Kuh, 1995) indicating that experiential community service learning projects allow many transferable skills to be developed, thus, fulfilling many accreditation criteria. Most experiential community service learning projects requires students to work in an external organization, where work needs to be monitored and assessed by the supervisor in place; and yet, there may not be any measures in place to ensure that work is assessed in the same standard as required by the university. Examples of assessment methods and framework for assessing service learning are presented below.

Educational Theories behind Experiential Learning (taken from Chan, 2012)

The underlying philosophy of experiential learning is based on John Dewey's theory. Dewey (1938) proposes that the nature of experience is continuous, and the experiential learning process is of fundamental importance to education and adult development. He believes that experience, inquiry and reflection are the key elements in experiential learning. This corresponds to Jean Piaget's cognitive development of experiential learning. Piaget (1999) emphasizes learning as a lifelong process of discovering knowledge, assimilation and accommodation of learning from experience and knowledge. Lewin (Smith, 2001) developed a four stage cycle of action research with reflection, planning, action and observation. Building from the theories of these philosophers, Kolb explored the processes associated with the perception of concrete experiences and the different type of learning styles associated with each process. He developed a holistic model of experiential learning process that is known as the Kolb's Experiential Learning Theory.

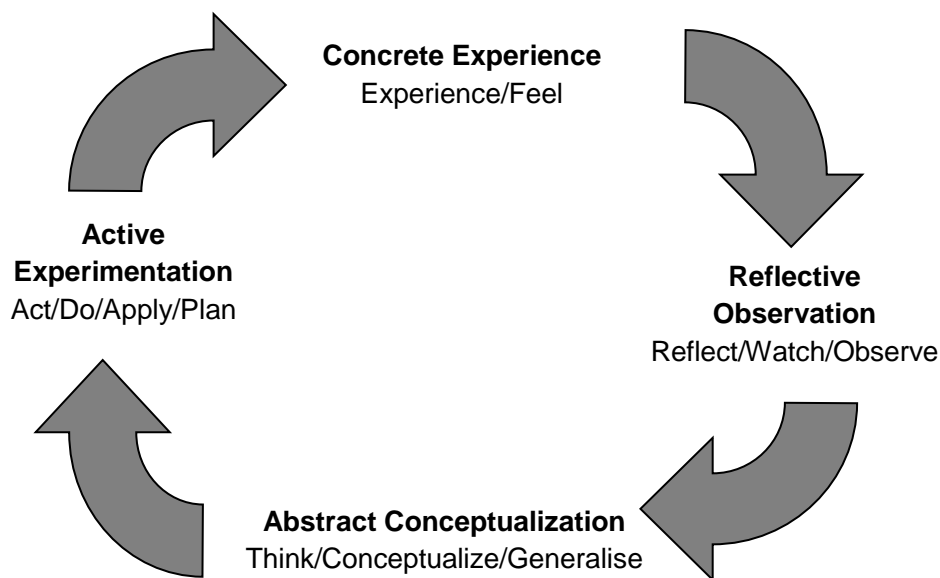


Figure 1. Model of Kolb's (1984) Experiential Learning

The Learning Theory defines experiential learning as “the process whereby knowledge is created through the transformation of experience” and is continuous (Kolb, 1984). Kolb's model portrays a 4-stage learning cycle, namely Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation (see Figure 1). It



requires the learner to experience, reflect, think and act in a cyclic process in response to the learning situation and what is learnt. Concrete experience is gained when the learner actively experiences and performs. Through the process of reflective observation, the learner consciously reflects and draws conclusion on their experience. Based on these implications, in the third stage of abstract conceptualization, learner can conceptualize a theory or model and utilize these generalizations as guides to engage in further action and experiment with different scenarios in the final cycle of active experimentation. The cycle is ongoing and it involves both concrete components and conceptual components which require a variety of cognitive and affective behaviors (Kolb, 1976). According to Kolb, for one's learning to fully transform into one's understanding, the learner must confer to the components of the learning cycle, however, the learning cycle can begin at any one of the four points as stated by Kolb and Fry (1975). Drawing from Kolb's Learning Theory, he also established the "conversational learning" approach whereby learners construct meaning and transform experiences into knowledge through conversations (Kolb, Baker & Jensen, 2002).

References:

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Learning Outcomes of Experiential Community Service Learning Projects (taken from Chan, 2012)

- i. Ability to apply enduring life-long skills, such as planning communication and team building with a variety of age groups and types of people.
- ii. Ability to apply prior academic knowledge and life experiences to service others in need.
- iii. Develop skills on how to think out of the box and problem solve in real-life situations.
- iv. Develop intercultural understanding & awareness of other cultures.
- v. Develop the capabilities of critical self-reflection and greater understanding of others, upholding personal & professional ethics.

References:

- Chan, C. K. Y. (2012). Assessment for community service types of experiential learning in the engineering discipline. *European Journal of Engineering Education*, 37(1), 29–38.

Assessment (Chan, 2012)

In order to practically realize students' learning experience and outcome in experiential community service learning projects, it is important for us to assess students regardless of whether they are being awarded credit for the assessment or not. Funding and accreditation bodies often request for assessment data of experiential service learning projects in order to demonstrate accountability for the public and administrative concerns on resource utilization.

For ideas on how to assess community service projects, please see section on assessing experiential learning (<http://hke3r.cetl.hku.hk/assessing-experiential-learning.php?page=1>).

References:

- Chan, C. K. Y. (2012). Assessment for community service types of experiential learning in the engineering discipline. *European Journal of Engineering Education*, 37(1), 29–38.



Credit Bearing

Depending on the faculty and/or university offering the experiential community service learning programme, it could be credit bearing or non-credit bearing. For example, at HKU, the Faculty of Social Science launched the Migrant Outreach Education Initiative (MOEI [<http://www.socsc.hku.hk/moei/2011/>]) in 2008, as one of the projects which undergraduate students can opt to select in order to fulfill the graduation requirement. Students participating in this experiential community service learning project will provide intensive English language education for migrant children and adults in countries such as Cambodia, Laos, Thailand and China. On the other hand, the Faculty of Science at HKU offers a non-credit bearing Service learning internship (SCNC2988), which involves working with NGO or community service providers.

Length of Experiential Community Service Learning Projects

The length of experiential community service learning project varies, with some lasting for more than a month and some for over a year. For example, the Project Mingde led by the Department of Civil Engineering at HKU lasted for a year, while the Cross-Border Service Learning Summer Institute (SLSI [<http://www.ln.edu.hk/osl/SLSI/>]) course offered by Lingnan University is a 7 week summer course involving service learning tour in Mainland China.



External Organizations Organizing Experiential Community Service Learning Projects

- a) AVS, Agency for Volunteer Service (<http://www.avs.org.hk/main/cht/>)
- b) Association for Engineering & Medical Volunteer Services (<http://www.emv.org.hk/main.php>)
- c) Chinese YMCA of Hong Kong (http://www.ymca.org.hk/eng/e_index.php)
- d) Christian Action (<http://www.christian-action.org.hk/>)
- e) Christian Concern For the Homeless Association (http://www.homeless.org.hk/Common/Reader/Version/Show.jsp?Pid=1&Version=0&Charset=big5_hkscs)
- f) Engineering Without Borders, Hong Kong (<http://www.ewb.hk/>)
- g) Habitat for Humanity, China (<http://www.habitatchina.org/eng/>)
- h) Haven of Hope, Christian Service (http://www.hohcs.org.hk/index_en.php)
- i) Heep Hong Society (<http://www.heephong.org/eng>)
- j) HKAGE, The Hong Kong Academy for Gifted Education (<http://ge.hkage.org.hk/en/>)
- k) LEAD, Learning through Engineering, Art & Design Project (<http://hkfyglead.no-ip.org/english/>)
- l) Sakka Foundation (<http://www.sakkafoundation.org/>)
- m) Society for Community Organization (http://www.soco.org.hk/index_e.htm)
- n) Special Olympics, Hong Kong (<http://www.hkso.org.hk/eng/index.php>)
- o) The Hong Kong Federation of Youth Groups (<http://www.hkfyg.org.hk/eng/index.html>)
- p) The Hong Kong Society for the Blind (<http://www.hksb.org.hk/en/>)
- q) The Salvation Army (<http://www.salvationarmy.org.hk/en>)
- r) World Vision (<http://www.worldvision.org.hk/en/>)

Examples of Experiential Community Service Learning Projects

Department/University	Name of Project	Detail	Credit-bearing?
Department of Civil Engineering, University of Hong Kong (HKU)	Mingde Projects	The first Ming De Project involved the building of a primary school (明德樓) in Xiali Village while the second involved the building of a student dormitory (格物樓) for the Rong Shui Vocational Training School. Civil Engineering students were engaged in every aspect from interviewing local villagers to understand their needs, to carrying out site surveys, drawing up building plans, working out construction details, securing approval from mainland authorities, preparing tender documents, managing budget spending, and monitoring construction progress.	Yes (civil engineering students can take up a project voluntarily while fulfilling their credit requirements for summer training)
Department of Health Technology & Informatics, The Hong Kong Polytechnic University	Biomedical Engineering Services to Under-privileged People with Physical Disabilities	<ul style="list-style-type: none"> • A group of 34 biomedical engineering students and staff members joined this pilot service-learning subject to help the needy children in Mainland China. • Students received basic training to provide orthotic services to children with physical disabilities. They were encouraged to apply the knowledge and skills acquired from their study or other learning experiences at the University to practical situations during the service trip. 	Yes
Faculty of Engineering, Hong Kong University of Science & Technology (HKUST)	ENGG 2900 Community Service Project	This course aims to increase students' involvement in community services and provide them learning opportunities through the social services programs such as fund-raising events, greening the society and elderly services. Under the supervision of the School, students will gain experience from developing a plan, marketing through implementation of projects at a designated non-governmental organization (NGO).	Yes



Guidelines in Organizing Experiential Community Service Learning Projects

General Guidelines for Teaching Staff

- i. Decide on the type of community project (what, where?)
- ii. Identify external organizer(s)/community partner(s) (see list of external organizations in Section 2)
- iii. Work with external organizer(s) and organize with students in planning project schedule
- iv. Allocate suitable internal and external supervisors.
- v. Prepare a list of intended learning outcomes
- vi. Plan learning activities to achieve the learning outcomes
- vii. Note safety issues (see California State University's Best Practices for Managing Risk in Service-Learning [http://www.calstate.edu/cce/documents/Final_draft.pdf])
- viii. Identity methods of assessment of learning outcomes (see assessment of experiential community service learning projects in Section 6)
- ix. Develop mechanism(s) for the evaluation of the impact and effectiveness of the project

Information for Teaching Staff at HKU

At the University of Hong Kong (HKU), subsequent to the establishment of the Gallant Ho Experiential Learning Centre (GHELC) in March 2012 with a generous donation from Dr. Gallant Ho, a Management Committee has been set up to oversee the allocation of funding to support experiential learning activities in the Faculties and the provision of support for student preparation and assessment of learning.

The Management Committee of GHELC invites Faculties to submit proposals for financial support for the purpose of introducing, expanding or enhancing experiential learning in their undergraduate curricula.

There are two rounds of applications annually:

- (a) January / Main Round – for experiential learning projects to take place in the summer and the September term; and



(b) May / Clearing Round – for experiential learning projects to take place in the January term.

For experiential learning projects taking place in 2013-14, the application deadline is **January, 2014**. You may submit an online application here:

<http://ghelc.hku.hk/application-for-experiential-learning-fund-from-faculties/>