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Message from General Co-Chairs

Welcome to the International Conference on Service-Learning hosted by the Office of Service-Learning of The Hong Kong Polytechnic University. This is the second part of a 3-part event consisting of (1) The Summit on University Social Responsibility, November 19; (2) this conference, November 20 - 21; and (3) The Service-Learning Showcase, November 21-23. University social responsibility is a grand vision for the university, while service-learning is a specific experiential teaching and learning method that can be a key in achieving that grand vision.

The Hong Kong Polytechnic University has decided to make service-learning a required credit-bearing subject for all undergraduate students, starting with the cohort entering in 2012. That means an estimated 4,000 students will be taking service-learning each year. This is a big challenge with many issues to be tackled. Within the university, subject syllabi need to be written, projects found, quality assurance standards and procedures written, funds raised, and our faculty and staff trained in service learning pedagogy. Working with our community partners, measures must be vigorously undertaken to ensure that the communities with which we engage will be full partners in these initiatives, ultimately attaining to sustainable outcomes of any service learning effort. The university has made much progress but many challenges remain ahead. We recognize that these are the same challenges that other universities are facing.

Fortunately, we can learn from each other. Universities worldwide have gained considerable experience in service learning, recognizing this as a highly effective experiential learning pedagogy, and integrating service learning into the academic curriculum in greater numbers. As the momentum continues to gather all over the world, a wide range of modalities have come to the forefront in implementing service-learning: as credit-bearing subjects, co-curricular programs, internships, direct service, field research, or advocacy projects. Associated with many disciplinary fields, they are often called by such names as: community service learning, engaged learning, social responsibility, global citizenship, civic engagement, and civic education. These complex and sometimes confusing relationships and terms of reference reflect the dynamic and developing nature of the field. There is much room and need for experience and research to inform the community.

Through this Conference, we aim to further promote the scholarly development of the relevant theories, models, practices and tools of service-learning, and doing so within a global and comparative context. We are grateful for two keynote speakers with a wealth of complementary experience between them. On the one hand, Prof. Andrew Furco, Associate Vice President for Public Engagement at the University of Minnesota,

will speak about the challenges in academic research and development in service-learning. On the other hand, Ms. Barbara Caynes, Executive Director of Massachusetts Campus Compact, will speak about the opportunities in collaboration and partnership.

We have also assembled two panels of esteemed speakers to lead us into discussions on the challenges that our community is faced with. One panel will examine the issues from the perspective of university management, with speakers from the USA, China, Israel and Singapore. The other will foster a dialog among different stake-holders, with speakers from USA, Hong Kong and Rwanda, representing universities, non-government organizations and business enterprises.

There will be, of course, many research presentations, students' experiences, posters, and other informal exchanges. Through this conference, researchers, practitioners, faculty members, administrators, and students gather together to share and learn effective practices, to discover opportunities and resources, to be inspired and challenged, and to network and foster partnerships. We are very much looking forward to an exciting and fruitful time of discussion and learning together.

Stephen C.F. Chan & Joseph S. Sun

Message from the Technical Program Co-Chairs

It is our pleasure to present the Technical Program of the International Conference on Service Learning. Since this is the first time that the conference has been organized, we did not have any “previous editions” to draw upon, but we built our program upon best practices from other conferences, both in the education/service learning area and from other disciplines.

The original Call for Papers included the following areas: the role of service-learning in university education, credit-bearing service-learning, service-learning as co-curricular activity, direct services for the community, civic engagement, Campus-Community partnerships, interdisciplinary service-learning, assessment of learning outcomes in service-learning, application of professional and discipline concepts in service-learning contexts, international Service-Learning, and first time experiences. Authors would have a choice of submitting a full paper for presentation, or a poster abstract. A student paper session was included with the objective of encouraging undergraduate research in service learning.

In total, we received 51 full papers, 14 poster abstracts, and 6 student papers. Due to popular demand, the submission deadline was moved back once, from 15 July 2014 to 10 August 2014. The submissions were allocated to CC program committee members who were all experienced educators and/or practitioners in service learning.

Based on the review results, we shortlisted 31 full papers for oral presentation, an acceptance rate of 60.8%. 11 additional full papers were accepted in a short paper format for poster presentation. In addition, 10 poster abstracts and 5 student papers were also accepted.

The resulting technical program has a diversity of papers from 7 regions: Hong Kong, United States, Taiwan, Philippines, Macau, Mainland China and Vietnam.

After reviewing the full papers, it was decided to divide them into the following categories for presentation: Personal Development, Engineering and Technology, Academic Elements, Health and Language Services, Internationalization, College Life, Impact and Partnership, Learning and Assessment. Two sessions, Academic Elements and Learning and Assessment, were selected to be special “thematic sessions”, which means a shorter presentation timeslot and more time for audience and presenter interaction. This is a new attempt on our part and we hope that it will fulfill our objectives!

Over the last few months, the TPC has done everything in their power to ensure that the technical program of the conference is of high quality and also diverse and inclusive. All this would not have been possible without the help of the program committee members. We would like to thank them for their hard work and patience, without which this technical program would not have been possible.

On a final note, we hope to make this conference an annual event and look forward to having your feedback after the conference. Engage with us and reflect much in the way we ask our students and community partners to reflect and share their feedback so that we can all look to continuously improving the experience!

Enjoy the conference!

Grace Ngai and Dayle Smith

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Keynote Speeches

Keynote Speech I

The Role of Service-Learning in Building the Socially Responsible Engaged University

Professor Andrew FURCO
Associate Vice President for Public Engagement
University of Minnesota, USA

Abstract

In recent years, the prevalence of service-learning has increased substantially in higher education systems across the globe. This presentation explores the critical role that service-learning plays in securing a university's status as a socially-responsible, community-engaged university. This presentation examines the strengths and limitations of service-learning for advancing student learning and educational success. It also brings to light the complexities of service-learning practice and the issues that researchers and practitioners must consider when studying and/or implementing service-learning. Key factors that have been found to promote the advancement and institutionalization of service-learning in higher education are also presented.

Biography

Andrew Furco is Associate Vice President for Public Engagement at the University of Minnesota, where is also serves as an Associate Professor of Higher Education. As Associate Vice President, he oversees the advancement of community-engaged research, teaching, and outreach initiatives across the University. His primary research and teaching interests focus on assessing the impact of authentic learning experiences, community engagement, and challenge-based curricula on student development. His publications and research studies have explored the role of service-learning and community engagement in primary, secondary, and higher education across various countries across the globe. He has led more than 30 research studies on service-learning and has produced over 70 publications on the subject. Prior to arriving in Minnesota, he served as a faculty member in the Graduate School of Education at the University of California, Berkeley and as the founding Director of Berkeley's Service-Learning Research and Development Center. He currently serves on the board of directors for the International Association for Research on Service-Learning and Community Engagement (IARSLCE).

Keynote Speech II

Partnership

Ms Barbara CANYES
Executive Director
Massachusetts
Campus Compact, U.S.A.

Abstract

In 2016, Campus Compact will celebrate 30 years of educating students for active citizenship and advocating for the civic purposes of higher education. In this presentation, Barbara Canyes, Executive Director of a state Campus Compact coalition with a membership of over 65 US colleges and universities, will reflect on the history, the accomplishments and the challenges of university/community partnership work. As Campus Compact marks its' 30 years, much of the work is now focused on pressing social justice issues and how to work on issues that matter for universities and communities. Examples of these models will be presented and new visions of partnership work will be proposed.

Biography

Barbara Canyes has been a supporter and leader in the field of civic engagement for the past 25 years. In 2000, she became Executive Director of Massachusetts Campus Compact – MACC. MACC is part of National Campus Compact, which is a network of 35 state offices advancing civic engagement on college and communities across the nation. In her 13 years at MACC, Barbara took its membership from 50 presidents up to its current level of 70 public and private Massachusetts's college presidents working to integrate civic engagement in higher education. Most of her work with members today involves assisting members with institutional planning, faculty development, community/university partnership work and student leaders in public service on college campuses. She received her undergraduate from American University and her Masters in Higher Education from University of Maryland, College Park.

Session 1

Personal Development

Nurturing service leaders through service learning for university students

HILDIE LEUNG
CECILIA M.S. MA
DANIEL T.L. SHEK
MOON Y.M. LAW

Department of Applied Social Sciences, The Hong Kong Polytechnic University

ABSTRACT

To meet the demand for service leaders in today's service-oriented economies, The Hong Kong Institute of Service Leadership and Management (HKI-SLAM) proposed the service leadership model advocating that effective service leadership is a function of **m**oral character, leadership **c**ompetencies, and a **c**aring disposition ($E=MC^2$). A 3-credit service learning subject entitled "Service Leadership through Serving Children and Families with Special Needs" was developed at The Hong Kong Polytechnic University to enable students to learn, apply, and reflect on the essential qualities of effective service leaders through developing and implementing service programs to adolescents, children and families at the Society of Boys' Centre and Heep Hong Society. 145 students participated in this subject across two semesters in the 2013-14 academic year. This paper introduces the subject and reports the results based on subjective outcome evaluation and feedback of students from agency staffs. Student reflections and implications on the nurturing of service leaders through service learning will also be discussed.

Key Words: Service leadership, service learning, university students, service leadership model

INTRODUCTION

Over the years, Hong Kong has shifted from a manufacturing to a service-oriented economy. The contribution of the service sector to Hong Kong's Gross Domestic Product rose from 89 percent in 2002 to over 93 percent to date (Information Services Department of the Government of the Hong Kong Special Administrative Region, 2013). The economic transition resulted in different skillsets needed from the workforce, especially for leaders. Industrial leaders are highly autocratic and transactional; employees are therefore hired based on their task competencies. In contrast, post-industrial leadership is concerned with relationship building, adopting a leadership structure that is characterized by flexibility, openness, and autonomy (Shek, Chung, & Leung, in press).

To meet the leadership demands in today's service economy, the Service Leadership and Management (SLAM) Model was developed by the Hong Kong Institute of Service Leadership and Management. According to the SLAM model, service leadership "...is about satisfying needs by consistently providing quality personal service to everyone one comes into contact with, including one's self, others, groups, communities, systems, and environments. A service leader is a ready, willing and able, on-the-spot entrepreneur who possesses relevant task competencies and is judged by superiors, peers, subordinates, and followers to exhibit appropriate character strengths and a caring social disposition" (Chung, 2011). It is argued that effective service leadership is a function of **m**oral character, leadership **c**ompetencies, and a **c**aring disposition, as represented by the formula, $E=MC^2$ (Chung, 2012). Chung (2013) identified 12 dimensions highlighting desirable qualities of service leaders, categorized

into 4 domains, including (i) doing; (ii) thinking; (iii) being; and (iv) growing. In sum, additional to functional expertise and task competencies, service leaders nowadays must possess a holistic set of intrapersonal and interpersonal skills.

NURTURING SERVICE LEADERS IN UNIVERSITY EDUCATION

As educators who aim to prepare students to become contributing members to the workforce and society, the important question is how we can nurture our graduates to become effective and successful service leaders in the contemporary service economy. A possible answer was provided in a recent article published in the South China Morning Post, where Chung (2014) suggested that to cultivate service leaders, “strategic and critical thinking must be taught in schools, colleges and universities. The addition of broad liberal arts and general education in schools and universities is a good start” (Insight & Opinion section, para. 9).

With the generous support of the Victor and William Fung Foundation, the Fung Service Leadership Initiative was implemented in eight University Grants Committee (UGC)-funded institutions in Hong Kong aiming at developing students’ service leadership competencies, promoting their character strengths and nurturing their caring disposition and service orientation. Under this Initiative, The Hong Kong Polytechnic University developed and implemented a wide range of credit-bearing subjects as well as non-credit bearing programmes for students (Shek et al., 2014; Shek, Yu, Ma, Sun, & Liu, 2013). In terms of credit-bearing subjects, a service learning subject was developed entitled “Service Leadership through Serving Children and Families with Special Needs”. Aligned with Rost and Barker’s (2000) contention that “in the postindustrial world, the concept of leadership must serve the general needs of society rather than the exclusive needs of corporations or of corporate executives. Post-industrial leadership must be inclusive rather than exclusive; it must focus on the community rather than on the elite” (p. 5), it is believed that service learning experience will enable students to acquire and reflect on the attributes conducive to effective service leadership in today’s society.

SERVICE LEADERSHIP AND SERVICE LEARNING

Service learning refers to the integration of learning objectives and community needs through active participation (Bringle & Hatcher, 1996). It aims at promoting social justice, fostering civic engagement and developing leadership skills among students (Eyler & Giles, 1999). Through participation in service, a seamless learning environment is provided (Kuh, 1996). Students are asked to step out of their comfort zones, to apply their academic course materials and to reflect on their service learning experiences (Eyler, Giles, & Schmiede, 1996; Kendall, 1991). A substantial body of research shows the positive outcomes of service learning courses on students’ cognitive and personal development (e.g., Maher, 2003; Quezada & Christopherson, 2005).

Although the theoretical importance of service learning is highlighted, research on the effectiveness of service learning program is scarce. Indeed, faculty and staff raise similar concerns and perceive this as a time-consuming and demanding course. As pointed out by Gray and colleagues (1999), “faculty are reluctant to invest the extra time that teaching service learning courses entails, and many are skeptical of the educational value of service learning” (p. 103). Therefore, more research is warranted to demonstrate the positive outcomes of this unique credit-based service subject.

In particular, as mentioned by Ko (2011), it is important to understand how students benefit from service learning through leadership program, such as service leadership subjects. Researchers argued for the need to nurture university students’

competencies and to increase their employability through leadership programs (Colby, Ehrlich, Beaumont, & Stephens, 2002; Glanzer & Ream, 2009; Shek, 2010). Given the importance of developing students' interpersonal and intrapersonal skills, all students under the 4-year undergraduate degree program at The Hong Kong Polytechnic University are required to enroll in at least one 3-credit bearing service learning subject. This paper describes the background of a service learning subject developed aiming at fostering students' service leadership competencies. Quantitative findings from students' subjective outcome evaluation and feedback on students' performance from agency staffs will be presented. In addition, students' reflections on the subject and implications on nurturing of service leaders through service learning will also be highlighted.

BACKGROUND OF THE SUBJECT

A 3-credit service learning subject entitled "Service Leadership through serving Children and Families with Special Needs" has been offered to students studying under the 4-year undergraduate program since spring semester of 2013-14 academic year. A total of 145 students took this subject. Upon completion of the subject, students were expected to be able to:

1. Address the needs of the service recipients through service delivery;
2. Link their service experiences with academic course materials;
3. Appreciate and respect people from diverse backgrounds;
4. Integrate academic learning (e.g., knowledge on service leadership) into the service experience and activities;
5. Demonstrate empathy and care by providing community service;
6. Apply the skills (e.g., active listening) and knowledge (e.g., moral character and competencies) they have acquired in university education to deal with complex issues in the service setting;
7. Reflect on their service leadership qualities through service learning; and
8. Work effectively with different parties (e.g., students, teachers, family and community partners) when preparing and delivering service.

This 42-hour subject was aimed to enable students to understand and apply the core components of service leadership through the engagement of community-based service activities, develop self-awareness of sharing and empathy to others and the community, and reflect on their service leadership qualities. These were achieved through the process of developing service programs and implementing service to adolescents, children and families at the Society of Boys' Centre and Heep Hong Society.

Students applied their service leadership competencies and discipline related knowledge in both direct (e.g., design and implementation of day camps, remedial and developmental classes) and indirect service (e.g., preparation of a resource kit with family-based activities for children with special needs) provision. The details of some examples of the service projects designed and delivered are shown in Appendix 1.

STUDENTS' PERCEPTIONS TOWARD THE SUBJECT

In terms of quantitative evaluation, during the final workshop students were invited to complete a 38-item subjective outcome evaluation form ($\alpha = .97$) to gauge their perceptions toward the curriculum content (10 items; $\alpha = .93$), lecturer (10 items; $\alpha = .95$), and subject benefits (18 items; $\alpha = .97$). A total of 111 questionnaires were collected. The means and percentage findings are shown in Tables 1 and 2. Overall speaking, students had positive evaluations toward the subject. The percentage of respondents with positive responses to the items ranged from 83.6 to 99.1% across all three attributes. Students felt that the design of the curriculum was good (85.6%), with clear objectives (93.7%).

Lecturers were well-prepared (96.4%) and professional (96.4%). Most importantly, the subject helped them understand the attributes conducive to effective service leadership (91.0%) and was beneficial to their overall development (93.7%). Intrapersonally, students reported improvements in handling emotions (91.9%), critical thinking (91.9%), and ethical decision-making (92.8%). Interpersonally, students' social competence (92.8%) and sense of responsibility (93.7%) were enhanced. Apart from quantitative results, students also provided qualitative comments for improvements on the subject. For example, “*Add one more lecture to provide more knowledge about our clients*” and “*More communication between students and teachers*”. In general, students perceived the course positively. They applied their knowledge (e.g, moral character, care) and skills (e.g., active listening) to their service learning experiences, learned to work effectively with different parties (collegiate and non-collegiate partners), and reflected on their service. These aligned with the intended learning outcomes of the course.

Item	Respondents with positive responses (3-5)		
	Mean (SD)	N	%
Curriculum content ($\alpha = .93$)			
The objectives of the curriculum are very clear.	3.67 (.71)	104	93.7
The content design of the curriculum is very good.	3.29 (.78)	95	85.6
The activities were carefully arranged.	3.45 (.80)	95	85.6
The classroom atmosphere was very pleasant.	3.75 (.76)	105	94.6
There was much peer interaction amongst the students.	3.92 (.69)	107	96.4
I participated in the class activities actively (including discussions, sharing, games, etc.).	3.91 (.60)	110	99.1
I was encouraged to do my best.	3.77 (.64)	107	97.3
The learning experience enhanced my interests towards the course.	3.44 (.81)	98	88.3
Overall speaking, I have a very positive evaluation on the course.	3.50 (.85)	97	87.4
On the whole, I like this course very much.	3.34 (.88)	95	85.6
Lecturer ($\alpha = .95$)			
The lecturer(s) had a good mastery of the course.	3.85 (.71)	108	97.3
The lecturer(s) was (were) well prepared for the lessons.	3.93 (.70)	107	96.4
The teaching skills of the lecturer(s) were good.	3.79 (.82)	105	94.6
The lecturer(s) showed good professional attitudes.	3.92 (.80)	107	96.4
The lecturer(s) was (were) very involved.	4.01 (.73)	107	96.4
The lecturer(s) encouraged students to participate in the activities.	4.03 (.74)	107	96.4
The lecturer(s) cared for the students.	4.05 (.85)	105	94.6
The lecturer(s) was (were) ready to offer help to students when needed.	4.04 (.80)	104	93.7
The lecturer(s) had much interaction with the students.	4.00 (.77)	108	97.3
Overall speaking, I have a very positive evaluation on the lecturer(s).	3.87 (.86)	103	92.8

Note: All items yielded positive responses (i.e., ratings above 3). Items are rated on a 5-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Table 1. Summary of students' perceptions toward the curriculum content and lecturers (N=111)

Item	Respondents with positive responses (3-5)		
Subject benefit ($\alpha = .97$)	<u>Mean (SD)</u>	<u>N</u>	<u>%</u>
It has enhanced my social competence.	3.82 (.68)	103	92.8
It has improved my ability in expressing and handling my emotions.	3.84 (.72)	102	91.9
It has enhanced my critical thinking.	3.66 (.75)	102	91.9
It has increased my competence in making sensible and wise	3.76 (.75)	102	91.9
It has helped me make ethical decisions.	3.83 (.75)	103	92.8
It has strengthened my resilience in adverse conditions.	3.88 (.74)	103	92.8
It has strengthened my self-confidence.	3.75 (.69)	103	92.8
It has helped me face the future with a positive attitude.	3.67 (.75)	104	93.7
It has enhanced my love for life.	3.32 (.82)	93	83.8
It has helped me explore the meaning of life.	3.38 (.85)	94	84.7
It has enhanced my ability of self-leadership.	3.75 (.70)	105	94.6
It has helped me cultivate compassion and care for others.	3.96 (.71)	105	94.6
It has helped me enhance my character strengths comprehensively.	3.74 (.74)	104	93.7
It has enabled me to understand the importance of situational task competencies, character strength and caring disposition in successful leadership.	3.81 (.73)	103	92.8
It has promoted my sense of responsibility in serving the society.	3.81 (.69)	104	93.7
It has promoted my overall development.	3.81 (.74)	104	93.7
The theories, research and concepts covered in the course have enabled me to understand the characteristics of successful service leaders.	3.65 (.68)	101	91.0
The theories, research and concepts covered in the course have helped me synthesize the characteristics of successful service leaders.	3.62 (.75)	99	89.2

Note: All items yielded positive responses (i.e., ratings above 3). Items are rated on a 5-point Likert scale with 1 = unhelpful, 2 = not very helpful, 3 = slightly helpful, 4 = helpful, 5 = very helpful.

Table 2. Summary of students' perceptions on the extent of that the subject has benefited them (N=111)

FEEDBACK ON STUDENT PERFORMANCE FROM AGENCY STAFFS

Staffs from the two agencies including social workers, teachers, and psychologists were invited to complete an evaluation form to rate students' service performance with reference to the attributes advocated by the service leadership model (e.g., sense of care, service and reflective attitudes), with 27 evaluation forms collected. Results are shown in Table 3. In general, agencies were highly satisfied with students' service performance with reported mean scores of above 4 across majority of the items. Students held positive service attitudes ($M=4.44$, $SD=.64$), possessed a caring disposition ($M=4.37$, $SD=.56$), and demonstrated service leadership attributes including awareness to the needs of service recipients ($M=4.11$, $SD=.64$), problem-solving skills ($M=4.18$, $SD=.68$), and were reflective ($M=4.33$, $SD=.55$). Respondents were also encouraged to provide qualitative comments on students' performance. Below is a comment received:

- “We appreciate students’ effort in the mentoring program. In addition to building strong bonds with children at our Center, students showed creativity in developing activities that greatly benefited the service recipients. We were also impressed by students’ care and willingness to deal with challenges posed by the children with special needs. We believe this subject is a valuable experience that will enable and prepare students to face future challenges they may encounter in their life journey.”

In addition, agencies also provided constructive comments on how students may improve in their service leadership competencies:

- “Students showed care toward the children by communicating and interacting with them in and outside of class. However, students need to better understand the characteristics and needs of the service recipients and to further improve on their teaching skills...”

General feedback	Mean (SD)
Service attitude	4.44 (.64)
Sense of responsibility	4.51 (.57)
Awareness of needs	4.11 (.64)
Sense of care	4.37 (.56)
Cultural sensitivity	3.29 (.83)
Teamwork	4.22 (.64)
Problem-solving skills	4.18 (.68)
Communication skills with service targets	4.22 (.50)
Teaching skills	4.03 (.51)
Application of discipline-specific knowledge	3.33 (.80)
Reflective attitude	4.33 (.55)
Punctuality	4.44 (.50)
Overall performance	4.22 (.50)

Note: All items yielded positive responses (i.e., ratings above 3). Items are rated on a 5-point Likert scale with 1 = very poor, 2 = poor, 3 = fair, 4 = good, 5 = very good.

Table 3. Means and standard deviations of feedback scores from agency staffs on students’ service performance (N=27)

STUDENTS’ REFLECTIONS

Both service leadership and service learning emphasize reflection. As such, students were required to submit three reflective journals across the two semesters. These reflective journals clearly showed that students learned, acquired, and reflected on different service leadership attributes. Below are some examples of reflections from students.

In terms of leadership competencies, students shared that:

- “For interpersonal competence, I have enhanced my ability in conflict resolution. During group discussions, different group members may argue for their points. ... I have learnt to deal with such cases by asking the members to clarify their points one by one; if there are any misunderstandings, I will try to explain and summarize them in an easy way.”

- “I seldom have the chance to deal with children because I am the youngest in my family. This was a good opportunity for me to learn to take care of the younger ones... to appreciate and respect people from diverse backgrounds and to apply different skills and knowledge to deal with complex issues in the service setting. I understand that it is important to open yourself in order to have good communication and relationships with others.”

Students were also aware of the importance of service leadership attributes:

Moral competence

- “Promise-keeping and integrity are very important to me because I know how disappointing and heartbreaking it feels when somebody breaks his/her promise to me. Therefore, I paid quite a lot of effort in maintaining trust and respect within the place, hoping that my service targets would feel fair and joyful.”

Demonstrating care and empathy

- “Before this course, I seldom showed my care due to my passive personality. But after the services, I found that care is paramount for building relationships, only when people feel your care, will they be willing to treat you with heart. I will be more active to show my care when I meet someone in need in the future.”

Active listening

- “I tried to use active listening skills and asked whether he (the service recipient) felt thirsty. I showed him my willingness to listen to his needs. Active listening skills enabled me to get in touch with my clients and to build positive relationships with them.”

Students also had the opportunity to reflect on their roles and responsibilities:

- “In the past, I think a responsible citizen should be a good student who studies hard, try not to waste money and resources from taxpayers, donate money to charity, such simple things. However, a good sense of social responsibility is not only about donating money and saving resources, but also providing services to the needy personally.”
- “A service leader should understand that providing services does not only satisfy the needs of people, but also benefits oneself by ethically improving competences and abilities. ... As long as we are willing to contribute, we could make a change to the community by doing even the slightest.”

Lastly, the subject has helped students to prepare for their future:

- “In the face of the future challenges, I would not only blame the surrounding, but try to have reflection and improve myself. I hope this attitude can guide me in the future and lead me to be a better person.”
- “I am happy to have this opportunity that can stretch the way I think about the community. I become more willing to participate in other volunteer activities because of the positive impression of this experience. I believe such experience has a value of enhancing my sense of belongingness to the society and civic responsibility by participating in service.”

The above qualitative findings indicate students' personal growth in terms of intrapersonal and interpersonal competencies, connection between the course and service experience and support the integration effects of service learning and service leadership on students learning outcomes (Ko, 2011).

CONCLUSION

The expansion of the service sector in economies worldwide poses new demands on the workforce. Educators' goal is to prepare students to meet these expectations and become contributing members to society. Based on the service leadership model, the present service learning subject plays an important role in nurturing students to become service leaders. In this subject, students not only acquired knowledge on the different attributes of effective service leadership (i.e., leadership competencies, moral character, and caring disposition), but they also had the opportunity to put such knowledge along with their subject and discipline-specific skills into practice through designing and implementing different activities for adolescents and children with special needs. Students also reflected on their strengths and weaknesses as service leaders, as well as their roles and responsibilities. Taken as a whole, results from the subjective outcome evaluation, feedback on students' performance by agency staffs, and students' reflections support the conclusion that the subject was beneficial to the development of students as service leaders, while mutually satisfying the needs of service recipients. As a part of the Fung Service Leadership Initiative sponsored by the Victor and William Fung Foundation, this subject is a successful endeavor in the nurturance of service leaders through service learning for university students. Tertiary institutions in Hong Kong will gain insight from this paper, including the rationale, practice, experiences, and assessment methods for the development of service leadership subjects. In view of the generic nature of this subject, it would be easy to transplant the subject to different institutions in Hong Kong. As economies worldwide are becoming highly service-oriented, there is a need for tertiary education universally to prepare students to adapt to the new challenges. Service leadership serves as an important framework to prepare graduates to become effective service leaders both locally and globally. As service learning emphasizes reflection, social responsibility, ethics, and empathy which are closely aligned with the advocated service leadership attributes, service learning is an ideal model for the development of service leaders in and outside of Hong Kong.

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Appendix 1. Examples of service projects delivered by students in Heep Hong Society and Society of Boys' Centre

Activity	Objectives of activity	Brief description of activity	Target service	Participants
Direct Service				
The Hong Kong Polytechnic University Fun Day	<ul style="list-style-type: none"> To enhance children's social skills. To provide children with a chance to visit PolyU. To encourage children to form aspirations. To provide an opportunity for harmonious family interaction. 	A large-scale joint Parents' Resources Centre activity at PolyU: <ul style="list-style-type: none"> Children and families participated in small group activities (e.g., arts and crafts), mass games, and a PolyU campus tour 	Parents and children with special needs (e.g., ADHD, Autism, Emotional Behavioral Disorders)	56 participants from over 20 families Children aged 6-15
The Hong Kong Polytechnic University Day Camp	<ul style="list-style-type: none"> To give adolescents the opportunity to explore the PolyU campus. To stimulate adolescents' thinking and creativity. To encourage students to cooperate with each other. 	Day Camp included: <ul style="list-style-type: none"> Team-building activities Fashion design activity Campus tour Visit to the Institute of Textile and Clothing Studios 	Adolescents with special needs (e.g., ADHD, Autism, Emotional Behavioral Disorders)	18 students studying Art and Design Aged 15-17
Developmental Sessions	<ul style="list-style-type: none"> To teach children appropriate ways to express their emotions, inner-feelings or personal views. To teach children appropriate social skills (e.g., listening to and respecting others, conflict resolution). 	Sessions included: <ul style="list-style-type: none"> Role playing Arts and crafts Making snacks 	Children with special needs (e.g., ADHD, Autism)	21 children Aged 8-15
Indirect Service				
Activity Booklet for Children with Special Needs	<ul style="list-style-type: none"> To assist parents to enhance the attention span of their children through activities in the booklet. To enhance children's self-esteem and skills. To encourage and inspire parents to create similar activities for their children. 	Activity booklet consisted: <ul style="list-style-type: none"> Introduction to issues, prevalence rates, and research regarding ADHD, specific to Hong Kong Clear instructions to parents and children on how to conduct the activities. English and Chinese versions of the booklet were produced.	Booklets for parents and children with concentration/attention deficits	Aged 3-5

Integration of Service Learning to the National Service Training Program

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ABSTRACT

This paper shows that civic engagement through the National Service Training Program (NSTP), a legally-mandated program for tertiary level students in the Philippines that is aimed at contributing to the general welfare of members of Filipino communities who are at the margins of society can be strengthened through the integration with their disciplinal training. The first half of the paper describes the processes of how NSTP is implemented in the Ateneo de Manila University, a private university located in Quezon City, one of the cities in Metro Manila. The second half specifically highlights how the implementers were able to integrate the service learning approach to the proceedings of the said program. Through such an approach, pursued more intentionally at the Ateneo de Manila for the past two years, students' particular academic disciplines become crucial elements in both the holistic formation of the students and the service of marginalized communities.

Key Words: service learning, discipline-based approach, civic education, formation

1. THE NATIONAL SERVICE TRAINING PROGRAM

As in the past, schools have been the main agents of developing citizenship among their students (Berman, Sheldon, 1949). This means that not only are students taught about their rights but also of their responsibilities as citizens. It is believed that during the first half of the 18th century, civic culture and even national pride have been instilled to the public by their schools. The schools have been given the role of promoting social responsibility to their students. Moreover, the schools have been tasked to form students to be responsible members of society (Bernan, Sheldon, 1949). Even in the Philippines, this particular role of the schools has been vital to the government. The installation of the national service program was coursed through the different colleges and universities.

Various national service programs are created to help build character, inspire patriotism, help participants see the goodness in their country and provide opportunities for civic engagement (Ling, 2012). In the Philippines, Republic Act 9163, which is an "act establishing the National Service Training Program (NSTP) for the tertiary level students..." was institutionalized (Republic Act 9163, 2002). Its enactment affirms the primary role of the Philippine government and its people, which is to protect and serve its citizens. It further recognizes the role of the youth in nation building and has thus committed to the formation of the various aspects that comprise each student's person. This formation should lead to a deeper involvement in the civic and public affairs (Republic Act 9163, 2002).

The implementation of NSTP through the higher education institutions (HEIs) is a good strategy in attaining the goal of the government for the youth to have a deeper involvement in civic affairs. The NSTP, as a legally-mandated program, means that a total of 2,299 colleges and universities in the Philippines are responsible for the implementation of the components of the program. This further means that there are approximately 1,600,000 first year Filipino college students who will be able to provide service to various community partners of the HEIs (National Statistical Coordination Board, 2012).

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As the law states, NSTP shall be undertaken for an academic period of two semesters. The major requirement of Republic Act 9163 is the activities and programs aimed at contributing to the welfare of members of our society who are at the margins (Republic Act 9163 2002). For most of the 2,299 HEIs, it is the first year students who are required to enroll in any of its three components: Literacy Training Service (LTS), Civic Welfare Training Service (CWTS) and the Reserve Officers' Training Corps (ROTC). In the Ateneo de Manila University, it is moved to the second year college students.

Each of the components has its specific goal. The ROTC component is designed to provide military training to students for future mobilization in instances where there is a need to defend our nation. The LTS is designed to guide students in teaching underprivileged children proper literacy and numeracy skills. The CWTS, on the other hand, provides students with opportunities to contribute to the general welfare of our citizens. Students can be engaged in activities that could improve the health, environment and entrepreneurship sectors of society (Republic Act 9163, 2002).

2. THE ATENEO DE MANILA UNIVERSITY AND ITS FORMATION PROGRAM

The Ateneo de Manila University is a private university located in one of the cities in Metro Manila, Philippines. It provides undergraduate and graduate degree programs in the Arts and Sciences to its more than 8,000 student population. According to its vision and mission statement, the Ateneo identifies itself as a Filipino, Catholic, and Jesuit University, which aims to help in the development goals of the nation. As a Catholic University, it exists to promote social justice by providing assistance to those in marginalized sectors of society. Furthermore, as a Jesuit University, the Ateneo seeks to always strive to do all things for the greater glory of God (Ateneo de Manila University, Undergraduate Student Handbook, 2012 Edition, p. 17).

As part of its response to the University's thrusts, the Loyola Schools, which is the tertiary unit of the Ateneo, have formally set up a four-year formation program for all of its undergraduate students, collectively called the Integrated Ateneo Formation (InAF) Program. The said program makes sure that students do not just have a good training ground in the academics but are also provided with opportunities for holistic development. The InAF Program aims to develop as well the personal, socio-cultural and spiritual aspects of each student's person. This is done through the four programs of InAF, Introduction to Ateneo Culture and Tradition (InTACT) for first year, NSTP for sophomores, Junior Engagement Program (JEEP) for juniors and the Senior Integration Program (SIP) for fourth year students. Its different program components are crafted and facilitated by the different formation offices in the Loyola Schools namely the Office of Guidance and Counseling (OGC), the Office of Campus Ministry (OCM), Office for Social Concern and Involvement (OSCI), Office of Student Activities (OSA) and the Office of the Associate Dean for Student Affairs (ADSA) (Integrated Ateneo Formation Program Write-Up, 2014).

3. THE NATIONAL SERVICE TRAINING PROGRAM IN THE ATENEO

From its set-up, NSTP in the Ateneo, has always tried to do more, i.e., past the minimum standards set by the implementing rules and regulations of the law. First, the implementers of NSTP has always subscribed to the Pastoral Learning Cycle as a framework in running the program.

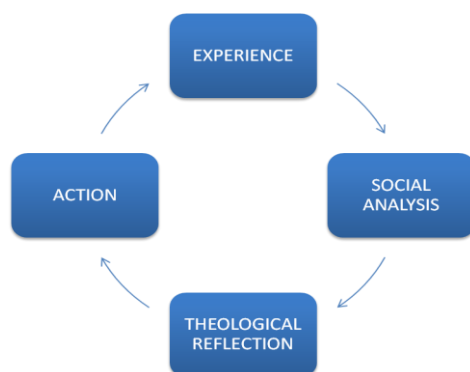


Figure 1. Pastoral Learning Cycle Framework

The Pastoral Learning Cycle framework (see Figure 1) hopes to make students see that experiencing a situation is not enough. There is a need to dissect the situation into different parts and see the causes of the problem at hand. It has been argued that contemporary educators believe that experiential learning and reflection provide students with a way to better understand problems of the society and offer creative solutions to these (Giles, Jr and Eyler, 1994). Thus, the framework also emphasizes that it should not just be at the head level but students should also find deeper meaning of their experience. All this is in the hope of moving them to action (NSTP PLUS Manual, 2014).

Second, the formation programs of the Ateneo aims to form the whole person of each student. According to the InAF Program Write-up, each of the program, including the NSTP, seeks to provide students with opportunities that can help develop and integrate the personal, academic, socio-cultural and spiritual dimensions that comprise each student's person. (InAF Program Write-up, 2014)

Third, students are asked to attend a series of preparatory activities. A semester of NSTP would have around three preparatory Ateneo-based activities before students go to their respective communities or institutions. They will be provided with an orientation of the program, its objectives and policies. The second session aims to provide students with the technical knowledge and skills necessary to perform their assigned tasks. If they are assigned to tutor children who cannot read, Ateneo students will be given the modules and taught how to run these when in the community or school. The third session, on the other hand, provides students with basic integration skills. This session recognizes the sensitivities of the different communities that the students will visit.

The 2,100 sophomore students would normally spend around two to three hours in the communities for around nine to ten Saturdays or weekdays for some sections. In between these community-based activities are processing sessions, social analysis sessions and one recollection, which aim to deepen the experience of the students. At the end of the semester, there is also the synthesis session that brings together the learning of the students from their experiences in their assigned communities and institutions.

As earlier mentioned, the major requirement of Republic Act 9163 is the activities and programs aimed at contributing to the welfare of members of our society who are at the margins (Republic Act 9163, 2002). In the past, more than 50% of the NSTP students have been helping the sector of Public Basic Education through the Literacy Training Service. However, this school year seems to be an opportune time to implement changes in the approach to the program.

4. DISCIPLINE-BASED APPROACH TO FORMATION

There has always been the challenge for schools to provide a more relevant and timely education for their students. From its long history of formation programs, the Ateneo has always responded

to this challenge by adapting to the signs of the times. It has heeded the call of students and Filipino citizenry alike on how it can, as an educational institution, serve the country better. It has time and again answered the question of the youth on what they can do as students. It has also adopted methodologies that could address not only the formative aspect of education but also the needs of certain development institutions. Of relevance to this paper is how its implementation of the NSTP program has brought forth a good interpretation of the law, i.e., spelling out more concretely what it means to promote civic consciousness in the youth and the general welfare of our country (Republic Act 9163 2002).

In the first semester of School Year 2012-2013, the NSTP has experimented on a discipline-based approach to its implementation. While the past structure of the program already lends itself to civic engagement by providing opportunities to teach public school students and do various civic welfare activities, a survey conducted in the past school year revealed that Ateneo students are looking for a more meaningful service experience in their NSTP. Some argued that they will not be teachers after graduation. They hope that the different activities in the formation programs can help them prepare for life after college. The students believe that the integration of service learning in the program can achieve this (Sanggunian Grand Consultation, 2012).

Related to this, at the start of School Year 2012-2013, the Office of the Vice President for the Loyola Schools set a tighter integration with the academic or course curriculum as one of the goals for the formation programs to have. This goal points to creation of programs that are more disciplinary in nature and that could serve as alternatives to the more generic approach to formation. While there had been efforts in the past to link some of the formation programs with certain departments or faculty members, the mandate now calls for a more deliberate and institutionalized approach to achieving this target.

4.1 Discipline-based Approach

What is the discipline-based approach? It is an Ateneo approach to formation that makes use of knowledge and skills *related* to one's discipline or course to serve development institutions and marginalized communities. The approach addresses a particular community's needs and the students' learning of how their discipline can be used to help other people. The university aims to form professionals-for-and-with-others, where Ateneo graduates use their expertise in their respective fields to help marginalized communities (De la Cruz, 2008). This approach is one of the concrete attempts to reach that goal.

The discipline-based approach requires the students to spend time in a marginalized community or institution to do activities that are related to their discipline. The clientele varies according to the service that the discipline can offer. This requires the support of the academic departments, which will help determine the kind of service that their students can provide the marginalized communities. The academic department is also important in the creation of the modules and tools that the students will use.

At the start of the implementation of a discipline-based NSTP in 2012, there were partner courses that do not have subjects in second year that could be integrated with the NSTP experience of their students. However, what students have are specific knowledge and skills that they may have already been honed as an informal prerequisite to their disciplinary training. Students from Management Information System and Computer Science are assumed to have mastered the basics of MS Office enough to be able to teach others how to use this while Information Design majors have demonstrated basic drawing skills in their portfolio presentation as part of their screening process.

At present, there are still courses, which do not have subjects in second year that could be integrated with the NSTP of the students. This is why the more general discipline-based approach to the program is still prevalent. The integration of the disciplines in the area work in NSTP is varied but the design of the activities captures the basic knowledge and ideas one has of

a particular department. In the end, the program and the department subscribe to the discipline-based approach because it builds a good foundation for the next two years of possible service learning classes.

To illustrate further the integration, the table below shows a list of the area work of students from six disciplines:

	Departments	Nature of Work
1	Biology	Training for public school teachers on how to use the laboratory equipment
2	Management Information Systems and Computer Science	Systems Evaluation in government and non-government institutions
3	Psychology	Students provide psychosocial services for children with special needs
4	(Fine Arts) Information Design	Design solutions for public schools
5	Economics	Economic Profiling and Data Management
6	Management Economics	Community Profiling and Financial Literacy for members of cooperatives

Table 1. Examples of Area Work of Discipline-based NSTP

The discipline-based approach may bear semblance to community service or service learning. However, it is important to note that while some aspects of the approach may also be seen in the two aforementioned, the distinction being made in this paper is deliberate. In community service, the kind of service provided to the communities is very diverse and not necessarily related to their discipline. The service can be provided by anyone, regardless of their disciplinal training. In service learning, on the other hand, the activity is integrated in an academic subject, which follows that the project and work done for the community is graded. The contribution that the students give the community is relative to the knowledge and skills set learned in that particular academic subject. The difference of the discipline-based approach from service learning comes from the fact that the former is not anchored in a particular academic subject.

5. INTEGRATION OF SERVICE LEARNING WITH NSTP

Similar to the discipline-based approach to formation, the integration of service learning is based on the direction set by the Vice President for the Loyola Schools, i.e., have a tighter integration with the academic or course curriculum. Like the clamor of the students, the integration hopes to concretize Ateneo's thrust of forming professionals-for-and-with-others. The hope is for their courses and programs to be good training grounds for utilizing their knowledge and skills for the benefit of our society.

The integration also seems natural as the National Service Training Program and service learning have similar goals and outcomes. As earlier stated, the NSTP formation should lead to a deeper involvement of the youth in the civic and public affairs of the Philippines (Republic Act 9163, 2002). Service learning, on the other hand, has been known to enhance citizenship skills by allowing concepts of private and public good to be integrated into students' learning (Chupp and Joseph, 2010). The processing of the experiences, both in the academic subject and the sessions under the NSTP program, facilitates this integration.

5.1 Integration of Service Learning in the NSTP

In the current School Year 2014-2015, there was a more aggressive attempt to integrate service learning with NSTP. In meetings with the departments, a subject that could be integrated with their NSTP experience has been identified. For example, Political Science majors go to different communities and institutions not just to serve the NSTP requirement but also to be able to finish

the research component of their Qualitative Research Methods class. The integration benefits the students since their service in the community or institution is for two requirements.

Table 2 further illustrates some of the departments' integration of NSTP via particular subjects or courses.

	Departments	Course	Nature of Work
1	Management	Accounting Class	Financial Literacy Training
2	Development Studies	Statistics	Conduct surveys that they will process in Statistics class
3	Political Science	Qualitative Research Methods	Research for government institutions
4	Psychology	Development Psychology	Conduct of psycho-social activities

Table 2. Examples of Service Learning Integration in NSTP

Service Learning Integration in the School of Management

In the case of Management majors, they are tasked to conduct financial literacy workshops to parents in the community. Since it is needed for both the NSTP and Accounting requirements, the planning of the program activities is done by the Management department and the Office for Social Concern and Involvement (OSCI), the office in-charge of implementing the service component of NSTP. The task of the students is to facilitate financial literacy modules to the beneficiaries of the Conditional Cash Transfer (CCT) program of the Department of Social Welfare and Development (DSWD), the government agency tasked to protect the social welfare rights of the Filipinos. The CCT program provides conditional cash grants to poor families to improve the health, nutrition and education of their children (Department of Social Welfare and Development, 2014).

The goal of the management students is to help the families manage well the money that is provided for by the government. This is done by teaching the community parents the necessary knowledge and skills related to financial matters. Since this is not an easy task, the first semester of their NSTP is dedicated to preparing the sophomores in the facilitation of the ten modules for the second semester. The students are provided with (a) background of the CCT program, (b) training in integrating and communicating with the parents, (c) facilitation and classroom management skills and (d) experience of actual conduct of the modules including goal setting, income and expenditures, budgeting and savings.

In the actual community service, the students are divided into groups of ten members. Each session is divided into two: a plenary session where general concepts are taught by head facilitators and break-out sessions where a student handles a parent or two to help fill out tables and charts so they can practice actual budgeting and saving. To help the students, some senior facilitators are present in the community in case they would need assistance in the delivery of the modules. Parent monitors from the community are also present to help them in handling possible concerns in integration. These same monitors are the ones who grade them based on their performance of the tasks, interaction with the people and their ability to abide by the set policies.

In between community service, the experiences of the students are processed through two processing sessions and a synthesis session with a formator/facilitator from OSCI. The goal of these sessions is for the students to reflect on their experiences to hopefully understand the need for this service. The experiences are also mined in the Accounting class to help explain the financial concepts that the faculty members are teaching. This is also to ensure that what the students are teaching the parents in the community are correct. Moreover, it is hoped that the students are able to reflect on how their course and possible career can be utilized to help the disadvantaged members of our community.

5.2 What Students Say: Disciplinary Training

At the end of each school year, the program is evaluated by getting feedback from most, if not all of its 2,100 students on processes and methodologies and the specific objectives of the various activities. The evaluation is usually conducted at the end of every semester and school year. The students are requested to answer a questionnaire, which asks about the effects of the program in terms of their knowledge, skills and attitudes. It also asks students to evaluate the logistics and methodologies used in class. The results are used by the different offices in preparation for the planning of the activities for the next semester. In between these evaluations are feedback and anecdotes on how the programs have affected the students. The evaluation of last school year's program implementation has been instrumental in the current attempt to expand the integration of service learning to NSTP.

Last School Year's evaluation had around 1,323 students who returned the answered questionnaire. The results showed that 93.3% of the total respondents said that the skills developed in the skills training conducted by their department and the implementers of NSTP were relevant to their community service (NSTP Program Evaluation, 2013). A Development Studies major likes how their NSTP work was along the lines of their discipline—how it provided them with training and practice on skills that they can use. The student believes that the exposure to communities and the administering of the surveys they conducted will help prepare them for course work in their junior and senior years. In addition, since research is one of the options they have after graduation; their NSTP has provided them an experience of an aspect of research work (Ma. Flor Soriano, personal communication, 2012).

Psychology students are excited that their projects in Development Psychology are one with their institution of interest. They look forward to interacting with the children and at the same time being able to relate this to concepts in class (NSTP Program Evaluation, 2013). While formal evaluation for this year has yet to commence, some students have expressed further reflection on how they can utilize their knowledge and skills for the benefit of other people.

Sense of Community

The evaluation results also showed that 95.3% of the students agreed that the program helped them have a sense of community, which was defined as being one with the people that they serve. Moreover, the evaluation showed that the experience has helped students become more sensitive in integrating with the different people they meet in the communities they visit (NSTP Program Evaluation, 2013).

6. CONCLUSION

This paper has been an attempt to show how service learning can be expanded by integrating it with an already existing program, which has goals similar to that of the said approach. In the case of the Ateneo in the Philippines, the integration is done through its NSTP. While the integration may not be applicable to other countries, the documentation of the approach and its modest gains may help other universities set up their service learning initiatives.

Despite its steady expansion for the past three years, there are several challenges in the implementation of the discipline-based and service learning approaches to NSTP but recommendations on how to address these are also given. The first challenge is getting the support and commitment of the administration. While at present, there are already 81% of NSTP students undergoing a discipline-based approach to the program implementation, the journey has not been an easy one (InAF Report, 2014). The plans for the institutionalization of service learning have been discussed for almost a decade. A more systematic and deliberate way of proceeding for second year students was only employed in 2012, when the Vice President for the Loyola Schools announced that the thrust of formation should be towards a tighter integration with the academic disciplines.

The second challenge is the identification of what students can do that is along the lines of their discipline. From informal meetings and brainstorming, it seems that not all departments can easily identify knowledge and skills of second year students that can be of use to partner communities. The challenge could also be seen as the interface of the importance of formation of the Ateneans and the impact of what the students do in the process. The identification of the knowledge and skills could be done by the departments together with the Ateneo offices serving marginalized sectors—this way, departments would have a sense of what the communities need and the Ateneo offices would have an idea of the possible knowledge and skills students have to offer.

The third challenge is the improvement of the quality of service that students give. It is both the mastery of knowledge and skills and the maturity of the second year students that are of concern here. Academic departments have said that second year students are only starting to take subjects that could help them reinforce skills related to their discipline. There are also doubts on whether sophomores can already communicate well with different clienteles. This challenge on the skills has been addressed by some departments through the creation of modules, providing skills training and making themselves more available for consultations. The maturity, especially in dealing with communities, is a skill that can be addressed as early as first year through its formation programs and subjects in the core curriculum. This could be further honed during the course of NSTP.

The integration may be relatively new and thus face challenges but at the same time, it shows a lot of potential for both the formation of the students and the possible developments of marginalized communities and development institutions. As a formation program, the service learning and the discipline-based approaches to NSTP help provide a more relevant and timely education to Ateneo students. This kind of program provides an answer to the question of the youth—what can we do as students? The two takes on the premise that one has to be more aware of his or her strengths, gifts and abilities. With the discipline-based and service learning approaches, one sees how one's discipline and perhaps future profession can help our society.

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The Relationship Among Service Learning, Leadership, Self-Efficacy, and Employability

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ABSTRACT

This paper contributes to the field of Service Learning by providing evidence for the effectiveness of Service Learning programs to increase Taiwanese university students' leadership, self-efficacy and employability. The results of our study suggest that the leadership, self-efficacy and employability of participants of Service- Learning courses at NSYSU could be significantly improved. Furthermore, the leadership and self-efficacy of participants could cause a positive influence on their employability. In addition, we found that participants leadership and employability were strengthened after participants attended Service-Learning programs in a university setting and identifies areas for future research.

Key Words: Service-learning, employability, leadership, self-efficacy

1. INTRODUCTION

This study provides evidence to show that Service-Learning can increase students' employability skills that can help them obtain a job after they graduate from university. We are using *employability* as a term that describes the skills involved in determining, attaining, and maintaining the skills needed to obtain and retain work over a period of time (Romaniuk & Snart, 2000). In our research, these employability skills include Problem-Solving Skills, Communication Skills, Teamwork Skills, Change and Innovation Behavior, Ability to Manage Self, and Being Civic-minded. Specifically, we measured the ability of Service-Learning courses to increase students employability skills as well as two areas that have proved in increase employability: leadership and self-efficacy.

Leadership is an important factor in determining a person's employability. This is because researchers and scholars have found correlations between leadership and employability, since leadership is a basic-needed skill of employment (Dobosz & Beaty, 1999; Zinser, 2003). This means students at universities need to be equipped to be leaders in the workplace. We are using *leadership* to mean a process of social influence in which one person is able to enlist the aid and support of others in the accomplishment of a common task (Chemers, 1997). We also include the four central ideas of leadership which are: (a) leadership is a process (b)

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leadership involves influence (c) leadership occurs in groups (d) leadership involves common goals (Northouse, 2012). All of these qualities of leadership contribute to employability since students will be working in an increasingly global economy that requires workers to handle change and work towards a common goal.

Self-efficacy is also an important factor that determines employability. Several researchers have argued that employability is largely dependent on self-efficacy (Bandura, 1997; van der Velde & van den Berg, 2003; Berntson, Na swall & Sverke, 2008). Past studies have also shown that self-efficacy is associated with university students' job search behavior and employment outcomes (Berntson, Na swall & Sverke, 2008; Piquart, Juang & Silbereisen, 2003). *Self-efficacy* is a measure of people's beliefs in their capabilities to perform a specific action to attain the desired goals and outcome expectancies (Bandura, 1977). This is important for employability because obtaining and maintaining a job requires students to believe in their own abilities and to be able to achieve the companies goals. Self-efficacy also reflects an optimistic self-belief that meant one could overcome difficult tasks, or cope with adversity (Schwarzer, 1992). Ultimately, these are skills any student needs to succeed in the workforce and increase their chances of obtaining and maintaining full-time work when they graduate.

Service-Learning has been shown to increase both leadership competencies and self-efficacy. Previous literature also shows that Service-learning has influence on the development of leadership competencies (Grow, Stallwood, & Daniels, 2011; Turner, Cynthia, & Johnston, 2012; Newman & Peter, 2007). Furthermore, previous research shows how Service-Learning has a positive influence on the development of students' self-efficacy (Reeb, Folger, Langsner, Ryan, & Crouse, 2010; Wong, Lau, & Lee, 2012). However, no research-based studies were found measuring the effectiveness of Service-Learning to increase students' leadership abilities and self-efficacy in an Asian university.

With the demand for high quality human resources in Taiwan and across Asia, and the high unemployment rate in Taiwan, many universities have started using Service-Learning as a means to improve students' core competencies in responding to the needs of industries (Furci, 2003; Keen & Hall, 2009). Recently, Taiwan's Ministry of Education allocated a significant amount of resources to facilitate the development of Service-Learning courses in higher education (Ministry of Education, 2009). Most universities in Taiwan do not require any Service-Learning courses, but NSYSU is the first university in Taiwan to require 1 credit of Service-Learning to all students who are sophomore or above. National Sun-yat Sen University (NSYSU) has developed a series of Service-Learning courses that cover many topics that include public art, teenager education, marine protection, environmental protection, and global vision.

The goal of the Service-Learning program at NSYSU is to enhance students' employability skills so that students' can obtain and maintain full-time jobs when they graduate. This is the first research-based study of the Service-Learning program. The study sought to measure the effectiveness of Service-Learning courses on improving students' leadership competencies and self-efficacy in order to enhance their employability.

2. THE HYPOTHESES OF THIS STUDY ARE AS FOLLOWS

H1: Service-Learning courses will improve students' leadership competencies.

H2: Service-Learning courses will improve students' self-efficacy.

H3: Service-Learning courses will improve students' employability.

H4: Students' self-efficacy is positively associated with their employability.

H5: Students' leadership is positively associated with their employability.

3. MEASUREMENTS

In order to test these hypotheses, a research project was conducted with undergraduate students at National Sun-yat Sen University during Fall 2013. The purpose of this study was to assess the effectiveness of the NSYSU Service Learning courses in achieving the goal of increased employability. The study was accomplished by administering a pretest and posttest to 106 students in Service-Learning courses in Fall 2013. Each test included three self-assessment surveys in the areas of leadership, self-efficacy, and employability.

To measure students' leadership the Leadership Practices Inventory (LPI) was used. The LPI is a five part structure with twenty-seven questions measuring key aspects of leadership. Each part includes four to six questions. The five factors are: (1) modeling the way, (2) inspiring a shared vision, (3) challenging the process, (4) enabling others to act, and (5) encouraging the heart (Kouzes & Posner, 1983). To measure students' self-efficacy, the General Self-Efficacy Scale (GSES) was utilized. The GSES uses ten questions measuring the participant's perceived self-efficacy (Schwarzer & Jerusalem, 1995). Finally, to measure students' employability a survey was adapted based on Jill Arensdorf's 2009 study of the Fort Hays State University (FHSU) Leadership Studies Certificate Program (Arensdorf, 2009). The survey consists of sixty-nine items measuring six main factors of employability skills. The six factors are: (1) problem-solving skills, (2) communication skills, (3) teamwork skills, (4) change and innovation behavior, (5) ability to manage self, and (6) civic mindedness. Question numbers ranged from six (civic mindedness) to twenty-three (change and innovation behavior). All of these questions were based on scales ranging from 1 (strongly disagree) to 6 (strongly agree).

4. DATA COLLECTION AND ANALYSIS

The participants are undergraduates of NSYSU who participated in Service-Learning courses during the fall semester of 2013 (e.g., Public Arts and Service-Learning; Social Care and Service-Learning). A pre and a posttest survey was conducted at the beginning and at the end of the courses. A total of 106 students participated, with a total of 85 valid respondents completing both surveys. The demographics of the students are shown in Table 1.

Attributes	Options	%	Attributes	Options	%	Attributes	Options	%
Gender	Male	70.6	Club	No	35.3	Work Experience	None	40
	Female	29.4	Experience	Yes	64.7		1 Year	58.8
Grade	Freshman	1.2	Leader	No	63.5		2 Years	1.2
	Sophomore	82.4	Experience	Yes	36.5			
	Junior	10.6	Leader	No	63.5			
	Senior	5.9	Experience	Yes	36.5			

Table 1: Demographics of Samples (N=85)

After the posttest surveys were completed the data was analyzed. Based on support from the literature review, we used a one-tailed, dependent-sample t test to evaluate H1, H2, and H3, and applied multiple regressions to the data for H4 and H5. SPSS software was employed for statistical analysis.

5. RESULTS

Table 2 shows the results of students' self-efficacy, leadership and employability between pretest and posttest. Leadership is 4.54 in pretest and 4.65 in posttest. The difference for

leadership is .11. Self-efficacy is 4.26 in pretest and 4.44 in posttest. The difference for self-efficacy is .18. Employability is 4.42 in pretest and 4.55 in posttest. The difference for employability is .13. the results prove that students' self-assessment of their leadership, self-efficacy, and employability all increased by participating in Service-Learning courses at National Sun-yat Sen University. The results also support our hypothesis that Service-Learning would improve students' leadership competencies (H1), self-efficacy (H2), and employability (H3).

Variables	Pretest Mean	Posttest Mean	Post-Pre (SE)	P-value
Leadership	4.54	4.65	.11 (0.06)	.044
Self-Efficacy	4.26	4.44	.18 (0.07)	.009
Employability	4.42	4.55	.13(0.05)	.010

Table 2: Results of pretest and posttest (one tailed, paired t-test)

Table 3 shows the results of the two multiple regressions of pretest and posttest data used for H4 and H5. The dependent variable for each regression model is employability while the controlling variables are gender, grade, work experience, club experience, leadership experience, and service learning experience. The results show that leadership is associated with employability in pre (beta=.069, $P < .01$) and post model (beta=.660, $p < .01$). Moreover, self-efficacy is not associated with employability in pre model (beta=.174, $p > .05$), but is associated with employability in post model (beta=.248, $p < .01$). According to this finding, self-efficacy and leadership are both important mediating factors of employability. These finding support the hypotheses that students' leadership (H4) and self-efficacy (H5) are positively associated with their employability.

Variables	Pretest (Beta)	Posttest(Beta)
Constant	0.525	0.321
Gender	0.046	0.031
Grade	0.024	0.026
Work Experience	0.003	0.074
Club Experience	-0.016	-0.100
Leader Experience	-0.104	0.013
Service Learning Exp.	0.054	0.032
Self-Efficacy	0.174	0.248**
Leadership	0.696**	0.666**
R ²	0.735	0.799
ΔR^2	0.601	0.695
F	26.320**	37.791**
Df	84	84

** $p < .01$

Table 3 Results of regression analysis (DV: employability)

6. DISCUSSION

The purpose of this study was to examine the impact of Service Learning courses on students' leadership competencies, self-efficacy, and employability. The data contributes important

discussions regarding the effectiveness of the Service Learning program at NSYSU in achieving its goals of student employability, the value of Service Learning courses within the wider university system, and the importance of increasing the number of Service Learning programs in other top Asian universities.

The data from this study is helpful in determining whether the Service Learning program at NSYSU is achieving its goal of increasing students' employability. However, there are limitations that restrict what this study can say about increasing students' employability. This is because it is difficult to predict students' ability to obtain a job given the sample used in this study since the majority of students who participated in the study were young sophomores (82.4%), had no leadership experience (63.5%), and had one year of working experience or less (98.8%). Therefore, rather than employability meaning students obtaining actual jobs, this study measures the effectiveness of Service Learning courses in increasing students' employability *competencies*—characteristics proven to increase one's chances in obtaining and maintaining a job in the future. Given this criteria, the data shows that within one semester these same young and inexperienced students were able to increase their leadership competencies by .11, employability by .13, and self-efficacy by .18. Therefore, students with little to no leadership or work experience achieved a significant increase in their employability competencies through Service Learning courses. This data also suggests that core competencies needed in the workplace can be taught in a university. What does this mean for the value of Service Learning courses in a university setting?

One value of Service Learning courses in a university setting is the increase of students' self-efficacy. As previously stated, self-efficacy reflects an optimistic self-belief that means one could overcome difficult tasks, or cope with adversity (Schwarzer, 1992), and self-efficacy has shown to be associated with university students' job search behavior and employment outcomes (Berntson, Naswall, & Sverke, 2008; Pinquart, Juang, & Silbereisen, 2003). Therefore, in order to help students succeed in obtaining jobs upon graduation, universities can equip students with stronger self-efficacy competencies. Based on our results, Service Learning courses prove to be the place where students experience significant growth in this area. How can universities in Taiwan and across Asia strengthen students' self-efficacy and employability? Generally, they can increase their support for Service Learning programs and courses, request more government support of Service Learning programs, and through incorporating Service Learning pedagogy into other disciplines and university programs. Specifically, they can increase research into the area of self-efficacy and Service Learning and develop self-efficacy resources for students throughout the university system.

7. CONCLUSION

The discussion leads to three conclusions. First, more research is needed on Service Learning in Asian university settings. Due to the limitations of this study such as not having a control group, only using self-assessments, and not surveying employers' perceptions of employability, future research should improve in these areas and provide stronger evidence for the impact of Service Learning on leadership, self-efficacy, and employability. Potential research questions could be why Service Learning increased self-efficacy more than leadership competencies and how students who take Service Learning courses compare to those who did not in obtaining jobs after they graduate. Second, the research this study conducted ought to increase the value of Service Learning for students who wonder whether the courses are important for their education. Finally, we believe the future of Service Learning ought to be bright in Taiwan because there is now research-based evidence to show how it can significantly impact students' employability potential in a Taiwanese university setting.

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The Long-term Impact of Service-Learning on Graduates' Whole Person Development, Civic Engagement and Career Exploration in Hong Kong

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ABSTRACT

Service-Learning (S-L) is a new pedagogy in Hong Kong and so far there is no study about the long-term impact of S-L, especially for graduates. To explore the impacts of S-L on Hong Kong students, a quantitative study was conducted in 2011. In this research, alumni with S-L experience were compared to students without S-L experience in terms of three domains, namely: 1) Adaptability, Brain Power and Creativity (ABC) skills, 2) Civic Responsibility and 3) Career Exploration. The most prominent finding of the study is that students with S-L experience scored significantly better in the category of Civic Responsibility than their counterparts without S-L experience. Students with S-L experience are more willing to be involved in community services after graduation and invest more hours of service per month. For Career Exploration, there is no specific difference in terms of salary or job position between alumni with S-L experience and those without, but it is significant that there is higher impact of the career choice by alumni with S-L experience than alumni without S-L experience. In general, those students involved in S-L have got better ABC skills, which are skills for whole person development, especially in communication, problem-solving and research skills. According to the research findings, S-L as a factor for developing students' civic responsibility is more effective than community service experience in the long run, and it asserts the great importance of S-L programmes not only for participating students, but also for society as a whole.

Key Words: Service-Learning, Long-term Impact, Graduate, Civic Engagement, Hong Kong

1. INTRODUCTION

Service-Learning (S-L) is a relative new pedagogy introduced into the Hong Kong Higher Education. To understand its continuous effect for students' development, the long-term impact of S-L on students (especially for graduate students) is limited and needed in

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Hong Kong, as most of local S-L researches focus on the implication and evaluation of S-L programme (Chan et al, 2006 & 2009; Ngai, 2006 & 2009; Powers, 2010). Lingnan University is the only liberal arts university in Hong Kong that emphasizes students' whole person development and civic engagement. The Office of Service-Learning (OSL) was established in Lingnan University in 2006, thus establishing Lingnan as the first university in Hong Kong to have an office dedicated to cultivating S-L, and echoing the Lingnan motto, "Education for Service". OSL has conducted different researches to investigate the suitable S-L model for Lingnan (Chan et al, 2006 & 2009; Ma & Chan, 2013) and students' learning outcome. A five-year study from the academic year of 2006-07 to 2010-11 was conducted in 2011 with 1440 students who had S-L experience. The findings show that the students had significant improvement in the six whole person development's domains (i.e. subject-related knowledge, communication skills, organizational skills, social competence, problem-solving skills and research skills). Therefore, Lingnan is a suitable case for investigating the S-L impact on graduates because of its good track record on students' learning outcome. Thus, two surveys were conducted in 2011 in order to investigate the long-term S-L impact on graduates' whole person development (ABC skills), civic responsibility and career exploration. Questionnaires from 425 and 345 alumni with and without S-L experience, respectively, acquired during their university study from 2005 to 2010 were collected in April 2011 (Phase I) and November 2011 (Phase II).

2. OBJECTIVES

This study aims to compare and summarize the findings of the above two phases with the following objectives:

1. to examine the long-term effects of S-L among graduates;
2. to explore the long-term impact of students' learning outcomes; and
3. to study the influence of S-L on civic responsibility and career exploration among graduates.

3. METHODOLOGY

A quantitative study was conducted in two phases (experimental group Vs control group) for exploring the long-term impacts of S-L on Hong Kong students.

Purposive sampling, which is a data collection method in which elements are chosen based on the purpose of the study and will target a particular group of people (Bernard et al, 1986 and 2002; Ma, 2007), was applied in both phases because of the known sampling frame and a goal of generating highest possible response rate. Finally, 425 alumni with S-L experience (experimental group) and 345 alumni without S-L experience (control group) were invited to complete a questionnaire either through phone or by email in April 2011 and September 2011.

Two sets of quantitative questionnaires were designed to understand the long-term impacts of S-L among graduates with and without S-L experience. The core questions of the questionnaire were mainly formed by closed-ended & scaled questions, systematically divided into three parts: Learning Outcomes for whole person development (Adaptability, Brain Power and Creativity (ABC) skills) (14 items), Civic Responsibility (23 items), and Career Exploration (4 items). Each part was based on a well-justified and validity-proven scale used in previous studies (Chan et al, 2006; Furco et al, 1998; Furco, 1997; Merrell, 2002; National S-L Cooperative, 1999). The evaluation parts of S-L or reasons for not joining S-L were added in open-ended questions to the applicable questionnaire based on the target group.

SPSS was used for data analysis especially for running T-test and Pearson correlation.

4. DEMOGRAPHIC CHARACTERISTICS

Alumni with and without S-L experience completed 425 and 345 valid questionnaires respectively. Diverse characteristics in gender, academic background, working and community involvement were found between these two groups of alumni (See Table 1).

	Participated in S-L		Did not participate in S-L		Total	
	N	Percentage	N	Percentage	N	Percentage
Gender						
Male	119	28.0%	151	43.8%	270	35.1%
Female	306	72.0%	194	56.2%	500	64.9%
Degree						
BA	32	7.5%	24	7.0%	56	7.3%
BSS	178	41.9%	104	30.1%	282	36.6%
BBA	215	50.6%	217	62.9%	432	56.1%
Year of Graduation						
2005	38	8.9%	55	15.9%	93	12.1%
2006	33	7.8%	13	3.8%	46	6.0%
2007	62	14.6%	61	17.7%	123	16.0%
2008	97	22.8%	74	21.4%	171	22.2%
2009	100	23.5%	59	17.1%	159	20.6%
2010	95	22.4%	83	24.1%	178	23.1%

	Participated in S-L		Did not participate in S-L		Total	
	N	Percentage	N	Percentage	N	Percentage
GPA						
Below 1	0	0	0	0	0	0
1 – 1.49	1	0.2%	0	0	1	0.1%
1.5 - 1.99	6	1.4%	4	1.2%	10	1.3%
2 - 2.49	92	22.1%	59	17.1%	151	19.8%
2.5 – 2.99	193	46.4%	176	51.0%	369	48.5%
3 – 3.49	109	26.2%	95	27.5%	204	26.8%
3.5 – 4	15	3.5%	11	3.2%	26	3.4%
		2.78 (M)		2.80(M)		2.79 (M)
		0.39(SD)		0.37 (SD)		0.38 (SD)

Current Job

Management	47	11.1%	45	13.0%	92	12.0%
Professionals	61	14.4%	80	23.2%	141	18.5%
Associate Professionals	226	53.2%	74	21.4%	300	39.3%
Clerks	42	9.9%	72	20.9%	114	14.9%
Service workers	24	5.6%	52	15.1%	76	9.9%
Craft workers	0	0.0%	1	0.3%	1	0.1%
Machine operators	0	0.0%	2	0.6%	2	0.3%
Elementary occupations	0	0.0%	1	0.3%	1	0.1%
Graduate Students	12	2.8%	5	1.4%	17	2.2%
Not active paid labour/job search	3	0.7%	2	0.6%	5	0.7%
Unemployed	4	0.9%	9	2.6%	13	1.7%
Others	0	0.0%	2	0.6%	2	0.3%

Time taken for seeking first job

3 months or below	374	90.6%	305	88.4%	679	89.6%
4 – 6 months	36	8.7%	21	6.1%	57	7.5%
7 –12 months	3	0.7%	14	4.1%	17	2.2%
more than 12 months	0	0.0%	5	1.4%	5	0.7%
Average time taken for seeking first job		1.8 (M)		2.2(M)		2.0 (M)
		1.5(SD)		2.6(SD)		2.1(SD)

Working experience

12 months or below	111	26.1%	55	15.9%	166	21.9%
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	Participated in S-L		Did not participate in S-L		Total	
	N	Percentage	N	Percentage	N	Percentage
13-24 months	93	21.9%	83	24.1%	176	23.2%
25-36 months	95	22.4%	63	18.3%	158	20.9%
37-48 months	57	13.4%	71	20.6%	128	16.9%
49-60 months	35	8.2%	30	8.7%	65	8.6%
more than 60 months	22	5.2%	42	12.2%	64	8.5%
Average working experience		28.7(M)		33.1(M)		30.7(M)
		18.8(SD)		20.6(SD)		19.8(SD)
Salary						
\$8,000 or below	8	2.0%	10	2.9%	18	2.4%
\$8,000-9,999	58	14.6%	45	13.1%	103	13.9%
\$10,000-11,999	90	22.6%	23	6.7%	113	15.2%
\$12,000-13,999	78	19.6%	25	7.2%	103	13.9%
\$14,000-15,999	49	12.3%	70	20.4%	119	16.1%
\$16,000-17,999	35	8.8%	76	22.2%	111	15.0%
\$18,000-19,999	20	5.0%	58	16.9%	78	10.5%
\$20,000 or above	60	15.1%	36	10.5%	96	13.0%
Still involved in Community service?						
Yes	126	29.8%	99	28.7%	225	29.3%
No	297	70.2%	246	71.3%	543	70.7%
Average number of service hours per month		6.3(M)		5.5 (M)		6.0 (M)
		16.6 (SD)		7.1 (SD)		13.2(SD)

Table 1: Demographic data of Respondents

Considering gender, in general, there were more female respondents (64.9%, N=500) than male respondents (35.1%, N=270), which is similar to the sex ratio in Lingnan. In comparison, alumni with S-L experience (Male 28.0%: Female 72.7%) had greater difference in sex ratio than alumni without S-L experience (Male 43.8%: Female 56.2%).

Regarding the academic background, in general, the majority of the respondents graduated with a degree in Business Administration (BBA) (56.1%, N=432). In comparison, more alumni with S-L experience (41.9%, N=178) were graduated with a degree in Social Sciences (BSS) than alumni without S-L experience (30.1%, N=104). In addition, most respondents reported that they had a GPA (Grade Point Average) ranging from 2.5 to 2.99 (48.5%, N=369). In terms of the GPA, alumni without S-L experience

had a higher GPA (M: 2.80, SD: 0.37) than alumni with S-L experience (M: 2.78, SD: 0.39). However, alumni with S-L experience had the higher proportion of GPA 3.5-4 (3.5%, N=15) than alumni without S-L experiences (3.2%, N=11).

With respect to work, the differences in current job, time taken in seeking their first job, working experience and salary were investigated. For the current job, the top three occupation categories for alumni with S-L experience were: associate professionals (53.2%, N=226), professionals (14.4%, N=61) and management (11.1%, N=47). In contrast, the top three occupation categories for alumni without S-L experience were: professionals (23.2%, N=80), associate professionals (21.4%, N=74) and clerks (20.9%, n=72). The alumni with S-L experience (M: 1.8, SD: 1.5) reported using shorter time to get the first job than those without (M: 2.2, SD: 2.6). The alumni without S-L experience had longer average working experience (M: 33.1, SD: 20.6) than alumni with S-L experience (M: 28.7, SD: 18.8), therefore, more alumni without S- L experience reported a higher salary than alumni with S-L experience in the salary group of \$16,000 to \$19,999. However, more alumni with S-L experience (15.1%, N=60) than alumni without (10.5%, N=36) in the salary group \$20,000 or above were found.

For community service, similar percentages of graduates who were still involved in community service were found among alumni with S-L experience (29.8%, N=126) and those without (28.7%, N=99). Alumni with S-L experience were more willing to be involved in community service and they (M: 6.3, SD: 16.6) reported having higher average number of service hours per month than alumni without S-L (M: 5.5, SD: 7.1). Furthermore, 50.4% of the respondents in the control group (N=174) reported that they were involved in community service during their undergraduate years.

5. CORRELATION AMONG SCALES

To start the analysis, the reliability of the main measurement scales of the impact study was tested, including the scales of ABC skills (14 items), Civic Responsibility (23 items) and Career Exploration (4 items). The reliability of ABC skills and Civic Responsibility was satisfying in terms of internal consistency, with reported Cronbach alpha coefficient of 0.90 and 0.95, respectively. For Career Exploration, the Cronbach alpha coefficient was 0.52 that indicated poor internal consistency (a value more than 0.7 is acceptable), was found. However, if one question was deleted, the alpha would rise to 0.65, although still remaining at an unacceptable level. As Cronbach alpha values are quite sensitive to the number of items in the scale, the mean inter-item correlations (0.27) should instead be used as the indicator of the internal consistency for scale with fewer than 10 items (0.2 to 0.4 is acceptable). (See Table 2)

Instruments	Items	N	Alpha	Inter-Item correlations
ABC Skills				
Communication skills	3	768	0.78	-
Organization skills	3	766	0.74	-
Social Competence	3	767	0.80	-
Problem Solving	3	767	0.64	0.38
Research skills	2	768	0.70	-
Overall	14	763	0.90	-
Civic Responsibility				
Connection to Community	4	769	0.79	-
Civic Awareness	9	768	0.89	-
Civic Efficacy	10	766	0.89	-
Overall	23	765	0.95	-
Career Exploration				
Learning impacts on students	3	769	0.47	0.30
Career Development	1	-	-	-
Overall	4	769	0.52	0.27

Table 2: Reliabilities of the Three Measurement scales

6. FINDINGS

In this research, alumni with S-L experience were compared to alumni without S-L experience in terms of three domains, namely: 1) ABC skills, 2) Civic Responsibility and 3) Career Exploration. The independent-samples T-test was employed to compare the continuous variable (mean scores) for two different groups (alumni with vs without S-L experience) (Pallant, 2010). A significant difference was found in the ABC Skills ($t=2.82$, $p<.01$), Civic Responsibility ($t=6.57$, $p<.001$) and Career Exploration ($t=2.18$, $p<.05$) between the alumni with and without S-L experience (see Table 3). Also, the alumni with S-L experience reported higher mean scores of ABC skills, Civic Responsibility and Career Exploration than alumni without S-L experience.

	Joined S-L			Did not join S-L			Differences	T-test	
	N	Mean	SD	N	Mean	SD		T	p
ABC Skills									
Communication skills	424	7.40	1.21	345	7.09	1.43	0.31	3.21***	0.001
Organization skills	424	7.32	1.10	345	7.25	1.30	0.07	0.78	0.436

	Joined S-L			Did not join S-L			Differences	T-test	
	N	Mean	SD	N	Mean	SD		T	p
Social Competence	424	7.58	1.09	345	7.45	1.36	0.13	1.41	0.158
Problem Solving	424	7.21	1.05	345	6.98	1.18	0.24	2.92**	0.004
Research skills	424	6.77	1.26	345	6.43	1.61	0.34	3.17**	0.002
Overall	424	7.29	0.93	345	7.08	1.09	0.21	2.82**	0.005
Civic Responsibility									
Connection to Community	424	6.20	1.33	345	5.47	1.66	0.74	6.71***	0.000
Civic Awareness	424	6.28	1.25	345	5.69	1.52	0.58	5.73***	0.000
Civic Efficacy	424	5.21	1.31	345	4.55	1.59	0.66	6.23***	0.000
Overall	424	5.80	1.20	345	5.16	1.47	0.65	6.57***	0.000
Career Exploration									
Learning impacts on students	424	6.37	2.07	345	5.98	1.73	0.40	2.83**	0.005
Career Development	424	7.19	1.57	345	7.35	1.92	-0.16	-1.26	0.209
Overall	424	6.58	1.69	345	6.32	1.56	0.26	2.18*	0.030

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

*** Correlation is significant at the 0.001 level (2-tailed).

Table 3: Comparison of ABC model, Civic responsibility and Career Exploration in participants and non-participants of S-L (1= totally disagree, 10= totally agree)

The most prominent finding of the study is that alumni with S-L experience had significantly better scores in the category of Civic Responsibility than their counterparts without S-L experience. The former were more willing to get involved in community services after graduation and investigated more hours of service per month (alumni with S-L experience: $M=6.3$, $SD=16.6$; alumni without S-L experience: $M=5.5$, $SD=7.1$). They also had significantly higher mean scores in all civic domains, including connection to community ($M_{\text{with S-L experience}}=6.20$, $M_{\text{without S-L experience}}=5.47$, $t(767)=6.71$, $p<.001$), civic awareness ($M_{\text{with S-L experience}}=6.28$, $M_{\text{without S-L experience}}=5.69$, $t(767)=5.73$, $p<.001$) and civic efficacy ($M_{\text{with S-L experience}}=5.21$, $M_{\text{without S-L experience}}=4.55$, $t(767)=6.23$, $p<.001$).

For Career Exploration, there was no specific difference in terms of salary or job position between alumni with S-L experience and those without, but the perceived impact on career skills development was significantly higher among the former than the latter. ($M_{\text{with S-L experience}}=6.37$, $M_{\text{without S-L experience}}=5.98$, $t(767)=2.83$, $p<.01$).

In general, those students involved in S-L had better ABC skills, especially in

communication ($M_{\text{with S-L experience}}=7.40$, $M_{\text{without S-L experience}}=7.09$, $t(767)=3.21$, $p<.001$), problem-solving ($M_{\text{with S-L experience}}=7.21$, $M_{\text{without S-L experience}}=6.98$, $t(767)=2.92$, $p<.01$) and research skills ($M_{\text{with S-L experience}}=6.77$, $M_{\text{without S-L experience}}=6.43$, $t(767)=3.17$, $p<.01$).

Finally, small, positive and significant correlations were found between participation in S-L and ABC skills ($r=0.10$, $p<0.01$), civic responsibility ($r=0.24$, $p<0.001$) and career exploration ($r=0.08$, $p<0.05$) respectively. (See table 4)

	Participated in S-L	ABC skills	Civic responsibility
Participation in S-L	-		
ABC skills	.10**	-	
Civic responsibility	.24***	.42***	
Career Exploration	.08*	.46***	.60***

* Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed).

*** Correlation is significant at the 0.001 level (2-tailed).

Table 4: Pearson correlation matrix of the participation in S-L, ABC skills, civic responsibility and career exploration

7. CONCLUSION

In summary, this study displays that the participants benefited in a long-term perspective from incorporating S-L to their studies. It includes---but not limited to---having greater civic responsibility, better career exploration and enhanced whole person development in ABC skills. According to the research findings, S-L as a factor for developing students' civic responsibility in the long-term is more effective than community service experience, and it asserts the great importance of S-L programmes, not only for participating students, but also for society as a whole.

Although there were no significant difference in salary and position between alumni with S-L experience and alumni without S-L experience, the study indicated that S-L helped students to develop their skills, in particular communication, problem-solving and research skills for future careers and also affected students' career choices (Astin & Vogelgesang, 2000; Astin, Vogelgesang, Ikeda, Yee, 2000). As S-L is a new pedagogy in Hong Kong, the majority of alumni with S-L experience had only 1-2 years working experience in this study. Therefore, a second impact study is needed to compare the difference between alumni with and without S-L experience in relatively longer periods (ie.5-7 years), which allows the alumni enough time to develop their career. On the other hand, further studies on S-L long-term impact on graduates are also needed to determine what specific elements of S-L experience contribute to these areas of growth in the future.

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Session 2

Engineering & Technology

COMMUNITY LEARNING CENTRES: PARTNERS FOR UNIVERSITIES AND ICTD SERVICE-LEARNING

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ABSTRACT

The movement to establish community learning centres in Asia along with a major effort to introduce courses in information and communication technology for development in university curricula present an opportunity for developing scenarios for building partnerships for service-learning initiatives.

Key Words: partnerships, communication, development, learning centres

1. INTRODUCTION

Establishing partnerships is a major priority in setting up service learning programs. This paper suggests that community learning centres in Asia are particularly good candidates as partners in service learning programs related to information and communication technologies for development (ICTD). We start by identifying several important movements related to this issue.

We focus on communication and development particularly because of the energy being applied to encourage universities in the Asia and Pacific region to introduce academic programs related to information and communication technologies for development — and because of the priority being given to information technologies by national and international agencies. A brief story from India sets the stage for the discussion that follows.

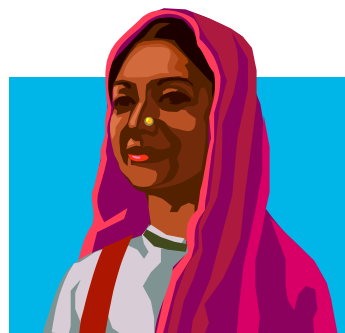
This is the story of Luva, a farm woman in India. Luva dreaded the 100-mile drives to the marketplace to sell her crop. The long trips were not only exhausting but often resulted in a financial loss when she could not sell her crop there. Other farmers experienced the same difficulty and frustrations — and losses. But this is not a tragic story, it is a success story as reported by the Education Development Center's Health and Human Development Division (UNESCO, 2011) As you read it, imagine how a group of university students might contribute to such an activity.

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Education Development Center, in partnership with Hewlett Packard, manages a local community education center in India that specializes in information and communication technology (ICT) training. It trains aspiring women entrepreneurs to use ICTs. One of its collaborating organizations is a local non-profit training organizations, the Self-Employed Women's Association (SEWA). SEWA has trained some five thousand women workers from rural areas in core computer skills to help them find jobs, become self-reliant, and overcome traditional gender-associated constraints. SEWA's ICT training has benefited the lives of many women and girls, including Varshaben Luva, who comes from the rural village of Kalol in western India.

Luva is one of a growing number of women in India breaking through traditional gender roles by starting her own business. After attending an ICT training session at SEWA, Luva was able to combine her new information technology skills with her background in agriculture to start her own text messaging business for farmers. Luva goes to SEWA on a daily basis to do online research of markets and prices of commodities. Then she sends daily text messages about current market prices to farmers who pay her 50 rupees (approximately US\$1) a month.

Because of Luva's new text messaging business, farmers can now decide whether it's worth transporting their crops — mostly cotton and corn — to a market that day. With 80 or more clients in the Mehsana District of Gujarat State, Luva's business continues to thrive. The case demonstrates that ICT education can make a significant impact on rural women and girls like Luva, who can use their new ICT skills not only to make a living for themselves, but also to have a larger impact in their communities. In Luva's case, there was not an obvious need for her ICT market information business, but apparently her workshop training inspired the innovation. So one of the opportunities and challenges for university students is to make more visible to those in a community like Luva's the potential and power of ICTD. And this becomes especially possible in the context of community learning centers.



2. COMMUNITY LEARNING CENTRES

Nations throughout Asia have created community learning centers (CLCs). The surge in the past decade has resulted, in part, from UNESCO's program called APPEAL (APPEAL, n.d.). However, such local centers have a longer history. Take the case of Nepal where there are CLCs spread across the country (UNESCO, n.d.,a) The idea of creating these centers in Nepal goes back to the 1980s. As UNESCO explains:

Under the SERD project, about 154 village reading centres were established across the country to provide community-based post-literacy and continuing education training programmes. The village reading centre concept was later refined, revitalised and further broadened from a 'reading' centre to a 'community learning' centre following the introduction and implementation of the Basic and Primary Education Project (BPEP I, 1992–1998) by the Government of Nepal.

The CLC program in Nepal targets out-of-school children, youth and adults from marginalized rural and urban communities. Through various government processes and international funding, Nepal established more than 800 CLCs and had the ambitious goal of establishing one in every village. As in other countries, nearly all CLCs in Nepal were established and are being managed by the local people. In 2013 there were CLCs in the following Asia-Pacific Region countries: Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Iran, Japan, Kazakhstan, Korea, Kyrgyz Republic, Lao PDR, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Samoa, Sri Lanka, Thailand, Uzbekistan, Vietnam. There may be as many as 170,000 CLCs in the Asia-Pacific Region, some established by governments, some by non-governmental organizations, and most operated by local communities. It is important to note that these CLCs — with their commitment to non-formal education, life-long learning, and development — represent potentially useful partners for university service-learning programs.

To summarize: existing community learning centers (with various titles) provide a good starting place for identifying partners for universities that chose to adopt a service-learning pedagogy in an ICTD-related course or academic program. The reasons for starting with these as potential partners include the following: there are many CLCs in rural areas where the development needs are greatest; CLCs promote a variety of development issues such as those emphasized by the world's Millennium Development Goals (MDG); many CLCs are in areas where they can support food production; they are an appropriate place for giving communities access to ICTs; and CLCs are often linked to government policies supporting development.

3. THE ICT PRIORITY

Another important movement related to our theme is related to the digital world. Since the early 1990s, there has been widespread recognition of the increasing importance of information and communication technologies in the everyday lives of people across the world. A major thrust toward recognizing the great potential of these ICT initiatives came from the eight major industrial nations (the G8) who in the year 2000 asserted that information and communication technologies can be is one of the most potent forces in

shaping the 21st century. The G-8 noted that the revolutionary impact of ICTs affects the way people live, learn and work, and the way government interacts with civil society. Then later a major impetus was the two-phase World Summit on the Information Society in Geneva (December 2003) and Tunis (November 2005) which prompted many international organizations to come forward with ideas, plans, and programs for using ICTs to meet the Millennium Development Goals. Note especially the Stocktaking process organized by the International Telecommunications Union (International Telecommunications Unions, 2012, 2014; Grimshaw & Kala, 2011). *WSIS Stocktaking* was launched in October 2004 and continues today with 17 winners awarded prizes in June 2014 in recognition of their outstanding contribution towards strengthening the implementation of Outcomes of the World Summit on the Information Society. Its aim is to provide a register of ICT development activities carried out by governments and international organizations. The importance of ICTs in development is further reflected in publications becoming available on the internet. Note for example, two major publications by the World Bank: *Maximizing Mobiles* (World Bank 2012) and *ICT in Agriculture, Connecting Smallholders to Knowledge, Networks and Institutions*. (World Bank 2011) More than 160 countries and territories have developed strategies to promote the use of information and communication technologies for development. The latter is a 400-page source book aimed at helping practitioners and policy-makers take maximum advantage of ICTs' potential for improving agricultural productivity and smallholders' income

Despite the official enthusiasm about the potential of ICTs, it is generally acknowledged that government officials and other leaders know little about how to build ICTs into their everyday activities. For example, the biggest challenge facing the developing countries of the Asia-Pacific countries in introducing digital technologies in all spheres of life is not the technologies themselves, nor issues associated with infrastructure, connectivity or access – but the fact that most countries in the region lack the technical human capital that is required to use these tools and technologies effectively. To have a successful ICT intervention requires skillful communication *planners and strategists*. Thus the Action Plan of the WSIS called for creating a critical mass of skilled ICT professionals and experts dedicated to development-related issues and institutions. (International Telecommunication Unions 2003) And this is our clue to begin to link service learning at universities with development communication and with community learning centers.

4. ICTD AND UNIVERSITIES IN ASIA AND THE PACIFIC REGION

The United Nations through its ESCAP program based in Bangkok created the Asia and Pacific Training Centre for Information and Communication Technology for Development (APCICT). Among its programs is the 'Turning Today's Youth into Tomorrow's Leaders'

program. One of its major efforts is to create a cadre of *future leaders* (that is, current students) able, through undergraduate and graduate training, to use ICTs for achieving development goals. Thus, APCICT encourages and assists universities to introduce university courses that focus on ICTs for development. A major resource is its publications called the Primer Series. These focus on development, social media, disaster risk management, and climate change — and their relation to ICTs. An indication of APCICT's progress is reflected in the adoption of its Primer Series in 15 countries/sub-regions throughout the Asia-Pacific region. This includes Azerbaijan, Cambodia, China, India, Indonesia, Kazakhstan, Kyrgyzstan, Maldives, Mongolia, the Philippines, Sri Lanka, Tajikistan, Uzbekistan, ASEAN sub-region, and the Pacific sub-region. (APCICT, n.d.)

The potential importance and logic of involving youth in ICTD initiatives is almost intuitive because of their involvement all over the world with social media. It was put into words at a 2014 APCICT workshop on social media by Ediola Pahollari, Secretary General of the World Assembly of Youth:

Youth are among the most active users of social media and using social media has definitely helped us connect with young people. The workshop was a great opportunity to enhance understanding on how social media can help promote their involvement in key development areas such as employment, environment, health, community development and leadership training.

There is evidence that university young people can be effective agents of ICT in development. In 2013, approximately 100 Hong Kong Polytechnic University students participated in four ICT-related overseas service-learning trips to Cambodia, Rwanda, Indonesia and Vietnam. Themed "Technology without boundary", PolyU students taught local primary school children and orphans in Cambodia and Rwanda how to use software for digital storytelling, animation programming and making robotic cars. The PolyU students also set up computer labs and an intranet system in an NGO, and provided training for its staff to make use of social media for publicity purposes. Some students developed solar panels to provide electric power to facilitate



children's learning at nighttime. In addition, a team of students conducted a survey in slum villages of Cambodia, and the data collected were expected to be used by an NGO for identifying the needs of the villagers.

In Indonesia, PolyU students joined with the local community in a 25-day project organized by Duta Wacana Christian University of Indonesia and PolyU to draw up strategies for developing the potentials of a village. By using GPS technology and satellite images, students and the local villagers gained greater understanding of the local resources and their community's needs. Making use of spatial information analysis, students came up with solutions to address the problems faced by the local community, thereby encouraging sustainable rural development.

5. COMBINING STUDENTS, ICTD AND COMMUNITY LEARNING CENTRES

We move from Hong Kong to Thailand to see how service learning pedagogy can be applied to community learning centres, ICTs, and development. Mahasarakham University (MSU) in northeast Thailand has a commitment to help villages in dealing with development issues. Its Faculty of Informatics works with local community learning centres focusing especially on helping them teach local people how to use computers that are in the center. We visited a community learning center in Krinun Village which is supported by MSU faculty and students. While most CLCs are housed in local government buildings, this one is located in a private house in a very rural area. Its principal function is to support a women's weaving group which uses its single computer for collecting designs of products and to advertise their woven products on the Community Development website. The owner of the house believes in life-long learning (a priority of the national government) and he goes to other learning centers to expand the 8th grade formal education he obtained as a youth. In our discussion we stumbled onto a project that MSU students could do as part of a service learning initiative. This man expressed a need for the community to preserve its Isan culture which he believes is disappearing. Later we thought of a number of ways students could benefit this community *based on its felt needs*. For example, the university students could capture — on video — oral histories from elders. The university students could tutor school youth or others in the community to do this themselves. The university students could help post this collection on a web page, and on disks. Keeping in mind that in service-learning the activity could benefit both students and the community, one can see how this activity fits that condition.

We can identify ICTD-related activities that university students are probably either already prepared to do (with some planning and organizing) or could collaborate with local partners to undertake in the community. Each of the following could be addressed as workshops, as an opportunity to do individual mentoring, or as technical assistance to adult

members of the community. In other words, students could teach about these, or provide assistance to others who need or can benefit from them. For example, a university student could work with a youth group as an advisor to produce on video a reenactment of an event in their community's history (see number 4 below).

Here are some possible ICT projects suitable for CLCs in almost any place in Asia. And these could be explored with representatives in the host community or the staff of a CLC during the preparation stage of the service-learning component of a university ICTD-related course:

1. Basic computer operations for doing life-long learning
2. Web page construction and management
3. Writing documents with a computer including building blogs.
4. Story-telling using computers and photography
5. Using email
6. Searching on the Internet
7. Using ICTs to support farming
8. Using ICTs to support community health programs, for example, supporting mHealth
9. Using ICTs for record keeping and business management
10. Designing web pages for e-commerce or government records
11. Using ICTs for capturing and archiving oral history and local culture
12. Conducting workshops related to the APCICT Primer Series if the Series is used in the university
13. Conducting community surveys, for example, to inventory ICTs available, or to identify community needs that might be addressed with ICTs.

6. THE COMMUNITY LEARNING CENTRE ADVANTAGE

Universities seeking local partnerships for service-learning have a variety of options. There are schools and institutes, clinics, local government bodies, religious organizations, and business enterprises that could be candidates. Many of these have potential needs or opportunities related to ICTs, and ICTs can play a role in various aspects of a community's life — from e-commerce to early-warning systems, (Asian Preparedness Center, 2013) from agricultural development (World Bank, 2010) to climate change issues (Asian Preparedness Center, 2013b). Thus potential local partners for an ICTD service-learning activity might be

found in an array of government offices, non-governmental institutions, and private sector establishments. Our approach to community learning centres includes a variety of local institutions. These are variously labeled *non-formal education centres*, or *literacy centres*, or *community multi-media centres*. (UNESCO, n.d.,b) More specifically related to ICTs are public access centres such as libraries, telecenters, and cybercafés which enable people "to participate in the information society." (Sey et al, 2013) We have emphasized community learning centers as prime candidates for partnership with university ICTD service-learning academic programs for several reasons. These include:

- By their nature CLCs are aimed at development of the community, a priority usually embedded in service-learning initiatives.
- Learning is a fundamental part of the goals of CLCs and service-learning, and it can benefit by both partners
- Each has institutional support providing insuring the possibility of a continuing relationship of the partners.
- ICTs are significant tools related to both of their cultures.

We should note that the photos of UNESCO-supported CLCs on the web suggest that some CLCs have an interest in ICTs and already may be equipped with some devices. (See photos below.) However, there is evidence that some may have the devices but do not make maximum use of them for development initiatives.

7. CONCLUSION

We conclude by making several observations. First, students can make excellent contributions to other organizations like those connected to sophisticated uses of ICTs such as in advanced warning systems, in solar devices, and in other applications. And give and receive benefit to the partners. These potential partnerships, of course, should not be ignored.

Second, an opportunity to gain cross cultural experience in a community learning centre is a valuable benefit to students who may typically be from a more favored culture. Confronting the realities of daily life in another community in a distant part of the country may force students to think critically about the dominant values and assumptions that shape their lives and worldviews. Students often change their beliefs and values in order to integrate their service-learning experience into their lives more effectively when they return home. Students may make significant lifestyle changes that fit a more socially responsible worldview.

Third, weaving together APCICT's emphasis on ICTD in a university curriculum with the widespread UNESCO priority on community learning centers suggests a challenge to APCICT and to UNESCO to organize an international conference that will give greater visibility to the opportunity to develop constructive service-learning partnerships, and guide us to more aggressive implementation of this kind of partnership for ICTD service-learning.

Community Learning Centre in Asia



Community Learning Centre in Mongolia



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DIRECT AND INDIRECT SERVICE LEARNING IN CIVIL ENGINEERING EDUCATION

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ABSTRACT

Most of the service learning subjects are delivered in form of direct service, students participate directly in field work and reflect on the connection between community service and their academic learning; the benefits to the students and community cannot be manifested without the careful choice of project and detailed coordination of the faculty. Indirect service learning, on the other hand, students do not participate directly in field work, they understand the community through teachers, and can be more focused on applying their knowledge to address the needs of the community. The indirect service learning approach shifts the management of service learning from coordinating individual students' field work to managing students' group efforts on behalf of the community. Benefits and tradeoffs of these approaches are discussed in this paper; moreover, the nature of service required is another factor that should be considered when choosing between direct or indirect service. The author do not see direct and indirect service as mutually exclusive, rather, the faculty should consider an appropriate blend of the two to suit students' background and intended learning outcomes. An example of integrating direct and indirect service a service learning subject for civil engineering students is discussed in this paper.

Keywords: direct service, indirect service, civil engineering

1. INTRODUCTION

Outcomes of Engineering Education

In respond to the expectations our world display on future engineers, engineering degrees accreditation bodies such as ABET Engineering Accreditation Commission in the United States (ABET Engineering Accreditation Commission, 2013), Engineering Council in United Kingdom (Engineering Council, 2014), or Hong Kong Institution of Engineers (Hong Kong Institution of Engineers, 2013) have extended their set of learning outcomes that must be demonstrated by students graduating from engineering programs. Outcomes of engineering education should encompass foundational and technical attributes like science and mathematics, engineering analysis, design, some more professional outcomes are now included, such as ethical reasoning, societal awareness, environmental and economic considerations, and some personal, attitudinal outcomes also need to be addressed in engineering education. Not too surprisingly, these attributes are being translated into program outcomes in engineering programs, (for example, Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University (2014)), and bring new challenges to faculty in view of the already packed curriculum.

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1.1 Approaches in Civil Engineering Education

Traditional approaches to engineering education have often been criticized for narrowly focusing on technical skills and not reflecting the social complexity of engineering practice. Despite engineering schools are often provided a high degree of institutional autonomy, nearly all engineering schools follows a highly similar, linear model. This traditional, linear model, linked tightly together by prerequisites and packed technical core courses – leaves little room for developing professional knowledge, skills, and attitudes needed by engineers. The traditional lecture-based approaches on engineering education have focused primarily on learning environments that facilitate the acquisition of foundational and technical skills, leaving the responsibility of professional skill development and the synthesis of skill sets to internships and other workplace experience (Mostafavi, Huff, Abraham, Oakes, & Zoltowski, 2013). As highlighted in Kolb (1984), learning is more effective when the development and synthesis of skills take place through an integrated process. However, neither ABET, Engineering Council nor HKIE have proposed clear implementation strategies to the learning outcomes.

2 SERVICE LEARNING

2.1 Definition of Service Learning

In Bringle and Hatcher (1996), service learning is a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way so as to gain further understanding of course content, a broader appreciation of the discipline and an enhanced sense of civic responsibility. Strage (2000) considered service learning must include several critical components:

- High quality service that meets a goal defined by the community
- High quality learning: intellectual and personal growth of student
- Service and learning components of the course should enhance each other
- Service should be integrated into the fabric of the course by means of reflective and integrative assessment

2.2 Benefits of Service Learning

Generally speaking, service learning is increasing popular in higher education for its effectiveness in enhancing civic responsibility, acceptance of diversity, leadership skills; it has powerful impact of students' moral, social-cognitive and emotional development (Strage, 2000). Teachers reported that service learning bring new life to the classroom, enhances performance on traditional measures of learning, increases student interest in the subject, teach new problem solving skills, and make teaching more enjoyable. In addition, students in service learning sections had more positive course evaluations, more positive beliefs and values toward service and community. Moreover, it often has positive impact on personal, attitudinal, moral, social, and cognitive outcomes (Bringle & Hatcher, 1996). These benefits make service learning a very attractive pedagogical tool in facilitating the professional and attitudinal learning outcomes as stated in section 0 (such as ethics, social awareness, etc.).

2.3 Service Learning in Engineering Education

Albeit benefits stated above, while service learning has been well established in many disciplines in higher education, engineering has been slow to adopt the pedagogy (Zhang, Gartner, Gunes, & Ting, 2007). Engineering education has a science culture of intellectual impartiality and objective enquiry in which affect is ostensibly absent (Nesbit, Sianchuk, Aleksejuniene, & Kindiak, 2012). Luckily, the tradition on hand-on experience in engineering brings opportunities in filling the gap.

Evidence suggested that service learning experience influence student beliefs, and can be an effective pedagogy in instilling professional values/ ethics/ attitudes. Nesbit et al. (2012) reported the experience at a Canadian university, that community service learning experience facilitates the reconstruction of civil engineering student beliefs about both the type of work performed by civil engineers and the broad impact of civil engineering knowledge.

Zhang et al. (2007) discussed examples on how to integrate service-learning into an already packed curriculum by replacing some of the coursework/ assessments by the service projects such that no significant truncation of course contents or time devotion by students. The authors discussed three examples at the University of Massachusetts Lowell with freshmen, junior and senior students respectively. The outcomes are encouraging; for example, it is reported that “students developed a better sense that engineers should use their skills to solve social problems facing their local community as well as communities internationally”, “they have become more interested in pursuing a career that involves helping people”, “they have become more comfortable working with people from different race and backgrounds” and “they have developed better relations with faculty members”. In another case at a Canadian university (Nesbit et al., 2012), students performed small construction project, such as a fish smokehouse for an Aboriginal community, a play-house for a daycare center in an inner city neighborhood. The authors concluded that service learning experiences highlight for students (i) the importance of relationships between people, (ii) the value of variations in perspective, and (iii) the responsibilities of civil engineers in society as holders of expert knowledge.

Nonetheless, there are particular difficulties in introducing service learning into civil engineering education, due to the duration of typical civil engineering projects. Careful planning is always needed and it is crucial to find a right project of the right size and right topic so that students can complete within class time and be able to deliver the project to the community partner (Zhang et al., 2007). As noted in Bielefeldt, Paterson, & Swan (2010), it is difficult to implement project-based service learning in civil engineering, especially because “some infrastructure projects...for a community [have] a timeline to implementation longer than allowed in a single course or academic year. This complicated student involvement, reflection, and assessment in [project-based service learning]; an individual student may not witness the impacts of their work to the community and thereby undervalue the service-learning opportunity. In view of the project timeframe issue, in the EPICS (Engineering Projects in Community Service) projects at Purdue University, most service learning projects are not completed within a semester. The approach adopted was (1) definiting define specific deliverables for each semester based on which progress can be evaluated; and (2) maintaining and expanding the team roster throughout the project. The deliverables are progressive, and the collective set of deliverables is going to address the ultimate need of the community (Mostafavi et al., 2013).

3 DIRECT VS INDIRECT SERVICE

3.1 Drawbacks of Direct Service Learning

Traditional and the mainstream approach of service learning usually involve students participating directly in their community through some field work and students reflect upon their own experience after service. Scott (2004) commented yet much of the promises of [direct] service learning are not realized when courses are driven by (i) a “hyper-pragmatist ideology” (providing the best vocational training to prepare students for a successful career in a company) and (ii) set of institutional practices and structures. In service learning subjects, students often get to know the community partner in one week, and then have them to start developing projects the next week, producing proposals, progress reports, reflective journals, and presentations in a hasty manner. The complex, time-consuming tasks of a service-learning project leave little time for reflection, ethical intervention, especially when the project is initiated and completed within a semester. The hyper-pragmatist ideology may limit students’ ability to consider the reasons for their work, students can easily get caught up in fulfilling their duties to the organization, pleasing their project sponsors not realizing they fail to engage their other stakeholder or consider the ethical implications of their work for these stakeholders.

In another study, Sturgill and Motley (2013) compared the outcomes of indirect and direct service learning in communication class. They also shared concern on time and scheduling conflicts. Courses with a service-learning component required on average 40 hours of on-site work over the duration of a course, but amount of time for students and faculty was a major drawback. One-shot projects that can be completed in a single semester are not always appropriate; it may run into a risk of no meaningful connection being established between the academic unit and the community. Communication issues and logistical mismatches inherent with service learning subjects cause stress for students. This stress results in push-back and a perception that the class is poorly organized. Faculty member worried about how this would affect student course evaluations, which are used as a career assessment tool. Sturgill and Motley discussed other drawbacks on direct service including: placing students outside the university can enhance legal risks, potential violation student rights to privacy, faculty lack control when students go to work in the community, service agencies/ sites may be unprepared for students’ learning and service. At this note, Mostafavi et al. (2013) also mentioned the possibility of students’ failure leading to difficulties for the community partner. It is necessary to make sure community partners are aware of the learning objectives of the projects and understand the process through which students learn from failures and maintain a careful balance between learning and community service.

3.2 Indirect Service Learning

Observing the downsides of direct service learning, Sturgill and Motley (2013) proposed indirect service as a possible way out. Connor-Linton (1995) described indirect service learning as students do not participate directly in field work, but they learn about some sector of the community through their teacher’s own research and/ or community service. They apply knowledge acquired through the course to create a service or product which helps to meet a need of the community. Students can have more time to critically analyze the course content and social issues through the application. Changing to indirect service shifts the management of service-learning from coordinating individual students’ field work to managing students’ group efforts on behalf of the community.

3.3 Students' role in learning and outcomes

In the traditional, direct service model, students receive a broad range of information through several channels (visual, aural, affective) and must discriminate and order information relevant to their service role, the course content, and their personal development. While in indirect service, information is largely preselected by the teacher and presented through more traditional pedagogical channels (Connor-Linton, 1995).

Nonetheless, indirect service learning is not passive learning. Information is largely preselected for its relevance to the community's needs and course contents, students can put more effort into applying their knowledge to analyze and meet the community needs. Sacrificing the immediacy of the student's community service experience enhances other pedagogical values of service learning, such as (i) greater ability to apply course concepts outside the classroom, (ii) teacher may be able to integrate team projects more concretely into coursework, (iii) greater control over student's experience, and (iv) possible to evaluate students' service effort: while it would be unfair in most direct service learning cases to evaluate students by the efficacy of their proposed solution for the community partner's needs.

Sturgill and Motley (2013) compared learning outcomes of two groups of communication students in direct and indirect service learning. Both groups of students were able to make connection between classroom learning to real-world application, able to do collaborative work; but the group of indirect service students were only able to think in general terms about the scope and value of their work for the community partner, but did not connect the value of their work to the outcomes for society; moreover, they have less obvious outcome of improvement in future citizenship, civic engagement, and cultural understanding since they did not deal with the society first-hand.

3.4 Type of service

In short, it has been discussed that direct service can bring along affective learning experience to students and deliver the associated outcomes more lucidly, at the cost of the time and coordination work, the potential risk of compromising the benefits of service learning, and less control on students' experience. Another aspect that one should look at before deciding between direct and indirect service is the type of service to be offered. Certain community needs are essentially needs of individuals, and direct student participation is appropriate, such as volunteer tutors in literacy programs. However, not all of a community's needs can be met by individual students (or small groups of students) working relatively independently. Some community needs are more system-level needs of social institutions (Connor-Linton, 1995).

4 BLENDING DIRECT AND INDIRECT SERVICE LEARNING

At the Hong Kong Polytechnic University, service learning is part of the graduation requirement of students. In each service learning subjects, it is expected students spend 40 hours in conducting direct service to the beneficiaries to ensure there is sufficient interactions to develop immediacy and affective component of the learning. Below is going to discuss the experience in a service learning subject in summer 2014 with a class size of 50 students (over 95% civil engineering major).

The subject was implemented in partnership with an elderly community center in a district that has predominately high percentage of old and low-income population. The primary beneficiaries of the project are the elderly residing in the district.

4.1 Subject outline

The subject was implemented in 7 weeks (summer semester) and roughly divided into three stages (Table 1).

Table 1 Subject structure

Stage	Weeks	Content	Individual Assessment	Group Assessment
Preparation	1 to 2	Lectures, seminars, and workshop introducing or reinforcing knowledge and skills that will be applied in service. Prepare students for service.	Assessments in online learning module	Pre- service case study
Service	2 to 6	Two service projects <ul style="list-style-type: none"> • Home Environment Assessment (HEA) : direct service • Age-friendly Community (AFC): direct + indirect service Regular groups meetings with project supervisors (<i>3 times, flexible schedule</i>) <ul style="list-style-type: none"> • Reflect on service experience, technical support from teachers 	<ul style="list-style-type: none"> • 2 reflective journals • Individual service performance 	<ul style="list-style-type: none"> • Study plan • Group service performance
Conclusion	6 to 7	Final presentations to beneficiaries Written report to community partner. Poster sessions to practitioners Final reflective report	Final reflective report	<ul style="list-style-type: none"> • Final AFC report • Presentation at community centers • Poster presentation

4.2 Service projects

Age-friendly community (AFC) project

In the age-friendly community project, groups of 5 students team up with the 3 to 4 healthy and active elderly to assess and provide suggestions on the age-friendliness of the district, based on the age-friendly cities concept proposed by the World Health Organization (World Health Organization, 2007). The teams of students cum elderly had focus group discussions and field visits. Part of the field visits were with the elderly so that students can obtain a first person experience of the problems; part of the visits were performed by students only, mainly for collecting some more technical data (such as measurement of vehicle flow, road width, air quality inside public transport). Students also researched on the relevant design standards and guidelines, case studies in other countries, and made references to what they have learnt in class to provide an objective analysis of the issues and propose solutions to the local authorities for follow-up. Lastly, students had presentations at the community centers to educate the elderly on the concepts of age-friendly community and present their suggestions. They also produce written reports to be submitted to the authority for follow-up. At the end of the project, students present their problem identification and suggested solutions in poster sessions, practicing engineers are invited to give comments to students to strength the academic linkage to their service.

Home Environment Assessment (HEA) project

In the home environment assessment project, students (in groups of 5) had three visits to the homes of the elderly who are living alone or as a couple. This group of elderly is less mobile and physically weak. Students examined the household environment and assessed the health and safety condition of the house (such as interior construction,

fixtures, electrical and fire safety). Apart from conducting the assessment, students chat with the elderly to show their care. The home environment assessment was intended to be an opportunity for students to understand and empathize with the old people who are frail and alone.

As described above, the two service projects provided a mix of direct and indirect service experience to students (Table 2). In these two projects, students established direct contacts with elderly of various education level, income, physical health and family conditions, allowing them to see the diversity of abilities and needs of the elderly population.

Table 2 Service Project and Direct/ Indirect Service Components

Project	Direct Service	Indirect Service
Home Environment Assessment	Home visits	-
Age-friendly Community	Focus group discussions	Field data collection
	Field visits	Desktop research
	Presentations at community centers	

4.3 Experience

As noted in Connor-Linton (1995), the impact of the age-friendly community project is more system-level rather than having some immediate benefit to the person being served, it is more appropriate to convert part of the service to the indirect mode. This particular service learning subject offered a mix of direct and indirect service learning experience to students.

Typically, the job of a civil engineer is very technical and has a very strong analytical focus, and these are reflected in the civil engineering undergraduate curriculum. Despite students acknowledged the ultimate contribution of a civil engineer is to build a better world for mankind, they are often unable to solid linkage between their academic learning and the needs of the end users. This lack of linkage is evidenced by students' doubts during the project meetings: some students raised that, they found the direct service components in the two service projects (home visits, face-to-face discussions, field visits etc.) may not be directly relevant to their curriculum, performing those tasks has nothing to do with enhancing their knowledge or skills in areas like structural engineering, construction material and so on. As discussed in section 1.1 before, this kind of doubts is probably due to the current civil engineering curriculum is overloading students with technical knowledge and skills, lending students to misconceptions what it takes to be a successful civil engineer; students who eventually become civil engineers may as a result focus too much on complying with the statutory standards and satisfying the client's needs (the party who pays for the projects), disconnecting themselves with the end users.

The purpose of this service learning subject is exactly to fill this gap. Relatively speaking, teaching new or reinforcing academic knowledge is not the primary objective of the subject, students are introduced contents that they need and they are expected to do some self-study. Rather, the direct service components of the subject offered a unique opportunity for students to understand how their profession impacts the well-being of the end users (elderly in this case), what are the deeper cause of their special needs (like deteriorating health conditions, low income), and thence reflect what they can do to help.

As a result of going through the 7-week of the service learning subject, by comparing the pre- and post-service student questionnaire, students demonstrated significant improvement in social responsibility (Figure 1 and Table 3).

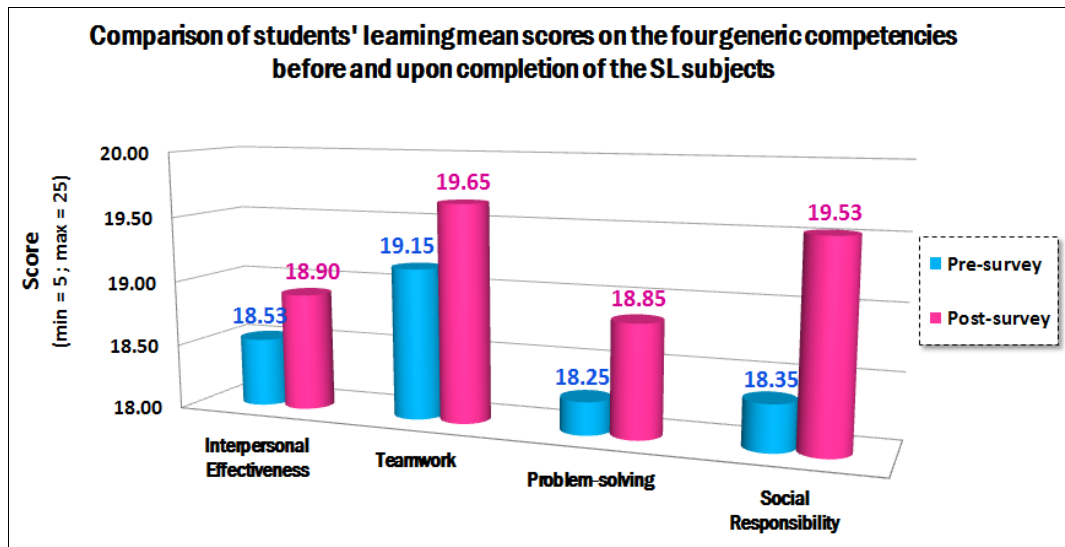


Figure 1 Comparison of students' generic competencies before and upon completion of the SL subject

Table 3 Comparison of students' generic competencies before and upon completion of the SL subject

Generic/soft skills	Students' SL Learning Status	Mean scores	Differences in mean scores	Sig. 2-tailed	Effect size
Interpersonal Effectiveness (IE)	Pre-SL Post-SL	18.53 18.90	0.375	0.469 (NS)	0.154
Teamwork (TW)	Pre-SL Post-SL	19.15 19.65	0.500	0.162 (NS)	0.250
Problem-solving (PS)	Pre-SL Post-SL	18.25 18.85	0.600	0.238 (NS)	0.217
Social Responsibility (SR)	Pre-SL Post-SL	18.35 19.53	1.175	0.013*	0.468

* Significance at the $p=.05$ level; NS – Not Significant

From the students' final reflective reports, nearly all students expressed the most important takeaway in the subject was they now have a much deeper understanding on the needs of the elderly, and how they can help as a civil engineer – simply following the design standard or current design practice is not good enough, if they can think a little deeper at the design stage, it can help the elderly a great deal. Moreover, most students also commented that this subject offered them a valuable opportunity to look at their community in a more microscopic perspective: they are now aware that small items like handrails, wheelchair ramps are indeed missing in a lot of public places, the pedestrian green light is actually too short, public toilets are not easy to find etc. These problems have always been there but they were not aware of it before, and now they can identify these problems easily and willing to offer help to people in need.

These are strong results supporting the benefit of combining direct and indirect components into service learning subjects for civil engineering students. The indirect service (data collection, desktop study) component maintains the academic relevance of the service projects, while from the direct interaction with the elderly, students learn how to see things from other stakeholders' perspective. The direct and indirect service components are complementing each other, allowing students to a build better connection between their technical knowledge and their service, they are able to

appreciate how (civil) engineering planning, design and construction impact on the well-being of the elderly, and the larger community.

Last but not least, the community partner also benefited from the cooperation with students. From the feedback of the community partner, the depth of the research (resulted from the indirect service part) makes the final reports and suggestions more technically credible, and is more likely to be adopted by the local authority for implementation (compared with the suggestions made by their own advocacy group).

5 CONCLUSION

Contributions engineers can make to the society are often manifested through the utilization of the finished product, while engineers are often involved in the very upstream planning and design stage. To complement the highly technical, calculation intensive curriculum, use of service learning as a pedagogy can bring in the desirable learning outcomes such as ethical reasoning, social awareness, and competence in design meeting users' desires. Direct and indirect modes of service do not have to be mutually exclusive. Identification of suitable service learning projects and a suitable blend of direct and indirect service can on one hand highlight the importance of human element and in their profession, and retain a strong linkage between academic learning and service on the other. The above conclusion is drawn from the author's experience and artifacts of students' learning throughout the subject; it may not be representative at other institutions or disciplines. This case study may serve as an example that faculty can consider delivering service learning subjects in blended mode instead of struggling between direct or indirect service.

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Service Learning in Engineering: Integrating Experiences in Competitions and Community Services

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ABSTRACT

Service learning in engineering is particularly useful for achieving the mission of developing future engineers who are expected to have both technical skills and a sense of civic responsibility. The current training of engineers focuses mostly on the technical development. In this paper, we present a new approach in service learning by integrating students' experiences in technical-oriented competitions and community services. The experiences in the robot design competitions have equipped students with a high level of technical expertise as well as competency in soft skills. Meanwhile, we provide a platform for them to leverage their expertise through the community project development and implementation. Two case studies will be presented. Students were found to be highly engaged in providing services in their area of expertise and that their services were well received. Through the process, students acquired interesting ideas from observing others, improved communication and tutoring skills, and obtained a new understanding of the role of engineers in the society.

Key Words: Service learning, robotics; engineering, integrated experiences

1. INTRODUCTION

Over past decades, service learning has been promoted across all disciplines at a university level. Community service learning integrates experiential learning and community service in such a way that students gain both professional skills and a sense of civic responsibility through satisfying the community needs (Parker, Myers, & Higgins, 2009). The service learning approach has benefited students in a number of aspects, including personal growth, social networking, cross-cultural exposures, academic development, and professional skills (Lok, Fox, & McNaught, 2009).

Service learning in engineering is particularly useful for achieving the mission of developing future engineers. The major accreditation body of engineering programs, ABET, has established intended learning outcomes of engineering graduates. The importance of social and civic responsibilities has been largely emphasized. Specifically, outcome 3f of Engineering Criteria for 2014-15 states that engineering programs should demonstrate that their graduates have "an understanding of professional and ethical responsibility" and outcome 3h states that the graduates should have "the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context." (ABET, 2014-15).

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This paper presents an approach of service learning in engineering that systematically integrates students' experiences and learning in robotics competitions and community services in a research-intensive university of Hong Kong. Students are provided with opportunities to serve others in the community based on their specialty and expertise that are closely related to their training for the robotics competitions. This integrated approach aims to motivate and engage engineering students by giving them tasks that are both challenging and interesting. The essence of the approach is to make students feel competent and a sense of autonomy since the service they provide fits in the expertise that the students are trained in their professional development in engineering.

Two case studies will be presented in this paper based on the integrated approach. The evaluation results collected from surveys and interviews have shown that students are highly motivated and engaged in the process of providing services in their area of expertise. More importantly, the experience of serving others has enabled them to formulate a new perspective of the role of engineers in the society.

2. SERVICE LEARNING IN ENGINEERING

To develop students with social and civic responsibilities, the engineering curriculum must contain sufficient social and community related elements. Service learning would therefore be an indispensable component in this regard. Universities around the world have started service learning programs/ projects in engineering. The Engineering Projects in Community Service (EPSC) has been initiated in Purdue University and 18 universities in the United States were involved. More examples of service learning in elective engineering courses can be found in Tsang (2000) and Lima and Oakes (2006). The college of engineering at University of Massachusetts Lowell has embedded service-learning into a number of required undergraduate courses. Locally, the University of Hong Kong has formed the reconstruction team consisting of engineering students and faculty to assist in the post-quake reconstruction in the Sichuan Province of China (Chan, 2012). There are other projects involving engineering students in providing services to senior citizens and new arrivals in Hong Kong (e.g., Ngai, 2006).

Despite the progress made, there are still some challenges in introducing service learning to engineering students. Engineering students have long been perceived as technical oriented problem-solvers (Lucena & Schneider, 2008). The traditional academic training tended to build a technical sense of professional identity among engineering students (Huff, Zoltowski, Oakes, & Jesiek, 2013). This has somehow led engineering students to believe that the community or social needs are irrelevant or much less important than the acquisition of technical knowledge and skills. The participation rate in service learning among engineering students is comparatively lower than that in many other disciplines, such as social sciences and business. In addition, formulating meaningful partnerships with the community can also be an issue. As Lucena and Schneider (2008) state, including community in engineering education is still an unmet challenge. A significant amount of time and effort is required to build trust with the community partners.

In consideration of these influences, it would be important to bring the awareness of social responsibilities and the sense of relevance to motivate engineering students and at the same time, create real values for the community partners to sustain a long-term collaborative relationship. According to Ryan and Deci (2000), the activities shall be challenging, interesting or aesthetically appealing for students to feel intrinsically motivated. Furthermore, the motivation will be enhanced if the participants believe that

the activities can make them feel competent and a sense of autonomy (Deci & Ryan, 1985).

3. THE ROBOTICS TEAM

The Robotics Team consists of mainly undergraduate students who are passionate about designing and building robots. The students come from different academic disciplines, the majority of which are under the School of Engineering. The Team represents the university to attend three competitions: ABU Robocon Contest, MATE ROV (Remotely Operated Vehicles), and Freescale Intelligent Car Racing competition. Over the years, the Team is continuously evolving through recruiting and training new members. In every September, the Team would recruit junior members from all students in the university. Successful applicants will receive the basic training in robotics lasting for one month. When they have the basic knowledge and concept of building a robot, they would have a month to prepare and build their first robot for the internal robot design competition in late November or early December. Students' performance in both the training sessions and the competition would be counted towards the final member selection. Nearly 60 members would be selected to become formal members.

The members will be divided into four sub-teams to participate in the four robotics competitions at a local level. Once they get qualified, they can enter international competitions. Through the process, the members are equipped with technical skills, problem-solving skills, and teamwork skills. After these competition experiences, junior members will become senior ones and perform as technical advisors or trainers for new members. Figure 1 shows the recruitment, training and development of the Robotics Team.

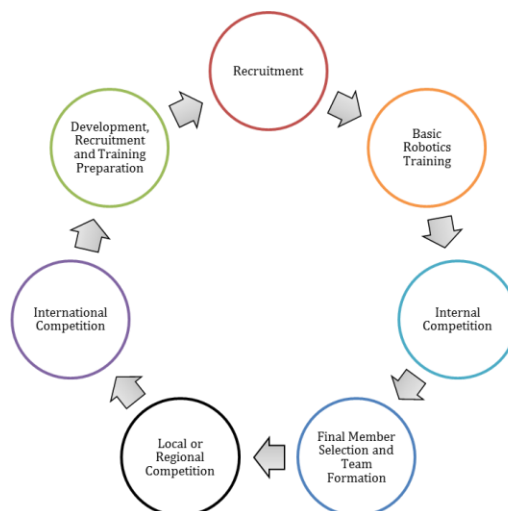


Figure 1: The recruitment, training and development of the Robotics Team

4. INTEGRATED EXPERIENCES IN SERVICE LEARNING AND ROBOTICS COMPETITIONS

Usually a large amount of effort had to be made in recruiting and training students before they can conduct service learning. This is especially true for engineering students as they sometimes overlook the needs of the community while focusing on the technical development. The uniqueness of the present design of service learning projects is that students are encouraged to extend their professional skills creatively into the areas of engineering community projects. Through applying their professional engineering knowledge to serve the community, these students are expected to be more committed

and feel more proud of their achievements in the service areas. Meanwhile, they could also improve their soft skills and leadership skills, which will ultimately enhance their competitiveness in the robotics competitions.

As the students are already well trained in the technical skills, the emphasis can be placed on developing their readiness for serving the community. In particular, the design phase of community projects and service leadership development can be emphasized. To illustrate, two case studies of engineering community projects on underwater robot design will be presented in the following sections.

4.1 Case 1 – Advanced engineering workshops for participants in an Asia-Pacific underwater robot competition

The main objective of these workshops is to provide the latest and advanced technologies of underwater robotics in an appropriate way to the participants who were of different ages and educational background, ranging from junior secondary schools to universities. Due to limited resources, all the techniques had to be trained in a few workshops. The challenge of this community project is to design the material and deliver the appropriate technical training to the participants. Sixteen students from the Robotics Team have participated in this project. To support these students in the design process, several meetings were conducted before they started the services. During the meetings, students were asked to select the suitable pedagogy and decide the appropriate design materials.

Students' services as trainers and mentors for their younger peers have been well received. A questionnaire survey was conducted to solicit participants' feedback. Thirty-four questionnaires were returned. Over 90% of the participants agreed that they enjoyed working with and learned something useful from the Robotics Team and more than 80% agreed that the workshop increased or confirmed their interest in studying engineering (see Table 1).

Statement	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
1. This underwater robot workshop was fun.	0	0	5.9	58.8	35.3
2. I have learned some engineering skills from the workshop.	0	0	2.9	52.9	44.1
3. I have learned teamwork skills from the workshop.	0	0	23.5	47.1	29.4
4. I have learned about what engineering is during the workshop.	0	2.9	5.9	61.8	29.4
5. The workshop increased or confirmed my interest in studying engineering.	0	0	17.6	55.9	26.5
6. I have enjoyed learning from/ with students from HKUST.	0	0	8.8	55.9	35.3
7. I would recommend the workshop to others in my school.	0	0	29.4	29.4	41.2
8. I believe that engineering is fun.	0	0	0	52.9	47.1

Table 1: Responses of the workshop participants (N=34)

In addition, a number of participants and their teachers expressed their appreciation in writing. Below shows two examples:

“(The Team) provided very good program which could help participants in building their robots as well as giving the important reminder to the participants. – a participant of the workshop”

“We learnt a lot and really enjoy ourselves in this competition. It is absolutely an unforgettable experience working on our underwater robots and participating in the workshops and competition. – a teacher leading the contesting team”

4.2 Case 2 - Workshops for visually impaired children and teenagers

The second engineering community project is an inclusion project. In Hong Kong, underprivileged people such as visually impaired children or teenagers do not have many opportunities in joining robot design contests. The main challenges for them include both technical barriers and the lack of administrative support from organizers. In this project, two students from the Robotics Team designed a special workshop for a group of 12 visual impaired students with different education levels ranging from Primary Form 5 to Secondary Form 3. Through the design of the workshop, students from the Robotics Team firstly understood the abilities and limitations of the visually impaired children and teenagers from their teachers. This was an important first step since the design of the workshop must be substantially adapted for this special group of learners.

Through and after the workshops, the Robotics Team students served as the mentors of two teams of visually impaired children and teenagers in competing students from ordinary schools in the Hong Kong regional underwater robotics competition. The team consisting of all visually impaired children finally obtained the 1st Runner Up in the competition. Such achievement was previously seen as impossible because the physical limitation of these contestants was regarded as critical in building a robot. During the de-briefing session, the Robotics Team received high comments and appreciation from these children and teenagers. Below shows the excerpt of a “thank you” note written by a student.

“Thank you ... ROV Team to teach us how to build the underwater robot. They give us great support and help. – a visually impaired student”

5. EVALUATION OF STUDENTS' LEARNING

Students' learning has been evaluated using focus group interviews and individual interviews after their participation in the projects. Evaluation in these qualitative forms is appropriate when the purpose of the study is to understand the perspectives of students and pilot test new approaches (Cooper, 2009). One focus group with five students who have participated in the first case and a semi-structured individual interview with a student who has participated in both cases were conducted. Examples of the questions asked during the focus group were “What was your role in the project?”; “What did you learn during the process?”; “What do you think would be the role of engineers in the society or community?”; “How do you perceive your role?” and “Do you have any suggestions to improve the service?”. The individual interview followed a similar question list and the interviewer probed more on the learning and identity of the student who has participated in both cases.

5.1 The role: Helping and working with people who share the same interest

When being asked about their roles in the project, students emphasized that it was fun in helping and working with younger peers who shared the same interests in designing and building robots. They pointed out that what motivated them at the beginning was not only the idea of serving the community, but more importantly the passion and

interest in robots. Below are two excerpts showing the enjoyment of working with people sharing the same interest,

“We enjoy doing something that we like. It is where our passion lies. Working with a bunch of kids who share the same interest in robotics design is quite fun. – collected from the focus group”

“My role was to introduce students to an interesting extra-curricular activity or a hobby rather than instructing them all the procedures in building a robot. It is important to raise their interest in technology since they don’t have many opportunities in this aspect. – collected from the individual interview”

5.2 Students’ learning

Students’ learning can be classified into three broad categories. The first is related to the technical aspect referring to new ideas or perspectives generated from observing how the younger peers learn. There is limited learning in the advanced technical levels. For example, students said that,

“I was surprised to see that these kids have so many ideas about the task. They are very independent. Some of the ideas are very good and showing some new perspectives that I haven’t thought about. – collected from the focus group”

“Watching the kids learn is fun but the level of the workshop is not high enough for us to learn any advanced technical stuff. – collected from the focus group”

The second learning outcome is the improvement in communication and tutoring skills, in particular, communicating technical knowledge to non-technical people and making suitable adjustments on the spot. Students initially felt difficult to assume a student mentor’s or instructor’s role in delivering the workshops to younger peers. The difficulties were more apparent in the second case study in which the workshop participants were visually impaired students. To cope with the difficulties in teaching and mentoring, students have made an effort in adapting the materials to suit the needs of participants.

The following excerpts illustrate this point,

“I had difficulties in describing the robots ... and finally felt relieved as I found a common topic with the participants, the Gundam... (note: Gundam is a series of famous robots featured in TV and movies). – collected from the individual interview”

“It was very difficult to simplify a complex idea to people without technical background. It could be more difficult than taking exams ... q(Q)uoting daily examples will be a good method... I also learned to give precise

instructions to a group of new learners to ensure the safety of them (in using the tools). – collected from the individual interview”

The third category of the learning outcomes is associated with a new perspective about the role of engineers in the society. Students prior to attending these projects thought that designing robots was simply for fun and for competing with others. After the workshop, they were more aware of what engineers could do in the community and how engineering could have an impact on others’ lives. Two excerpts are shown below which illustrate students’ understanding of the role of engineering in the community and their own responsibilities after the project.

“I used to think that designing robots was just for fun and for the competitions. Now I can see that engineering was not only (for) boosting machine performance but could also really make a difference in society... – collected from the individual interview”

“I feel a sense of responsibility as a member in the Robotics Team. If those kids need us in designing robots, I think that I should help them. – collected from the focus group”

5.3 Students’ suggestions

There are some suggestions made by students during the focus group to further integrate the engineering competitions and community projects. These suggestions focused on long-term development that would extend the involvement of the Robotics Team in the community service, which reflected that students would like to be continuously engaged in these activities.

“Maybe it is better to think from a curriculum perspective or at least we can form an interest group with no formal structures. Any secondary school students who want to join can come to join us. We may involve them earlier in the robotics design ... Or we can have secondary interns working with us. – collected from the focus group”

“One or two workshops cannot do much to the community. Something in a long-term will be needed. GCE (note: GCE is the Center for Global & Community Engagement in the University) can foster interest in learning robotics design in the community. – collected from the focus group”

“If time allows, I will be willing to take more responsibilities in designing materials and organizing workshops. It will be more fun. – collected from the focus group”

6. DISCUSSION AND CONCLUSION

The passion and interest in robots were found as a key motivating factor for these students to attend the community service projects. This is consistent with our assumption that building on students’ interest and passion will be an effective way to increase the participation in service learning among engineering students. The

integrated process provides an excellent platform for engineering students to leverage their expertise to serve the community. Since students are very proud of their abilities in designing and building robots, they are more willing to contribute to the society utilizing their strengths in this aspect.

Students have enhanced both technical knowledge and soft skills through delivering the community projects. The technical knowledge refers to some new perspectives or ideas from the observation of the learning of younger students rather than any advanced knowledge or skills learning. The soft skills refer to the communication and tutoring skills. Students also obtained new insights about what engineers could do in the society and became more aware of their responsibilities as future engineers, which is a very important training component for future engineers (ABET, 2014-15). These new insights have to some extent led to an increased sense of responsibilities for students to take actions. In fact, students' suggestions on building long-term initiatives have reflected their willingness to be more involved.

In addition, collaboration in this specific way also helps strengthen the partnership between the university and the local community. The literature has pointed out that it is not easy to sustain the collaborative relationship because there are gaps between the academic focus and the community needs. In the present study, students served the community using their unique knowledge and skills. Their service was highly appreciated by the community with positive evaluations. Such type of relationship can be further developed into long-term partnerships.

To summarize, integrating experiences in service learning projects and the robotics competitions is found to be a viable approach for encouraging participation in service learning among engineering students. The successful experience can be potentially replicated or extended to other technical-oriented groups in higher education institutions. More quantitative and qualitative data about students' learning following this integrated approach shall be collected in the future to study its effectiveness. The key element concluded from the present study is to make use of existing structures or platforms and to enable students to leverage the expertise of which they are most proud.

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Inter-disciplinary service learning – Housing for the Community

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ABSTRACT

Service-learning (SL) can help students not only develop their personal qualities but also enhance their social and civic responsibilities. Despite the promotion since the mid-1990s, the development of SL is popular in faculties of humanities but not in other technical departments with intellectual orientations which are less associated with social services. It has been attributed to the lack of a conceptual model for disciplines like building and engineering guiding the delivery of SL. To fill the gap, the study has proposed a 3-Stage SL Approach which offers a pragmatic pedagogical model by encompassing the inter-disciplinary academic education and field study, and a SL project in building discipline has been developed for validation of the model. The findings reveal that, besides the technical skills acquired in building inspection and assessment of adequate housing, generic skills of the students and their awareness of social responsibilities have also been enhanced through the inter-disciplinary SL.

Keywords: Service-learning, inter-disciplinary study, housing

1. INTRODUCTION

Service-learning (SL) has been strongly promoted in higher education in recent years to offer students with the opportunities to learn and practice civic engagement and develop their generic skills. It can help students not only pursue an all-round development which includes critical thinking, problem solving and professional knowledge, but can enhance their citizenship skills and confidence, so as their perceptions of societal problems and social justice (Eyler et al, 1997). Yet, higher education still tends to focus on passing knowledge to students in running an economy than to the civic role that students should play in the society despite that the promotion of SL into undergraduate curriculum already started in the mid-1990s (Suspitsyna, 2012). Same happens in the education arena in Hong Kong. Although community services have been organized as co-curriculum activities on voluntary basis for many years, it was until 2010 that the Hong Kong Polytechnic University (HKPolyU) took the lead in the territory to formally make SL as a mandatory credit-bearing subject in meeting the graduation requirements.

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Faculty	No. of SL subjects (No. of depts. involved)
Faculty of Health and Social Science	14 (4)
Faculty of Humanity	4 (3)
Faculty of Applied Science and Textiles	2 (2)
School of Hotel and Tourism Management	3 (1)
Faculty of Engineering	5 (3)
Faculty of Construction and Environment	5 (3)
<i>Total:</i>	<i>33 SL subjects (16 departments)</i>

Source: Office of Service-Learning, The HKPolyU (http://sl.polyu.edu.hk/05_subject_on_offer.html)

Table 1: Service-learning subjects delivered in 2013-14, HKPolyU

The HKPolyU has a total of six faculties, two schools with 27 teaching departments. Among them, a total of 33 credit-bearing SL subjects were successfully delivered in the academic year of 2013-14 by 16 teaching departments out of the total of 27 departments (Table 1). It is noted that most SL subjects developed were offered by the Faculty of Health and Social Science and Humanity, and some are inter-disciplinary subjects jointly developed by different faculties and institutions from different disciplines. Similar to the experience in other areas, SL subjects are popular in liberal arts colleges and in faculties of humanities but not in technical departments. It is because most technical subjects, such as engineering and building, in single discipline can hardly address complex societal problems and civic engagement effectively. Therefore, SL programs offered by technical department commonly involve inter-disciplinary studies and collaboration with local communities and social groups for field services which are costly and difficult to sustain. Even worse, the lack of a philosophical framework and conceptual model in supporting a pragmatic approach for addressing complex social issues is another issue for the development of SL in technical departments. Similar difficulties encountered by the teaching staff members of the technical departments of the HKPolyU have also been voiced out in the experience-sharing workshops. To fill the gap, the study is conducted with the aim to help technical departments develop a signature pedagogical model using inter-disciplinary study of encompassing the transfer of technical skills and civic & field education.

2. LITERATURE REVIEW

According to Kerins (2010), higher education plays a dual-role of not only preparing students with the skills and capacity that contributes to their career development and the economy, but also contribute to strengthening the well-being of the society. In addition, Lucas (2009) comes up the four broad essential learning outcomes of SL agreed by colleges and universities which include acquiring intellectual and practical skills and knowledge of human cultures and the physical world, undertaking integrative and applied learning across general and specialized education, assuming personal and social responsibility through civic engagement. A study conducted by Eyler et al. (1997) with 1500 students from 20 colleges and universities found that students who undertook SL combining community service and academic study have improvement on their attitudes, generic skills and understanding on social issues than those who did not. Langstraat and Bowdon (2011) also evidenced that SL increases student motivation and can enhance students' intellectual and emotional development. However, translating these teaching and learning objectives into common conceptual frameworks and complementary pedagogies for education

institutions to follow is not an easy task. According to a recent study of Mayhew (2012), SL subjects are popular in liberal arts colleges and in faculties of humanities but not in departments with intellectual orientations such as building and engineering. These departments which are less associated with services related to humanistic orientations have to develop SL in form of inter-disciplinary study (Wentworth and Davis, 2002). Many scholars have drawn upon the importance of the use of inter-disciplinary studies. Wentworth and Davis (2002) define inter-disciplinary studies as an integrated learning that insights can be drawn only by combining the study of two or more disciplines. Schneider (2003) states that inter-disciplinary learning can help integrate knowledge and modes of thinking from two or more disciplines to create products, solve problems, and offer explanations that help prepare students for taking up social responsibility and civic engagement. Miller and Mansillar (2004) adopt an Explanation-Action approach which states that there is a gap between teaching and application. Only by use of inter-disciplinary knowledge to define the problem of the dynamic environment while drawing from other domains that can help form solutions and intervention, the gap can be filled.

A number of approaches and successful cases can be drawn to illustrate the merits of SL by use of inter-disciplinary teaching. The SL program of Kennesaw State University was developed in 2001 for students to study the human rights and welfare state of the Maya community. Faculty from multi-disciplines including nursing, history, political science, art, and education join together to help the minority of Maya community to benefit through learning about health education, laws and customs of the States. Although the program has been popular, it is not able to accommodate all interested students to take part in the program due to limited resource available (Lucas, 2009; Kennesaw State University, 2011). Similar situation has also been faced by LifeWorks program offered by Mars Hill College in North Carolina. The community-based activity is packaged in form of a capstone project which allows students to reflect on their learning, experiences, and personal growth (Mars Hill College, 2013). However, due to the substantial time taken to design, implement, and assess civic engagement tied to these courses, there are only limited spaces offered for student enrollment. Similar restriction is also found in New Century College. Although the SL programmes has excelled students' critical thinking, communication, problem solving, and cultural competencies, but faculty has to spend twice the effort in these offers compared to regular courses, and thus SL is being considered inefficient because of the lack of a philosophical framework and conceptual model which can support a pragmatic approach for addressing complex social issues. Similar difficulty is also encountered by the HKPolyU. Although resources are made available, there is still a lack of a pragmatic signature pedagogical model guiding technical departments on the development of SL subjects. As stated by Jones et al. (2013), if higher education is serious about preparing students to be civically engaged citizens, leaders of higher education must find ways to overcome the hurdle.

3. METHODOLOGY – THE 3-STAGE SL APPROACH

Bringle and Hatcher (1996) state that creating measurable and attainable learning outcomes can strengthen the integration of civic engagement and application of professional skills and knowledge in the development of SL. The pre-set learning outcomes will also guide the development of appropriate learning activities and provide with the basis for conducting formative and summative evaluations of the subjects (Thomas et al. 2011). Meyer-Adams et al. (2011) state that administrative structure of SL, the logistic feasibility, instrumentation, data gathering, and use of results for affirmation and improvement are

equally important. Furthermore, Bogo & Vayda (1998) advocate that practice generates effective learning through two interlinked processes. One is subjective reflection of students' understanding and reactions to the practice situation. The second process involves conceptualization of the practice situation through making connections to theory. By encompassing the critical elements aforesaid, a 3-Stage SL Approach has been developed which is able to help students from technical departments connect the inter-disciplinary theories to conceptualize the practice situation with the aim not only to acquire the technical knowledge but also foster their sense of civic responsibility.

As shown in Figure 2, Stage 1 begins with a comprehensive review of the subject area and the objectives to achieve. It aims to work out the pedagogical design for conducting the transfer of technical knowledge and the address of social issues by use of inter-disciplinary teaching through collaboration between the academic and community organisations. Once the pedagogical design is formed, it comes to Stage 2 that students will be assigned to perform services in the community and to collect the necessary data for meeting the objectives. Evaluation will be conducted in Stage 3. Students will reflect upon their experiences in the community, synthesize the information collected, evaluate the situations encountered and contextualize their civic responses in both pre- and post-program evaluations and reflective journals. The 3-Stage SL Approach is different from most SL initiatives in which students participate in a highly structured pedagogical design involving collaboration between the academic institution and the community organisations. To evaluate the effectiveness of the Approach, a project-based subject studying the contemporary issue of sub-divided housing of underprivileged households in Hong Kong has been developed in form of an inter-disciplinary SL capstone project by the Department of Building and Real Estate.

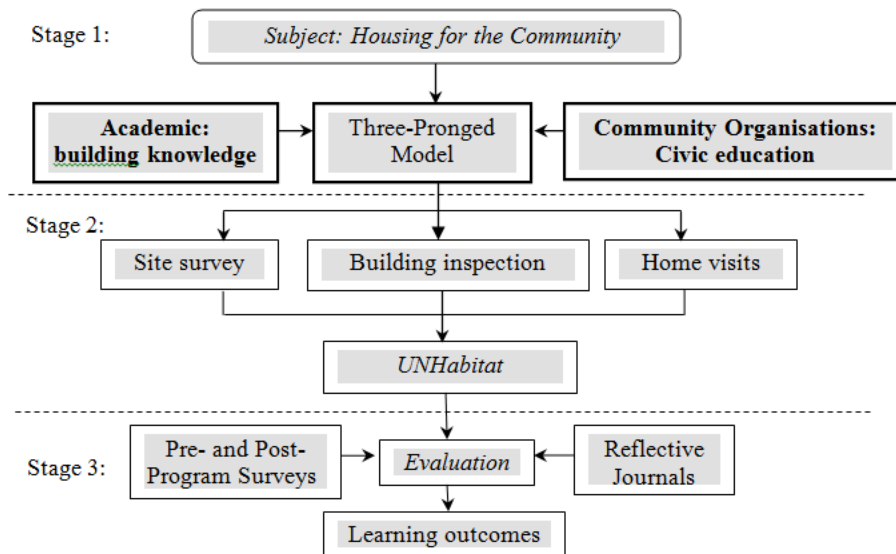


Figure 2: 3-Stage Service-Learning Approach

4. THE 3-STAGE SL CAPSTONE PROJECT – HOUSING FOR THE COMMUNITY

There are many old and dilapidated buildings in Hong Kong which are often targets of rehabilitation and redevelopment. However, the underprivileged community, such as the elderly, the singletons, the immigrants, the less educated and the poor, living in deprived housing are often the most vulnerable when they have to face the poor living condition and

possible eviction, especially in districts with urban decay. In collaboration with the relevant community service groups and institutions including the Urban Renewal Authority, the Housing Society, the Society for Community Organisation, and Engineers Without Borders, a SL subject, Housing for the Community, was developed for students to address the housing problems that underprivileged members have to face, and to assess whether the housing standards as prescribed by UNHabitat have been met (Table 2).

Adequate housing	UNHabitat categorization
Affordability and security of tenure	(1) Security of tenure (6) affordability (8) accessibility
Habitability of housing unit	(7) habitability
Building condition	(2) Materials (4) facilities
Community Services and Facilities	(3) Availability of services (4) infrastructure (9) location (10) cultural adequacy

Source: UNHabitat, 2009

Table 2 : Adequate housing standards prescribed by UNHabitat

The project was expected to help students not only broaden their knowledge in regard to technical building skills, but also develop their sense of civic responsibility with the objectives to achieve: 1. apply the building knowledge and skills acquired to help the underprivileged community, 2. demonstrate empathy for disadvantaged people and enhance awareness of the community, and 3. reflect on their role and responsibilities as a responsible citizen.

In Stage 1, by use of lectures, seminars and workshops, students were equipped with the *knowledge* and able to *comprehend* what they learned through hands-on training. Lectures were delivered by instructors to provide students with an understanding of the building knowledge and skills relevant to their profession. Seminars were also given by practitioners in the industry and social groups including the Society for the Community Organisation to share their views about the living condition of the most vulnerable groups in the society and the difficulties and social issues that they face. Collaborative workshops were organized with community organisations to give students with hands-on training before conducting the home-visits. The workshops were of significance as through coaching of the instructors and practitioners, students had learned the importance of self-control and emotional regulation in handling with people who might come from a difficult background through role-playing and perspective taking. Technical workshops were also organized in performing building inspections given by Engineers Without Borders, the Urban Renewal Authority and the Housing Society, and the assistance schemes available for helping these residents and for improvement of the living environment.

In regard to the field services in Stage 2, guiding by the Three-Pronged Model, *Home visits* were conducted to examine the satisfaction on housing of disadvantaged households. Information in regard to the health and safety of the buildings and the utility and recreational facilities of the community were collected by *building inspection* and *site survey*. Students were required to plan the activities for performing the community services under the guidance of the supervision team which included preparing for the site investigation, building inspection checklist, interview questionnaire for the home-visits, and consolidating and analyzing the information collected. Consultations and periodic reviews were arranged

by the supervision team in which students reported their progress of the community services and the difficulties encountered before further progression. Based on the problems encountered by the community members and their housing needs identified from the surveys, students playing a role as a service advisor would then search for the assistance schemes available to meet the specific needs of the impacted households.

In regard to evaluation of the project outcomes in Stage 3, both pre- and post-program evaluations were conducted with students by use of questionnaires and reflective journals. Reflective journals were used to evaluate not only the living conditions that the service recipients encountered, but also the role of the students that they played as a responsible citizen. The questionnaire was used to assess the efficacy of the curriculum and pedagogical design of the subject, the improvement of the students' generic skills and demonstration of social responsibility. A 5-point Likert scale was used in the rating with 5 represents the most importance and 1 represents the least. A total of 46 students enrolled in the study carried out during the period from June 2012 to December 2013, and 50 disadvantaged households, either by cold calls or referred by the community organizations, were interviewed. They live either in SDUs, partitioned rooms or bedspace. The summary statistics of these households including their demographic characteristics are contained in Table 3 and 4.

	Mean	Median	Min	Max
Internal Floor Area (m ²)	3.1	3.0	2.0	6.0
Age	35	32	1	75
Family size	2	2	1	4
Rent (HK\$)	2498	2500	1300	4000
Household income (HK\$)	7900	8000	3000	14000
Rent-to-Income Ratio (%)	33	32	23	57
Tenancy (years)	2.58	1.50	0.50	8.00
Applied social housing	Yes		No	
	15 (30%)		45 (70%)	
Financial Support	Employed	Social Support	Savings	Students
	32 (64%)	15 (30%)	1 (2%)	2 (4%)
No. of households	50			
No. of members	97			

Note: statistics are per household except Internal Floor Area and age which are per household member.

Table 3: Summary statistics of interviewed households

Family Type	No. of households	No. of members
Family	5 (16.5%)	18 (31.0%)
Single-mom with children	3 (10.0%)	8 (14.0%)
Couples	8 (26.5%)	16 (28.0%)
Singletons	12 (40.0%)	12 (20.0%)
Others: students	2 (7.0%)	4 (7.0%)
Elderly (≥ 60 age)	7 (23.0%)	11 (19.0%)
Hong Kong citizens	22 (73.0%)	42 (72.0%)
New immigrants	8 (27.0%)	13 (22.0%)
Ethnic Minority	6 (20.0%)	15 (26.0%)

Table 4: Family types of interviewed households

5. DISCUSSION OF FINDINGS

Objective 1: Apply the building knowledge and skills acquired to help the underprivileged community

In regard to the pedagogical design of the teaching by use of inter-disciplinary study, students find the technical workshops offered by the departmental teaching staff and the community organisations particularly useful for carrying out the following site survey, building inspection and home-visits. According to the assessment of the students stated in the reflective journals, although the districts under the study are affected by urban decay, the public facilities and community services which include the provision of education, medical and recreational facilities are found adequate. However, in regard to the condition of the buildings where the disadvantaged households accommodate, serious safety and hygiene problems are found, many of them are resulted from illegal structures. They include concrete spalling, improper fire exit and expired fire-fighting equipment, scattered electricity wires, and even rats and cockroaches. In regard to home visits, most interviewed households lived in sub-divided units. They face not only sub-standard housing with poor health and safety conditions, but also under-consumption of space, problems of tenure security and affordability. For example, a family of three jammed in a cubicle of only 100 sq. ft, concrete spalling, water seepage, debonding of plaster and electrical short-circuit are common due to the unauthorised alterations made inside the units. Although these units possess the facilities of independent kitchen and washroom specified by the UN, they can hardly meet the health and safety requirements. Nevertheless, upon identifying the unique problems that the households face, students are able to look for the assistance schemes to help ease the problems of the households. They include, for example, the Integrated Building Maintenance Assistance Scheme offered by the Urban Renewal Authority and the Housing Society, Public Housing Schemes offered by the Housing Authority and Subsidy for Building Improvement by the Community Care Fund.

Objective 2: Demonstrate empathy for the disadvantaged people and enhance their awareness of the community

Post-programme survey has been conducted with the students for evaluating the impact of the study on students. The findings reveal that students treasure the learning experience of the subject with a high average score of 4.48. Besides, they are more aware of the needs in the community (4.48) and their social responsibility (4.64) upon completion of the project.

Table 5: Rating of students on the efficacy of the pedagogical design

<i>Efficacy of Pedagogical Design</i>	<i>Rating</i>
Become more involved in the community	4.30
Will continue to be involved in the community service	4.44
My work benefited to the community	4.50
Be more aware of the community's needs	4.48
Have the social responsibility to serve the community	4.64
Can make a difference in the community	4.10

Can apply the knowledge learned to the project	4.18
Treasure the SL subject/project	4.48

Here is a quote of the reflexion of a student which can represent the general views of most students in this subject:

“Getting myself enrolled in this course has broadened me with new perspectives when looking at housing problems, which include the lack of facilities, social welfare and services, poor building structure and others. These problems cannot be alleviated unless different parties bear their own responsibilities. ... By getting ourselves to home-visit the disadvantaged households, it made me more aware of and understand the real needs of these families. We have always been sitting in classroom, getting lectured and studying issues that others have raised, so what is better than getting into a real situation, knowing what people needs, and finding out the problems and solutions by ourselves?”

Objective 3: Reflect on their role and responsibilities as a responsible citizen

In regard to social and civic responsibilities, pre- and post-programme evaluations have been conducted to study whether their sense of social and civic responsibilities have been enhanced. The findings reveal that students are more concerned about the well-being of people in the community upon completion of the project (Table 6). They are more willing to help others even if they don't get paid for it. However, it is interesting to find that the rating in regard to making contributions to meeting the needs of the community went down slightly from 4.13 to 4.1. From the reflective journals, the findings reveal that some students felt frustrated when they saw the deprived housing encountered by the underprivileged households but could do little to help except showing them the caring. As cited by a student:

“In our case study, the households clearly reflected that living in a small cubic is not the type of living that they want, but they have no choice ... Being students, we have no power and no money. ... Although we cannot give them tangible help, we would like to fulfill our roles. We believe that each tiny contribution from everyone can form big power to change the society in the long run. As a member of this society, we should act rather than just sitting in the classroom, go and seek for changes.”

<i>Social and Civic Responsibilities</i>	<i>Pre-Prog</i>	<i>Post-Prog</i>	<i>% change</i>
Concern the well-being of the people and the community	3.84	4.16	8.33
Be enthusiastic in serving the needy people	4.10	4.3	4.88
Help others even if I don't get paid for it	4.20	4.34	3.33
<i>Make contributions to meeting the needs of the community</i>	<i>4.14</i>	<i>4.1</i>	<i>-0.97</i>

Table 6: Pre- and post-program evaluations on social and civic responsibilities

6. CONCLUSION

Substantial numbers of studies have been conducted to explore the functions and pedagogical design of SL which can help students develop their civic responsibilities and

achieve an all-round development. However, many of them are confined to liberal and humanities studies but not in technical subjects which are less associated with social services. Very often, the hurdle that they face is the lack of a conceptual framework and a signature pedagogical design to follow. To fill the gap, the study has proposed the 3-Stage SL Approach for the development of SL subjects, in particular for technical subjects such as building and engineering, by use of inter-disciplinary field study which can support technical teaching tied to themes of service-learning and civic engagement. The Approach is different from most SL initiatives in which students participate in a highly structured pedagogical design not only acquiring technical skills but also serving a particular community. A SL subject, Housing for the Community, in form of a capstone project was developed based on the 3-Stage SL Approach. The findings reveal that the subject has been able to help students acquire the necessary technical skills for conducting building inspection, they are more aware of their civic responsibilities and concerned about the well-being of the society after the study.

Although the 3-Stage SL Approach has offered a pragmatic pedagogical model for upholding the transfer of technical knowledge and the address of social issues by use of inter-disciplinary study which suits SL for engineering and building faculties, yet, more studies on the application of the Approach on other disciplines such as electrical and mechanical are warrant.

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Session 3

Academic Elements

Service-Learning as a Core Academic Component in Undergraduate Programs – A Brief Introduction to The Hong Kong Polytechnic University Model

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ABSTRACT

Community engagement has been integrated into undergraduate programs to varying degrees in many universities. The Hong Kong Polytechnic University, in particular, has made it compulsory for all students to take at least one credit-bearing subject in Service-Learning (SL). Each SL subject is offered with purpose-designed academic teaching, rigorous service and structured assessment components. At full implementation, in each year, more than 2,800 students enrolled in 4-year full time undergraduate programs are expected to enrol in around 60 subjects offered by a wide range of departments and faculties across the university. They cover a diverse range of topics, such as digital divide, learning difficulties, engineering design, healthy living environments, orthotics, and eco-tourism, to name a few examples. The target beneficiaries are equally diverse: students serve slum dwellers, disabled people, children with HIV, villagers without water nor electricity, new immigrants, mentally ill patients, ethnic minorities, and so on. To date, they have served in Hong Kong, Chinese Mainland, Cambodia, Vietnam, Indonesia, Myanmar, and Rwanda. This paper reports on the pedagogical design of the program, challenges and strategies for implementation, and the experiences so far, with around 2,000 students enrolled in 2013-14.

Key Words: Service learning, academic requirement

1. INTRODUCTION

In 2012, there was a rare opportunity for reform in higher education in Hong Kong. All public-funded universities changed from a 3-year undergraduate degree structure to a 4-year one. One intended benefit of the change is that “(t)he higher education institutions will be in a better position to provide a balanced education to their students, through an integrated 4-year undergraduate programme, that allows for a broader knowledge base to support specialised learning” (Education and Manpower Bureau, 2005, p. 12). Internationally, increasing emphasis has been put on the role of universities in educating students into socially responsible citizens with a heart to serve the community (e.g., Andrzejewski and Alessio, 1999; Purdue, 2005; Mohamedbhai, 2011; UNESCO, 2009).

The Hong Kong Polytechnic University (PolyU)’s strategic plan states that its core business is to “develop all-round graduates with ... social and national responsibility, and ... global outlook ... with responsible citizens ...” To this end, the university has successfully encouraged many students to engage with society through community service, mostly in the form of non-credit-bearing, co-curricular activities both local and offshore. With the approach of the new curriculum, the university realised that it could do better in the more intangible areas of civic responsibility, social justice and ethics. Hence it took the opportunity afforded by the change to stipulate a Service-Learning Requirement, in which all students are required to successfully complete a 3-credit subject with an approved SL component in order to qualify for graduation. To plan and

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prepare for the implementation of the university-wide SL Requirement is a mammoth task, as it involves the development of more than 60 SL subjects, offered by more than 20 academic departments, to cater for over 2,800 students each year. There are major challenges including:

1. Designing a rigorous academic structure for the development, offering, and quality control of SL subjects.
2. Cultivating long-term service projects and collaborative relationships with external collaborators such as non-government organizations.
3. Building a critical mass of academic staff with the passion and expertise to offer SL subjects.
4. Developing a robust mechanism for funding SL subjects and associated projects.

This paper will examine the major challenges and the institutional strategies in meeting these challenges, which constitute an outline of the “Hong Kong Polytechnic University Model of Service-Learning”. The model is obviously still under development. It is also not necessarily unique. In the development of the institutional strategy, we have carefully studied and researched experiences at many institutions, including University of San Francisco, University of Pennsylvania, Tufts University, Purdue University, among others, as well as the consolidated information at Campus Compact. We have adopted many of their good practices, hence, the reader may find many similarities. Nevertheless the PolyU experience offers a serious and practical case study for ourselves, as well as other institutions and educators. We will also report briefly on the progress made so far.

2. ACADEMIC STRUCTURE

As an important type of experiential learning, SL integrates community service with instruction and reflection to enrich students’ learning experience, in order to achieve intended institutional or program learning outcomes. It enhances students’ sense of civic responsibility and engagement on the one hand, and benefits the community at large on the other (NSLC, 2006).

2.1 A Credit-bearing Service-Learning Subject

Service-learning has certain similarities with, but is not the same as, volunteer work. While volunteer work stresses service without compensation or reward, service-learning calls for a balanced approach integrating community service with learning, and emphasizes learning through participation in services (Furco 1996). Hence students’ self-reflection and assessment are critical elements of service-learning (Bringle & Hatcher 1999).

At PolyU, a relatively broad definition of service-learning is adopted. It primarily focuses on activities that serve people directly, but nevertheless also covers indirect service activities relating to civic responsibility and engagement. It can include direct service activities such as tutoring of children in poverty, construction for remote villages, and health education for under-developed communities as well as indirect services such as field research on sustainable development and advocacy for social justice. Both local and offshore activities are included. Students are also “rewarded” by academic credits when academic objectives are achieved.

PolyU is a comprehensive university with a wide range of disciplines. Each academic program is typically composed of Discipline-Specific Requirements (DSR) and General University Requirements (GUR). GUR includes languages and general education subjects, with a total of 30 credits and is equivalent to one year’s worth of studies. Service-Learning is designed as a 3-credit subject as part of the GUR.

A SL subject can be offered by any academic department. It may target general issues such as poverty relief or assisting the elderly; or it may target more specific issues such as assistive devices for the handicapped, housing problems, or dyslexia. It may require generic skills such as communication in English and Chinese; or it may require discipline-specific skills such as bridge-building, accountancy, nursing or graphic design. It may be designed for all university students; or for students from a specific discipline of study. Put simply, an academic subject qualifies as a SL subject if it satisfies the following:

1. Clear academic objectives and expected outcomes for the students, which may be generic, discipline-specific, or both. Four common learning outcomes have been specified for SL subjects, while individual subjects may specify additional learning outcomes. The 4 common outcomes are:
 - i) Apply the knowledge and skills they have acquired to deal with complex issues in the service setting
 - ii) Reflect on their role and responsibilities both as a professional in their chosen discipline and as a responsible citizen
 - iii) Demonstrate empathy for people in need and a strong sense of civic responsibility
 - iv) Demonstrate an understanding of the linkage between the academic content of the subject and the needs of society
2. A significant amount of community service activities (at least 40 hours, roughly one-third of the total amount of the expected student effort for a 3-credit subject), which address identified needs in the community in a meaningful way, which must be supervised and assessed.
3. A rigorous process for student reflections, on the linkage of their studies to the needs of the community and the services, their personal role and growth, and the impact of their services.

2.2 Variety in SL Subjects

Based on literature and the experiences of other universities, it is recognized that the common SL learning outcomes can be achieved in many different ways. Each subject may differ in the background of the students, the associated academic discipline, the type of services involved, the type of clients served, the location, etc. SL subjects are offered by a wide range of academic departments rather than a specific department such as social work, public affairs, etc. At this point in time, 2 years after the policy came into effect, about 90% of academic departments at the university are offering at least one SL subject, and soon, hopefully, it will be 100%. Table 1 shows some examples of subjects designed for students with different backgrounds.

Broadly speaking, there are two major types of SL subjects. There are “general education” types (referred to as General University Requirement, GUR) subjects. They are intended to enhance students’ general knowledge. They do not require specific pre-requisite subjects or knowledge beyond what is required of all undergraduate students: basic language skills, analytical skills, computer literacy, etc. Hence many GUR subjects are open to all undergraduate students, without pre-requisites. There are, nevertheless, some GUR SL subjects that are designed for students with certain backgrounds, such as engineering, health-related disciplines, business, etc., so that they carry out specific services.

At the other extreme are subjects that are designed for students in a specific discipline, e.g., optometry, English, biomedical engineering, etc. These are designed so that students specialising in professional disciplines can use their specialist knowledge to

serve, and in the process enhance their professional expertise. These are generally designed for students in their senior (i.e. 3rd or 4th) years of studies.

All SL subjects, including those that are open to all students, are expected to have strong academic objectives and learning outcomes. Students are given rigorous training in the academic elements and relevant skills prior to engaging in the prescribed community service projects. And they are rigorously assessed in the achievement of the expected learning outcomes. For example, the “Technology Beyond Borders” subject is focused on information technology. One of the main topics of study is the “digital divide” between communities with advanced IT technologies and those who are without. Students learn about the digital divide, appropriate technologies and methods for bridging it, and then participate in service projects applying those technologies and methods.

	Sample Service Learning Subjects
GUR subjects open to all students	Technology beyond borders: service-learning across cultural, ethnic and community lines Advancing oral presentation skills through teaching Engaging fashion as a communication media for the needy Social Justice in Private Housing Redevelopment Promotion of Children and Adolescent Development Building green communities with environmental NGOs Preserving Cultural Heritage for Ethnic Minorities in Contemporary China Growing resilience of children in post-disaster areas
GUR subjects for students with certain backgrounds	Understanding learning difficulties Land and resource management for sustainable rural development Financial literacy for low-income youths Serving school dropouts Serving people with special needs through assistive technology Built Environment Enhancement for Underprivileged Communities Promotion of Healthy Ageing in the Community Design and building for remote communities Reducing the Scientific Divide in Secondary Students through STEM (Science, Technology, Engineering and Mathematics) Projects
Discipline-specific subjects	Biomedical engineering services for people with physical disabilities Teaching Chinese as a second language Teaching English as a Service Learning Experience Enabling occupation in home and community practice Public health optometry Accounting and Internal Control in the Elderly Centre through Service Learning Community Tourism: Tour, Training, Operator, and Event from and for the Community Indoor Environment for Serving the Elderly

Table 1: Sample Service Learning Subjects

2.3 Large SL Subjects

The first strategic decision regarding service-learning was to make it credit-bearing. The second was to make it compulsory for all undergraduates. There are two major arguments for the decision. Firstly, the learning objectives of civic responsibility, social justice and ethics are critical components of all-round education, and hence should be required of all students. Secondly, it is often those who would not volunteer for community service that need the exposure.

These two decisions create a need for large numbers of SL subjects and places for students. At many universities, service learning is carried out in the form of small classes of, e.g., 20 students each. Usually the students select the SL subject or project voluntarily. They are highly motivated. Hence the subjects may not be very structured, allowing a high degree of autonomy for the students in designing and carrying out their projects. Many of the SL subjects at the PolyU also fit this pattern.

The offering of service learning subjects to large classes (e.g., over 100 students), however, may be one of the distinguishing characteristics of SL at PolyU. This is a result of both necessity and design. On the one hand, there is a need to provide thousands of places each year for the students who are required to take SL subjects; hence the need for large classes. On the other hand, some of these students may not be as highly motivated as some others, having been required to take a SL subject - even though they do have a wide variety of SL subjects to choose from. Hence there are some SL subjects in which the service projects are highly structured, which can also accommodate a large number of students. For example, a subject that addresses the

enhancement of teaching of science at secondary schools may enrol 100 students. It may send 50 PolyU students to one secondary school, with 10 PolyU students in one classroom for 40 secondary students, to help the secondary students carry out pre-designed science projects. Another 50 students may be sent to another secondary school, with similar projects. Within this structure, however, there is still a lot of room for autonomy and self-initiative. For example, the PolyU students may be given only a general topic for the science project, and they have to develop the projects details, procure the materials, write the lesson plans and worksheets, etc.

2.4 Sub-committee on SL subjects

The sub-committee is composed of academic staff from diverse faculties and departments. It invites proposals for new subjects, vets the proposals and finally recommends them to the university for final approval. It is composed of faculty members experienced in SL and general academic matters. It is also composed of members from a broad spectrum of faculties and departments, to ensure that it represents a balanced academic viewpoint.

The sub-committee works closely with the Office of Service Learning (OSL), which can be considered the operational arm of the support structure. The OSL assists departments in developing subject proposals, projects, and student supervision. More on the OSL in a subsequent section. The complementary roles of the sub-committee and OSL can be summarized in Table 2.

Sub-Committee on SL subjects	Office of Service Learning
Vetting of subject proposals	Assisting in development of proposals
Formulating of policies and procedures	Administration of policies and procedures
(developing) Quality Control	Assisting in the teaching of SL, execution of service projects, and other support activities

Table 2: Complementary roles of sub-committee on service learning subjects (SCSLs) and the Office of Service Learning (OSL).

The decision to make SL credit-bearing and compulsory was made in December 2010, while the decision applies to the cohort of students entering in 2012, which is expected to graduate by 2016. Between 2011-14, the sub-committee and OSL worked very hard to develop SL subject proposals. Approximately 15-20 new subjects are approved each year. By June 2014, 49 subjects from 22 academic departments have been approved. While new subjects continue to be developed, the focus now necessarily shifts to the development of a process to rigorously evaluate SL subjects, consolidation, research on effective pedagogy, and evidence-based improvement.

The fact that SL subjects are offered by multiple departments poses particular challenges in quality control. Generally academic departments are responsible for quality control of the subjects that they offer. However, as most departments offer only a few SL subjects, of which half of the contents may be related to community service or other issues not necessarily in the core expertise of the department, there is an on-going discussion in favour of a centralized unit to oversee the operation of SL subjects across campus. There is also an on-going teaching development project on the evaluation of SL subjects, which will provide research-based input to the development of a rigorous academic quality control process for SL.

3. OPERATIONAL SUPPORT

Several departments are already experienced in SL prior to the changes in 2012, because of the nature of their discipline. These include departments such as social work, nursing, rehabilitation sciences. Some departments, such as computing, design and biomedical engineering, have acquired some experience because of their own initiatives. Most other departments and their staff, however, are

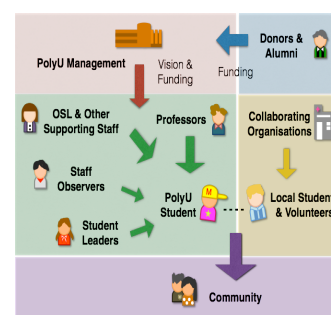


Figure 1: Relational Model of Service-Learning.

relatively inexperienced. Hence it is important for the university to provide needed support for developing subject syllabi, teaching methods, service projects, etc. The need is also evident from studying practices at many leading universities. Hence the Office of Service-Learning was formed to provide central support and coordination.

3.1 Office of Service Learning (OSL)

The OSL advises department and academic staff in developing subjects and projects, liaise with non-government organizations to find suitable projects for the teachers, liaise with funding agencies and donors to support projects, offer staff development workshops and courses, and organize a number of exploratory projects.

Working closely with the committee in charge of vetting subject proposals, the OSL also developed an eLearning module for students that covers basic concepts on service learning that can be used as a core part of a SL subject. The module requires 10 hours of student efforts to complete. It was rolled out in January 2013, and is being integrated into many SL subjects. It reduces the teaching load of the teaching staff, ensures some consistency in teaching, and in general promotes the implementation of service learning.

3.2 Collaboration with external partners

In most cases, the service projects are carried out in collaboration with external organizations, such as non-profit organizations, primary schools, secondary schools, and other universities. In some cases, the PolyU staff carry out most of the work, while the external partner contributes little. For example, in some of the projects aimed at reducing the “scientific divide”, the partner school is responsible for providing the students and the venue. The PolyU staff are in charge of the service projects: designing the projects, providing the project material and notes, sending the PolyU students to the school as tutors, etc. The collaborating schools are responsible for selecting the students to participate, scheduling the sessions and venue, etc. Such a subject will be positioned close to (perhaps 10% from) the left edge of the diagram in Figure 2.

In some other projects, the external partner may play a much more significant role. This is particularly true for offshore projects in the Chinese Mainland, or overseas. For example, we collaborate with a local university in Indonesia. They have a strong service learning program, have good connections to the local government and many villages around Yogyakarta, and their students speak the local language. In this particular case, the local partner takes a lot of initiatives in the planning of the services, selection of villages, logistics, accommodation in village homes, interpretation, etc. The PolyU staff in charge work closely with the local university, and retain full control in supervising and assessing our students in the execution of the service projects. The case will be positioned near the middle of the diagram in Figure 2, around (perhaps even 10% to the right of) the dotted line.

Many of the projects occupy some point in between the “scientific divide” case above (PolyU having practically full control) and the “Indonesia” case (our partner doing much of the planning and logistics). For example, we have been sending teams to Cambodia since 2010, built up many good contacts and a good understanding of the local transportation and accommodation. Hence we are able to control a lot of the planning, selection of projects, logistics, etc., although we still have to rely on our local partners for interpretation. At the same time, we are helping some of our partners to build up their service-learning capacity and experience. This case will be positioned about 25% from the left edge of the diagram in Figure 2.

Never in our program do we give complete control to our external partners in a service project. Service Learning is a core requirement of the university and hence, it is not something that we feel should be out-sourced to external partners. Hence the range of collaboration relationships supported in the PolyU model covers generally the left half of the diagram in Figure 2.

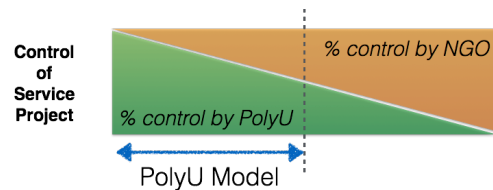


Figure 2: Collaborative relationship between university and service learning partner.

4. STAFF DEVELOPMENT

There were few academic staff who had significant experience in developing, delivering and assessing credit-bearing service-learning when we started implementing academic credit-bearing SL in 2011. On the other hand, at full implementation, we probably need an estimated 100 academic staff to teach around 60 SL subjects, some of which will be taught jointly because of the large class size, heavy supervisory duties, or the multi-disciplinary nature of the subject or services. Hence staff development is critical. A number of actions have been taken, many of which have turned out to be highly effective.

4.1 Workshops and seminars

From the start, workshops and seminars were heavily used to promote the concept of service learning, as well as to educate staff on aspects of teaching an SL subject. These seminars were organized on the average of once a month, on a broad range of topics: the policy on service-learning, how to write a syllabus, how to assess students' performance, etc. At the beginning, expert speakers were invited, but, increasingly, internal speakers experienced in various aspects of SL are providing these workshops.

4.2 eLearning

An eLearning short course for staff have been developed and deployed in September 2012. It takes 3 hours to complete and covers the basic concepts, advantages, myths, subject and project development guidelines, samples of SL subject syllabi and projects, etc. (Shek & Chan, 2013). More than 50 staff members have since taken the eLearning course. An evaluation survey found that overall satisfaction with the eLearning short course was around 4 out of a maximum of 5. Many who have taken the course have gone on to propose and teaching SL subjects themselves. It has also been shared with staff from other institutions.

4.3 Practical training

Staff who are interested but perhaps less experienced in offering SL subjects are given opportunities to participate in service projects to acquire hands-on experience. Starting in 2011, interested staff have been invited to participate in the Cambodia SL project as observers. A practical experience short course was offered for the first time in summer 2013, and repeated in 2014. Staff join the students on a SL course with a project in Cambodia to acquire first hand experience in supervising and monitoring students' performance, planning service projects and in collaborating with NGOs. Several of the staff who participated have come back to become strong advocates and supporters, and SL lecturers.

4.4 Community of Practice

A community of practice is being formed, as a platform for staff to share experiences, collaborate in exploratory projects and research, and to promote the practice of service-

learning. As discussed earlier, SL subjects are distributed among a wide range of departments. As a result, some departments have relatively few (perhaps as few as 1 or 2) staff engaged in SL. It is important to create cross-department community of practice to provide support. The community has a modest budget for supporting small scale projects, attendance at conferences, etc. Regular gatherings allow staff to share experiences and information on writing proposals for new subjects, seeking funding, assessing student performance, etc. Such gatherings are usually well-attended, testifying to their usefulness.

5. FUNDING SUPPORT

5.1 Funding for teaching SL

Starting with the new 4-year degree programs in 2012, SL subjects will be offered and funded like other academic subjects. In addition, it is recognized that service-learning involves significant amounts of activities conducted outside the classroom. Hence there may be a need for additional resources for supporting the subject delivery such as field supervision, travelling and equipment. Hence SL subjects are actually funded at a level that is approximately 30% higher than other GUR subjects.

5.2 Project and travel expenses

Students will learn much more if they can be exposed to and serve communities beyond Hong Kong. While Hong Kong is a part of China, parts of China are so different from Hong Kong that they might as well be different countries, having a different political system, speaking different languages or dialects, eating different foods, and having very different cultural traditions. And then, of course, students are also given opportunities to serve in foreign countries such as Cambodia, Indonesia, Vietnam, Myanmar and Rwanda. Such travelling incurs significant costs. While the university is expecting the students to cover part of their own costs to ensure ownership and accountability, it is also making funds available to subsidize the students' expenses.

It is encouraging to witness that many donors, both individuals and institutions, are quite willing to donate generously to fund SL projects, seeing the benefits to the students and the communities that they serve. Since the initiative started in 2011, donations of approximately two million US dollars have been received.

6. INTERIM RESULTS

6.1 Subjects developed

It is estimated that an average SL subject can accommodate 50 students, and we need to offer around 60 subjects each year to accommodate all the 2,800 students in full-time 4-year undergraduate degree programs needing to take a SL subject, when the initiative is in full implementation.

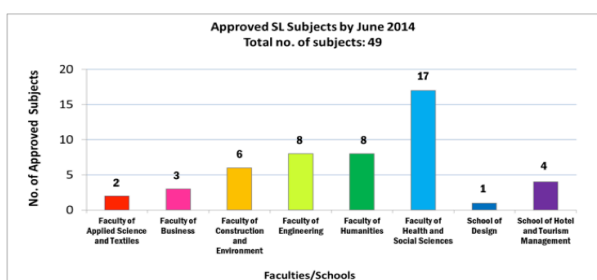


Figure 3: Number of SL subjects approved, offered by each faculty/school

Since spring of 2011, when we started, until June 2014, 49 subjects have been developed and approved. Not surprisingly, many of the subjects are offered by health and social science departments. It is encouraging, however, to see a healthy number being offered by the engineering and construction & environment departments. All faculties and schools are now active in offering service-learning.

6.2 Impact on students

In the academic year 2013-14, around 1,900 students enrolled in SL subjects. They represent all faculties and schools in the university. Not surprisingly, the largest group of students come from the Faculty of Health and Social Sciences, with departments such as Nursing, Social Work, Rehabilitation Sciences and so on.

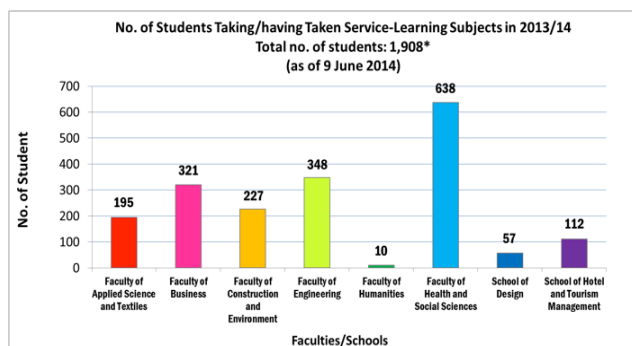


Figure 5: Number of students taking/having taken SL subjects, in each faculty/school.

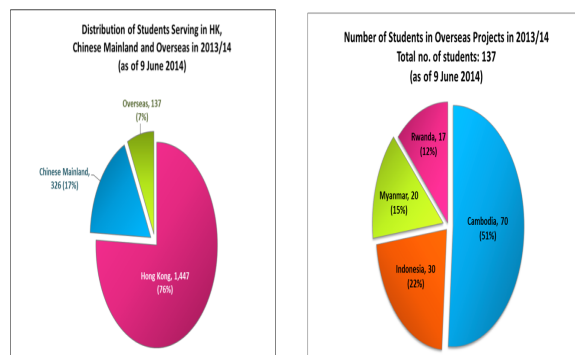


Figure 4: Distribution of students by (left) service location and (right) overseas projects.

Most of the students serve in Hong Kong. A fair number serve in China Mainland. A small but significant number serve in overseas countries, and some as far as in Rwanda, Africa.

Students are surveyed before and after they have taken their SL subjects. At the time of reporting, data has been collected from around 360 students who have completed a credit-bearing SL subject, and the preliminary results are quite encouraging. These are, of course, very early results from a small population. We will have to continue to monitor the implementation of these subjects and perform more in-depth analysis in order to better understand the impact of the initiative.

The objective of the SL initiative at the university is, of course, not only for students to take a SL subject. It is, rather, to cultivate a culture of civic engagement and social responsibility at the university. It is encouraging to observe that some of the students who have taken a SL subject have returned to participate in service project as students assistants and leaders, organise their own service projects, and even developing their own organisations in community service. The university is developing a number of mechanisms, including scholarships, internship opportunities, and participation in SL-related conferences, to encourage and support students in furthering their involvement in service learning.

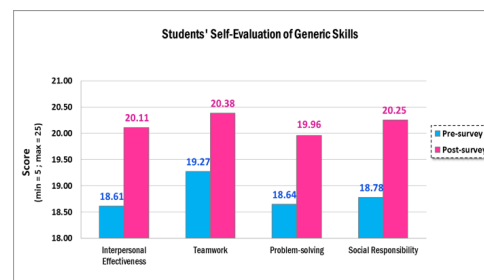


Figure 6: Students' self-evaluation of generic skills before and after taking SL.

6.3 Impact on Staff and the university

When the SL initiative was proposed, and even when it was approved by the university, there remained a significant number of doubters and sceptics. In the past several years, however, there are encouraging signs that more staff members are actively involved. There is as yet no concrete data, but there are indicators in the number of new subjects proposed, number of staff who participate in the Community of Practice, number of new staff involved in the proposing and teaching of SL subjects. We are also seeing increasing interest from alumni, individuals and organisations external to the university, which is concretely reflected in the increasing amount of donations dedicated to service-learning.

7. DISCUSSION

Starting from scratch in 2011, the SL initiative has been largely progressing on schedule. This is the result of adopting best practices from leading universities, determination and strong support from the senior management, clear and balanced policies, the effort of a number of enthusiastic advocates, and most importantly, support from a broad spectrum of staff and students from across the university.

Nevertheless, from the experience in the past three years, a number of issues requiring attention have been identified.

1. Quality assurance - There is a need to ensure that the subjects offered are genuine SL subjects, and that they are taught in the way it was designed.
2. Funding support - Many subjects, particularly those involving travelling and equipment incur significant expenses.
3. Appropriate pedagogy - To develop appropriate teaching methods for different types of SL subjects, particularly for students who do not necessarily participate voluntarily.
4. Scalability - To develop a number of large-scale subjects/projects to accommodate the very large number of students involved

These issues are being addressed actively. Based on the experiences in the past two years and the early results, it is expected that the initiative will be successfully implemented.

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When Service-Learning Becomes the Subject Knowledge: Merits, Challenges, and the Way Forward

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ABSTRACT

Service-learning (S-L) is commonly regarded as pedagogy to facilitate the learning of other subject knowledge. It rarely serves as an independent course that focuses on developing students' knowledge and skills of S-L. In Lingnan University, the Office of Service-Learning takes the challenge to offer a credit-bearing S-L course independent of other academic departments. The course aims to equip students with knowledge, skills and attitudes of S-L and to prepare students for future engagement in service and community. This paper reports a case study of the independent S-L course. It first describes the course development process. Assessment and evaluation data from students are then reported, followed by a discussion of the merits and challenges during implementation, and the way forward. The lesson learned from the case study can help to inform the design of independent S-L courses in higher education and to serve as a reference for educators, faculty members, and staff who are involved in S-L to improve the quality of S-L courses and programs.

Key Words: course development, credit-bearing service-learning course, student learning

1. INTRODUCTION

Lingnan University has a longstanding motto of "Education for Service" that emphasizes on both academic study and community service. Services among students have always been promoting by the University. The University is one of the first among the tertiary institutions in Hong Kong to integrate service-learning (S-L) into its academic curriculum. S-L has been practicing in the University for nearly a decade. It becomes a powerful means to realize the University motto and to actualize the mission of its liberal arts education for developing students' adaptability, creativity and brainpower. Credit-bearing S-L opportunities are offered in two different types of courses below:

- Credit-bearing courses offered by academic departments (also known as departmental courses). Participating students normally use the tutorial hours for services whilst other course requirements, such as lecture attendance, remain the same. Students are generally placed with an agency where they carry out their services. The service element of these courses is decided by the course instructors and closely related to the learning objectives and course content. S-L here is used as a pedagogy that facilitates students' learning of the subject knowledge and related skills taught in the course.
- Credit-bearing S-L courses offered by the Office of Service-Learning (OSL) of the University. Students enrolled in the independent S-L course devote their entire contact hours to S-L. Besides attending lectures and seminars about S-L offered by OSL, students are required to plan and implement an S-L project on their own. S-L is not only pedagogy but also the subject knowledge that students need to grasp upon completion of the course.

To the best of the authors' knowledge, no independent S-L course is offered by an office solely in charge of S-L among the local universities. The independent S-L course is the focus of this paper. It will first describe the developmental process of the course, like

deciding the learning objectives, selecting the course materials, organizing the teaching and learning activities, etc. Next the merits and the challenges involved will be discussed along with data of student learning. The future development of independent S-L courses will be covered in the final part of the paper. Finally, this paper helps inform the design of independent S-L courses and serves as a reference for educators, faculty members, and staff who are involved in S-L to further improve the quality of S-L courses and programs.

2. DEVELOPMENT OF AN INDEPENDENT SERVICE-LEARNING COURSE

2.1 The Model of Service-Learning

S-L is a form of experiential education in which students engage in a cycle of academic study, community service and reflection. S-L enables students to experience the four stage cyclical process of experiential learning by Kolb (1984) (See Figure 1). The service provides students concrete experience in which they test and apply what they learned from the classroom (active experimentation). Through active observation and critical reflection (reflective observation), students conceptualize the experience and observation into abstract theory and knowledge (abstract conceptualization). Students may undergo another active experimentation through continuous engagement in the service.

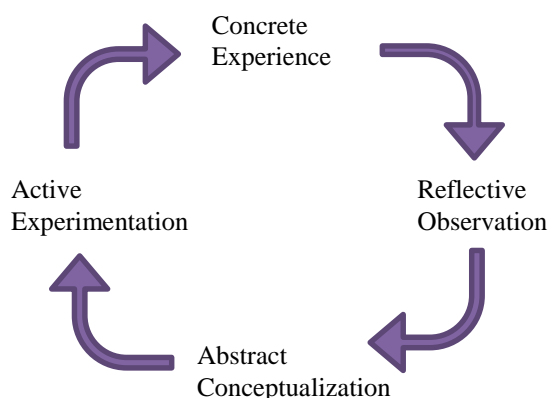


Figure 1. Model of Experiential Learning

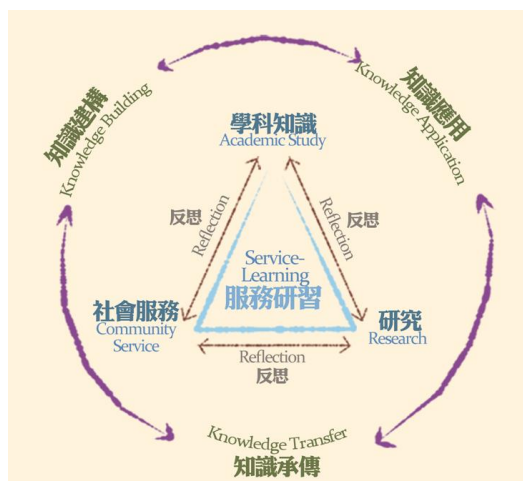


Figure 2. Model of Service-Learning in OSL

Based on Kolb's model of experiential learning, the Office of Service-Learning, Lingnan University, develops its own model of S-L (Chan, Ma, & Fong, 2006). Students not only integrate academic knowledge into their service experience, but also investigate social issues through different research methods. While processing knowledge about the community issues investigated through continuous guided reflection and observation, civic engagement is increased; through the process of knowledge building, knowledge application and knowledge transfer, students have the opportunity to co-create knowledge (See Figure 2).

2.2 The Need of an Independent Service-Learning Course

At the time when S-L was first introduced into the University's curriculum, S-L was still a new concept and pedagogy to both faculty members and students. S-L is very different from lectures and tutorials, in that students assume a more active role in their learning

and they are more reflective in the learning process. Indeed literature suggests that not every experience generates knowledge (Kendall, 1991). A student must:

- Be actively involved in the experience;
- Reflect on the experience;
- Use analytic skills to conceptualize and better understand the experience;
- Possess the skills necessary to use the experience as a springboard to test new ideas.

In response to the need to better prepare students for S-L, the independent S-L course was developed with the aim to equip students with the essential knowledge, skills and attitudes for effective learning from the service experience.

3. COURSE DEVELOPMENT

The independent S-L course entitled “Community Engagement through Service-Learning” was first offered in 2008 Summer at Lingnan University. Its design was guided by the University’s Model of Service-Learning (Chan, Ma, & Fong, 2006; Ma & Chan, 2013) and principles of effective S-L program (Howard, 2001; Kendall, 1991). For example, Kendall (1991) suggests that an effective S-L program should:

- Engage people in responsible and challenging actions for the common good;
- Provide students structured opportunities to reflect critically on the service experience;
- Articulate clear service and learning goals for everyone involved;
- Clarify the responsibilities of each person and organization involved; and
- Include training, supervision, monitoring, support, recognition and evaluation to meet service and learning goals.

Above all, measure is included to ensure that S-L is reciprocally beneficial to students and community. Students engage in meaningful learning experience through service in the community. The community gets meaningful services from the students.

The development of the course has gone through rigorous and iterative process. For the sake of presentation clarity, the Course Development Framework described by Graves (1996) is used to guide the discussion of the course development. Table 1 shows the components of the framework and questions that teachers need to consider for each component.

Needs assessment: What are my students’ needs? How can I assess them so that I can address them?
Determining goals and objectives: What are the purposes and intended outcomes of the course? What will my students need to do or learn to achieve these goals?
Conceptualizing content: What will be the backbone of what I teach? What will I include in my syllabus?
Selecting and developing materials and activities: How and with what will I teach the course? What is my role? What are my students’ roles?
Organization of content and activities: How will I organize the content and activities? What systems will I develop?
Evaluation: How will I assess what students have learned? How will I assess the effectiveness of the course?
Consideration of resources and constraints: What are the givens of my situations?

Table 1. Course Development Framework (Graves, 1996, p.13)

3.1 Needs assessment

From the literature and evaluation of departmental S-L courses, students new to S-L pedagogy might not possess the knowledge, skills and attitudes required to make the best of the service learning experience, such as knowledge of S-L theory, research skills to identify the social needs and issues, ability to reflect on the experience, attitudes to

care and serve the community. The needs of students may be different from year to year. At the beginning of the course, needs assessment will be conducted on the students who enroll the course via Goal Setting Exercise. Students will be asked about their expectation of the course, in particular, what they want to learn from the course. This helps the instructors understand more clearly the needs of students and to address them as early as the start of the course.

3.2 Determining goals and objectives:

This independent S-L course is intended to serve as an introduction of S-L. Its major goals are (i) to equip students with knowledge of S-L theory and skills for conducting their own S-L projects, and (ii) to develop a sense of social commitment and the sensitivity to the needs of the community (i.e. attitude). Upon completion of the course, it is expected that students should be able to:

- Explain knowledge of S-L theories and the situations of communities in Hong Kong;
- Identify various community needs and specify possible solutions to address the needs;
- Think critically about phenomena and issues in the social, welfare and business sectors, both local and global; and
- Develop and evaluate possible solutions in response to specific community needs after careful research.

Indeed the above learning goals and objectives are aligned with the mission of the Lingnan University which emphasizes a whole-person development and community engagement.

3.3 Conceptualizing content

Since the course lets students go through a cycle of S-L experience, the cycle of S-L model is the backbone of the course. The course content is conceptualized into (i) theory and skills *of* service-learning and (ii) theory and skills *for* service-learning. The former includes history of S-L development and its philosophical root, theory of experiential learning, model of S-L, and reflection. The latter refers to the knowledge and skills required for students to design, implement and evaluate their S-L projects. For instance, knowledge and theory about social needs and issues related to student S-L projects, social inequality and social welfare policy, are essential for students to understand the causes and consequences of the social needs and issues, as well as to identify possible ways to address the needs and issues. This becomes the most challenging part and shall be discussed in a later section. Besides knowledge and theory, students may also need the skills to write a project proposal, to organize activities, to communicate with the serve target, to coordinate with agency, etc., so as to conduct the S-L projects effectively. The conceptualization of content into theory of service learning and theory and skills for service learning helps the course instructors to decide the core content to be covered in every semester and special focus varied by the nature of student S-L projects.

Theory and Skills of Service-Learning	Theory and Skills for Service-Learning
Experiential learning, model of S-L, history of S-L development, reflection	Knowledge/theory of social needs/issues, event organization skills, communication skills, proposal writing, knowledge/skills of research and evaluation
Table 2. Summary of the course content	

3.4 Selecting and developing materials and activities

A number of activities, either in-class or out-of-class, are selected and developed to get students prepared for the service and to share their experience with the instructors,

agency supervisors and fellow students. Table 3 provides a summary of the teaching and learning activities.

Activity	Frequency	Description
Lectures	Weekly	Knowledge and theory of S-L, reflection, social needs and issues, evaluation, etc, are introduced and discussed.
Agency visit	Once per agency	It aims to get students familiar with the service agency and the service target, and clear about their role and responsibilities.
In-class presentation	Twice a course (beginning and end of term)	(Beginning of term) Students present the project ideas and proposal to the instructors and agency supervisors, and to receive feedback on how to run/ revise the project. (End of term) Students share the service experience and the learning outcomes with fellow students, instructors, and agency supervisors
Service practicum	A minimum of 25 hours in total	Students plan and arrange with the service with service targets/agency. Students provide direct or indirect service to the service targets/agency.
Reflective/ consultation meetings	At least twice a course	Students report the progress of the service and share their learning and difficulties. Students are asked to reflect on their service experience and to connect the experience with classroom knowledge.

Table 3. Teaching and Learning Activities

As revealed from the teaching and learning activities above, the roles of instructors and students are very different from lecturing model. The instructors, the agency supervisors, the students themselves and even the service targets may help students to enrich their understanding of the social needs/concerns in order to cultivate their social commitment and sensitivity. Students play a more active role in their own learning and that of their peers. Learning not only takes place in the classroom but also out-of-class in the agency site and community.

3.5 Organization of content and activities

A cyclical approach is used for the organization of the course. In the macro level, the whole course follows the experiential learning cycle. In the micro level of a unit or a part of the content, students will learn and revisit certain content in various ways: in the lecture, in the service practicum, in reflection activities. Course materials and activities are arranged in a way that the related knowledge and skills will be covered in lectures before they are applied to the S-L projects. Table 4 provides an overview of the content covered in lectures and S-L related activities in chronological order.

Week	Content of Lectures	S-L Activity
1 – 2	Fundamentals and theories of S-L; Reflection	Agency visit; reflective meetings;
3 – 4	Skills to assess community needs and proposal writing	Presentation of project idea; proposal writing
5 – 8	Theories about social issues and community needs	Service practicum; consultation meetings
9 – 11	Event organization skills, communication skills	
12 – 13	Theories about project evaluation	Presentation of project outcomes and results

Table 4. Organization of content and activities

3.6 Evaluation

Both formative and summative assessments are used to assess students' learning. Weekly reflective journals, project proposals, reflective meetings and consultation

meetings with course instructors are included as formative assessment. These enable the instructors to know the learning progress of the students, especially the difficulties students encountered. Adjustments on the teaching pace and content can be made. At the end of the course, students are required to give a final presentation and submit a reflective essay on the S-L projects and their learning. In particular, students are asked to specify how theories taught in lecture are applied in the S-L projects, and how S-L projects impacted their learning. Besides the instructors, students and agency supervisors involve in the assessment process as well. Students evaluate each other's performance via peer evaluation. The agency partners also take part in the assessment – they assess the students' performance in the service with respect to seven domains of learning (subject-related knowledge, communication skills, organizational skills, social competence, problem-solving skills, research skills, and civic orientation).

To evaluate the effectiveness of the course, pre- and post-tests and focus group interviews are adopted. The pre- and post-tests provide an overall picture of the changes in the seven domains of learning in the students. The focus group interviews enable the researcher a more in-depth understanding of the service experience, the learning process involved, and the difficulties encountered.

3.7 Consideration of resources and constraints

The OSL has collected and produced various useful materials and information about S-L pedagogy (e.g. student handbook, faculty handbook and agency handbook) and has established an extensive network with the community. These are useful resources for the course. For instance, the handbooks clarify the roles and responsibilities of different stakeholders. The established network with the community enables instructors to find community partners for different S-L projects easily.

A major consideration was time. Sufficient time should be given for learning the content knowledge and for doing the services. This is always a conflict between coverage of content and mastery of content (Gallman, 2000). Given the limited time in a semester, it was impossible to cover the content in depth and at the same time, to allow sufficient time for students to conduct meaningful and substantial services.

4. IMPLEMENTATION OF THE COURSE – STUDENT SERVICE-LEARNING PROJECTS

The proposal of the independent S-L course was submitted and approved by the Service-Learning Programme Committee and Academic Quality Assurance Committee of Lingnan University as a free elective course for undergraduate students. In the first few years (2008-2012), the course was offered in the summer semester only. Due to increasing demands from students, it began to offer in three semesters (Fall, Spring and Summer Semesters) since the academic year of 2012-13. In total, about 100 local and international students from different departments completed the courses. The students had conducted diverse S-L projects that addressed issues and needs in the Lingnan campus and the community. Regarding the campus-based S-L projects, students had investigated issues, such as classroom energy saving, food waste in canteen, and hostel cleaners. They shared their findings to arouse staff's and students' awareness of these issues. As for the community-based S-L projects, students worked with agency partners to design activities/ programs with respect to particular needs of the agency and/or the community. For example, for a community center near the University, students had organized programs to South Asian children to foster better integration with the local children and to the community. For the same center, students interviewed the elderly and wrote life stories about them which helped to promote a positive image of elderly. Students took complete ownership of the service-learning projects, from generating project ideas to implementing the services. They were able to connect and apply classroom learning to the S-

L projects. For instance, project evaluation, social and intercultural competence, reflection, learning process of experiential learning and service-learning, etc. The instructors and the agency supervisors acted as the facilitators to provide feedback and monitor the progress of the projects and students' learning. In brief, students went through different stages of the experiential learning cycle and experienced vigorous study in S-L through active engagement in community.

5. STUDENTS' LEARNING FROM THE COURSE

In theory, the course was effective in bringing about students' learning as stated in the course goals and objectives. To what extent is this assumption correct? A case study was conducted to investigate the effectiveness of the course in bringing about students' learning. Data was collected from the assessment and evaluation of students who enrolled in the course in the three semesters of the academic year of 2013-2014. Both qualitative and quantitative data was used in the analysis which enabled triangulation of results and findings.

5.1 Data from the pre- and post-tests

In the pre- and post-tests, students were asked to rate the level of competence, in a 10-point Likert scale from 1-Not competent to 10-very competent, for items related to the seven domains. In 2013-14, 40 students enrolled in the independent S-L course offered in three semesters (Fall, Spring and Summer). 614 students enrolled in 28 departmental S-L courses offered by eight different departments/units in Fall and Spring Semesters. In total, 37 students from the independent S-L course and 596 students from the departmental S-L courses completed both pre- and post-tests and included in the analysis. The table below displays the summary statistics of the independent S-L course and the departmental S-L courses in the academic year of 2013-14.

		Independent S-L courses (N=37)			Departmental S-L courses (N=596)		
		Pre-test	Post-test	Difference	Pre-test	Post-test	Difference
Subject-related knowledge	Mean	6.71	7.76	1.05	6.67	7.66	0.99
	SD	1.59	1.01	-0.58	1.52	1.18	-0.33
Communication skills	Mean	6.40	7.16	0.76	6.48	6.91	0.43
	SD	1.45	1.37	-0.08	1.38	1.37	-0.01
Organizational skills	Mean	7.23	7.76	0.53	7.02	7.45	0.43
	SD	1.41	1.06	-0.35	1.29	1.18	-0.11
Social competence	Mean	7.48	8.22	0.74	7.07	7.69	0.61
	SD	1.01	.95	-0.06	1.29	1.15	-0.13
Problem-solving skills	Mean	7.44	8.01	0.56	7.01	7.54	0.53
	SD	1.11	.90	-0.21	1.26	1.15	-0.11
Research skills	Mean	6.37	7.50	1.14	6.57	7.23	0.66
	SD	2.08	1.34	-0.74	1.46	1.43	-0.04
Civic orientation	Mean	7.92	8.37	0.45	7.30	7.80	0.50
	SD	.95	.83	-0.12	1.26	1.12	-0.15

Table 5. Summary Statistics of the Pre- & Post-tests

Data seems to suggest that students in the independent S-L course experienced relatively greater increase in subject-related knowledge, communication skills, social competence, and research skills. Surprisingly, students in the independent S-L courses showed smaller increase in civic orientation than those in departmental S-L courses. It seems to suggest that the course is less effective in bringing about social and community engagement in students. Arguably, students enrolled in the independent S-L courses

started with a higher level of civic orientation than those in the departmental courses. A possible explanation is that the independent S-L courses were highly related to community services. This, in turn, attracted students who were already with strong civic commitment and interest in social issues to take the courses. The room for further increase in these students was not as great as those in the departmental courses. Indeed students in the independent S-L courses showed higher mean ratings of civic orientation in both the pre- and post-tests.

5.2 Data from the reflective essays

Data from the students' reflective essays suggest that students' civic orientation in terms of community engagement did enhance. Student K and her group conducted a program to South Asia Children and local children in a youth center near the university. Students intended to increase tolerance among local and South Asian children and promote better integration between these two groups of children. After the program, she wrote,

"The university locates at a diversified community.... People with different gender, race, age, religion and cultural background live here. However, as a university student [studying here], I feel separated from the local community. Before the course, I was not aware of the situation....

[After completing the course] I found that I can get more involved into the community after the service. Sometimes I feel I have enough knowledge about the place I live, but it is never enough. Not only do I need to change my mindset, being more tolerant and open-minded about others with different backgrounds, but also do I pass the message to the people around me....the service is just the beginning... I need to start practice what I learn in the course, so as to build a continuity of the change." (Student K)

Apparently, the service experience increased the student's understanding of the community near her university. It also cultivated in her a greater sense of commitment to continuously engage more in the community – she would pass the message of being more tolerant and open-minded to people who were with different backgrounds and cultures.

The second excerpt below is from a student whose S-L project was to run an educational program to arouse local children's awareness of environmental protection. Student L was an introvert and nervous to speak in front of a group of people. Yet, each group member needed to take care of 5 – 7 local children who were energetic, talkative and outgoing. Because of the responsibility, student L took initiative to talk with the children and broke through her weaknesses. In her reflective essay, she shared that,

"This (the S-L project) is a wonderful experience. I hope I can join other service-learning courses and use back what I had learned from this course. These kinds of service courses are much interesting and teach us many things that we cannot learn from books. Being a university student, it is not enough to gain knowledge in the lesson. We need to serve the community back and service learning is definitely a good way for us to have the personal growth." (Student L)

To Student L, the enhanced communication skills and breakthrough of her shortcoming could not be learned from books easily. More importantly, she was motivated to apply this learning from the independent S-L course to other S-L programs in the future. Thus, it appears that the independent S-L course has succeeded in helping at least this student, if not all, to equip the knowledge, skills and/or attitudes for future S-L programs and civic engagement.

6. MERITS AND CHALLENGES

The section will discuss the merits and the challenges during the implementation of the independent S-L course.

6.1 Merits

The assessment data from students suggested that the independent S-L course helped to bring about the intended learning outcomes in students. What are the features of the course that help to facilitate students' learning? Firstly, it is the new mode of learning afforded by service-learning pedagogy as revealed by the student below.

"I could learn better from SLP course than traditional learning mode as I was involved in the project. I could apply the theories to the service in order to make those theories more memorable." (Student W)

The more unique feature of the independent S-L course is the autonomy given to students in generating their own S-L project as re-cap below.

"I liked this course since I could take part in organizing our project not only the activities but also our service targets. Though there were some challenges, we were able to focus on the social issues that we thought it should be prioritized in our society ... On the other hand, I could find the linkage between solitary elders and successful aging." (Student C)

In the course, students enjoyed greater autonomy in choosing and designing the type of service and the service targets rather than selecting from a prescribed list in the departmental S-L courses. This enabled students to produce projects which are more meaningful to them, and to enhance their sense of project ownership. Students were able to explore their learning in a more diverse way as suggested by a student, "there are no [fixed] formula to know what you will learn." (Student T)

6.2 Challenges

The independent S-L course poses great challenges to the instructors. It is very different from departmental S-L courses because the pedagogy used for subject knowledge learning becomes the subject knowledge. In other words, the means becomes an end. Indeed the instructors had struggled on the intended learning outcomes of the courses. Quite a large proportion of the course content, especially theories and skills for service-learning, is not fixed as the students' projects vary from student to student, and year to year. In other words, the learning content and objectives were jointly constructed by the instructors and the students. The instructors need to be flexible enough to select the materials relevant to students' projects. The course materials used in a semester may not be appropriate for the next semester. This implies that more time and effort are required to prepare the course materials and teaching content than courses with fixed content.

7. THE WAY FORWARD

Despite the abovementioned challenges, the enhanced students' learning and social commitment motivate the instructors and the OSL to continue the effort to create more S-L opportunities for students. It is believed that the independent S-L course is a timely response to the call of university social responsibility (Tandon, 2014). The flexible course content enables students and instructors to promptly respond to the immediate needs of community. This is hardly afforded by courses with fixed content and curriculum. Credit-bearing S-L courses are commonly found in universities in countries, like US and Taiwan, where the development of S-L is more mature than Hong Kong. S-L started as extra-curricular activities in Hong Kong. Most of them were non-credit bearing. Recently

more local universities starts to offer credit-bearing S-L courses by academic departments or jointly by academic departments and student affairs offices and/or S-L offices to enhance the learning of other subject knowledge.

This independent S-L course illustrates that S-L is not only pedagogy (a means) that facilitate students' learning of subject knowledge. S-L itself can become the subject knowledge, i.e. an end in itself, that students deserve the time and effort in pursuing knowledge and skills of S-L. The independent credit-bearing S-L course shows the potential of S-L evolving into an academic subject/ discipline independent from other academic departments. The authors envisaged that the independent S-L course is a beginning of a more established S-L curriculum. An intermediate and/or advance course of service-learning could be developed to continuously engage students in active learning about S-L theories and skills and generating S-L with personal meaning and social impacts. The success of an independent S-L curriculum requires academia a new perspective on S-L - S-L as an academic subject in addition to S-L as pedagogy.

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Credit Bearing Service-Learning: Linked Architectural Studio Experience

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ABSTRACT

Current trends in architectural studio design education reflect two distinct pedagogical approaches. Leading methodology focuses on encouraging students to create individual form-driven theoretical designs; while a contrasting pedagogy educates student through a collaborative, interdisciplinary, research-based design process that has roots in service-learning, public interest design studios. At Keene State College, a public liberal arts teaching institute in New Hampshire, academic (credit-bearing) service-learning has been historically embraced as a successful learning strategy for all students, and a valid professional activity for faculty scholarship. Within the architecture design studio curriculum, academic service-learning is evolving from an educational pedagogy used by individual faculty to an intentional model integrated throughout the core architectural design courses in the Bachelor of Science Architecture major. This article analyzes the key components of academic service-learning utilized in a three-course design studio sequence working with the same community organization over a period of two years. The resulting mutual benefits to the students, community partner, and faculty are considered a catalyst for transforming the learning objectives and methodologies applied in the core architectural design studio sequence.

Key Words: academic service-learning, architectural design studio, collaborative design studio, linked service-learning studio

1. INTRODUCTION

The last decades of the 20th century and the beginning of the 21st century mark an era of unprecedented urban and architectural developments fueled by significant public spending on civic projects and excessive private commercial real estate speculation in both developed and developing economies [Tabb 2012]. These trends have contributed to the rise of a new class of designers, “starchitects”¹, including Zaha Hadid, Frank Gehry, and Daniel Libeskind, who currently hold social status rivaling modern fashion dictators [Fajardo 2010], and who treat the increasingly connected world as their personal “runway.” In some cases, the necessities of the client, function, and cost no longer jointly inform the resulting expression of the project, but rather the form becomes a powerful symbol used as an economic tool for infusing life into stagnant cities and even entire regions. This recent phenomenon has disrupted not only the professional design process but has also impacted design teaching methodology. Architectural education predominantly reflects this fascination with signature design by infusing studio courses with projects that encourage fashionable and abstract imagery. These design environments encourage the student’s individual, personal development of a concept or “parti” as the primary generator of form while de-emphasizing research-based design processes, which respond to human needs, social, environmental and economic considerations. Despite the sensationalized form-driven design processes’ promise of providing a force for revitalization, the “Bilbao Effect”² [Rybczynski 2002] is losing relevance in a world affected by climate change, dwindling

¹ “Starchitect” describes social status of a designer who has achieved a critical acclaim among general public.

² Bilbao Effect – a term that generalizes development of a building that contributes to economic growth of an entire region.

natural resources, and extremely overleveraged economies that struggle to balance the need for profit, sustainability, and social justice.

In response to these global pressures an integrated and socially responsible professional design process is re-emerging. Having roots in the populist, systems-driven approach taught at the University of Pennsylvania in the 1960's, architects Stephen Kieran and James Timberlake, opened an office in 1984 espousing a recharged design methodology where the building form results from:

“[a] process that engages in dialogue with clients, consultants, and fabricators, ...introduces research into the natural environment, energy, social and learning structures, materials, existing building fabric, the economics of construction, and the methods of collaboration...in hope to reshape our expectations of architecture.” [Kieran et al. 2004]

Their firm's collaborative, interdisciplinary, research-based design methodology complements the experientially based design education present in public interest design studios and Community Design Centers [Moore et al. 2006]³. Popular in varying degrees since the 1960's, these studio design models introduced students to the value of civic engagement by working with an actual client with a need for design services. A more inclusive and interdisciplinary approach to architectural professional practice and architectural education substantiates the adaptation of the architectural design studio into an academic service-learning laboratory.

2. INTEGRATION OF PBSL AT PROGRAM AND INSTITUTIONAL LEVELS

At Keene State College, academic (credit-bearing) service-learning within the architecture curriculum is evolving from an educational pedagogy used by individual faculty at will to an intentional model integrated throughout the core courses of the architecture major. This article analyzes the application of the principles of academic service-learning to a three-course design studio sequence working with a singular community client. The lessons learned from, the implementation of “pedagogy of engagement” [Schuman 2006]⁴ not just in a singular design studio nor in an ancillary community design center, offer a framework for integrating service-learning in the full sequence of design studio courses.

As a teaching institute, Keene State College (KSC) recognizes and supports service-learning as a beneficial credit-bearing learning tool for students, and as a valid activity for faculty scholarship. Service-learning is fundamental to the mission of KSC, a public liberal arts college located in southern New Hampshire. Keene's motto of “Enter to learn, go forth to serve” is framed in the campus gateway through which the students march at both convocation and graduation. Keene State College regards service-learning as primary to the institutional mission stating, “service-learning occurs as curricular, co-curricular, and engaged scholarship activities supporting and benefitting the students, faculty, and regional community”, and “Keene State encourages students and faculty to transform classroom theory into real world practice.”⁵ The architecture major at Keene State College is grounded in the liberal arts and designed to give students a solid interdisciplinary foundation in the artistic, scientific, and technical aspects of architecture to prepare our

³ Moore et al. (2006) p. 155-156.

⁴ Schuman (2006) p. 1-15.

⁵ See <http://admissions.keene.edu/academic-community/beyond-the-classroom>

majors to either directly pursue graduate study or seek employment in a range of areas including architecture, building science, and construction management, or related professions. Since on average only 1/3 the graduates of the architecture major directly pursue a graduate design degree, the educational goals of the program are not geared toward creating form-driven “starchitects.” This notion of preparing undergraduate architecture students in a liberal arts grounded environment rather than a discipline-focused structure is supported by the Carnegie Foundation’s Special Report on Building Community, which claims:

“The continuing vitality of the architecture field depends on the ability of the practitioners to communicate clearly and convincingly to architects and the lay public. In a rapidly changing world, students need to be able to look beyond the confines of a single discipline and view problems in their totality.” [Boyer et al. 1996]⁶

As a pre-professional non-accredited undergraduate program in architecture, the major is not bound to fulfilling mandated accreditation standards but is free to focus on teaching students to become effective, creative problem-solvers who embrace a collaborative, interdisciplinary approach to architecture and the related professions.

3. ARCHITECTURE PROGRAM STRUCTURE

Problem-Based Service-Learning (PBSL) as an effective pedagogical strategy, which directly addresses the educational needs and goals of our students, has a long history in the Keene Architecture Program. The sophomore level Collaborative Architecture course introduces the practice of defining the learning objectives of students not just as discipline-specific but also as social, professional, and personal. Additionally, the methodology of the course relies on the key service-learning components of working with a real client and real project, and the key PBSL learning principles of [Payne 2000]: “preparation, action, reflection, celebration, and evaluation.”⁷ Over several years, the course developed strong relationships with community clients providing mutually beneficial results for the students and community clients who include several local public and non-profit housing organizations.

Two focus areas have evolved within the curriculum, architectural design and building science, which prepare our graduates to address the global issues of sustainability and social justice within the built environment. Academic service-learning activities have been continually adopted within the two areas of the curriculum by individual full-time and long-standing adjunct faculty. Based on the Service-Learning Matrix [Berle 2006] developed for the Landscape Horticulture program at the University of Georgia⁸, Table 1 outlines where academic service-learning is being utilized in the architecture curriculum with the intention of assessing the breadth of the pedagogy within the full course offerings. Currently, 50% of the courses (10 out of the 20 courses) offered both required and elective, include an academic service-learning component ranging from 10-100% of the course assignments. Within the design studios there is a pattern, where the lower level and introductory studio courses do not employ service-learning, the mid and upper level studio

⁶ Boyer (1996) p. 77.

⁷ Payne (2000) p. 10-11.

⁸ Berle (2006) p.45 - matrix composition.

courses have increasingly employed service learning as the framework for 100% of the studio work.

Course No.	Course Title	Major Required	Service Learning	% of class time	Real World Project	Real World Client	Mock Client	Client Engagement	Collaborative	Independent	Hampshire Country School Participation	Design Studio/Semester
IAART 103	2D/3D Design	y	n		n	n		n	20%	80%		
ARCH 120	Architectural CAD I	n	n		n	n		n		100%		
ARCH 180	Introduction to Architectural Design	y	n		n	n	y	n				1/2
ARCH 220	Architectural CAD II	n	n		n	n	n	n				
ARCH 275	Residential Construction	n	n		n	n	n	n				
ARCH 230	Architectural Design I	y	o	100%	y	y		y	25%	75%		3
ARCH 260	Sustainable Design and Building Science	y	y	25%	y	y		o	10%	90%		
ARCH 350	Architectural History I	y	n		n	n	n	n				
ARCH 270	Commercial Construction	y	n	15%	n	n	n	n	10%			
ARCH 280	Collaborative Architectural Project	y	y	100%	y	y		y	100%		SP 2012	4
ARCH 355	Architectural History II	y	n		n	n	n	n	10%			
ARCH 235	Architectural Design II	n	n		n	n	y	n	15%			5
ARCH 370	Architectural Systems	y	y	25%	y	o	n	o	varies			
ARCH 330	Architectural Design III	n	o	100%	y	y	y	y	30-100%		FA 2012	6
ARCH 320	Architectural CAD III											
ARCH 430	Architectural Design IV	n	o	100%	y	y		y	20%			7
ARCH 375	Statics and Structural Analysis	n	n		n	n	n	n				
ARCH 435	Portfolio Design	n	n		n	n	n	n				
ARCH 360	Solar Design and Building Science II	n	y	25%	o	o	o	o	varies			
ARCH 480	Senior Capstone	y	o	100%	y	y		y	varies		SP 2012	8

y - yes | n - no | o - optional

Table 1. Use of Service-Learning as an Integrated Pedagogical Tool in Architecture Program Curriculum

4. LINKED DESIGN STUDIOS AS AN ACADEMIC SERVICE LEARNING MODEL

In the past three years, the three studio design courses: ARCH 280 Collaborative Architecture Project, ARCH 330 Architectural Design III, and ARCH480 Senior Capstone, provided the opportunity to integrate the pedagogy of academic service-learning in a sequence of courses of varying levels, sophomore, junior, and senior, using a singular client. The scholarly research on linking courses through service-learning suggests that, “a sequence of service-learning courses might maximize the potential civic and academic outcomes of service-learning [sic] for students” and build “upon their prior experiences and better integrate their volunteer activities with course concepts and issues”.⁹ The three design studio courses (highlighted in Table 1) were linked through the continuity of a client at Hampshire Country School (HCS) in Rindge, NH. This rural boarding school admits boys 8-16 years of age with great intellectual potential whose high energy, and/or other

⁹ Berle (2006) p.43

idiosyncratic characteristics have led to isolation or difficulties in larger traditional schools. The campus is located on 1700 acres, which include a main campus of buildings and facilities, two ponds, a working farm, several miles of historic stonewall, and a 1400 acre nature preserve. Campus buildings include: Main House, with classrooms, offices, library, and dining room; Coach House, with more classrooms; student dorms; faculty housing; a theater; a recreation barn; and an animal barn.¹⁰

In early 2012 a KSC administrator who sits on the Board of Trustees at HCS, approached the KSC architecture faculty members with a proposal to engage the design students in a real project. The clients needed help with master planning, new construction, and renovations but due to limited funding were unable to employ professional design services. Overwhelmed by the condition of the facilities and size of the property, the Board of Trustees and Headmaster wanted to engage in a visioning process. The Keene State College architecture faculty and students were prepared to assist (through the studios) with design services to frame the issues, scope, schedule, and cost of the building projects. This project allowed the design faculty to engage a community client who was willing to commit his own time as Headmaster, and include his faculty and facilities' staff in collaboration with the students and faculty over a two-year period. The two architecture faculty members involved had previous experience co-teaching a number of design courses and seized the opportunity to intentionally redefine the curriculum to include the components of service-learning as defined by David Payne: "Preparation, Action, Reflection, Celebration, and Evaluation."

4.1 Preparation

The faculty members begin by redefining the learning objectives for the three courses breaking them into four broad categories:

- General academic – creative thinking, critical thinking, research methodologies;
- Discipline specific – architectural knowledge and skills;
- Professional – communication: visual, graphic, and oral, project management;
- Service – leadership, self-reflection, inclusiveness, and collaboration.

The learning outcomes for the unique course levels would be assessed through the grading rubrics for each course, based on three levels of assessment, with the sophomore class assuming an Introductory/Reinforced level, the junior studio a Reinforced/ Mastery level and the senior studio evaluated mostly at the Mastery level. Additionally, the effectiveness of the PBSL strategies would be measured at the end of each major task and at the end of the semester on: the quality of design solutions, the success of the team collaboration, the self-reflection activities, the client-team interactions, and the mid and final oral/graphic presentations. During the preparation stage (prior to the beginning of the semester), the faculty analyzed various HCS projects, and after initial site visits and several discussions with the clients, the instructors decided to experiment with allowing both the sophomore and senior courses to work on the same projects, the Master Plan, the Main House Renovation, the multi-purpose theater building and the dormitory, rather than divide the projects by course level. Additionally, students from Collaborative Architecture Project course were offered an opportunity to take the Design III course in the following fall semester to continue working with the same client to advance their projects. Some of the students chose the Design III course the following fall.

¹⁰ See <http://hampshirecountryschool.org>

4.1.1. Team Selection Process

When the semester began, the preparation phase involved selecting teams first, and then having the members of the group select the projects. Two distinct methods were used for this process in the different course levels. After several years of experimenting with students selecting the teams by themselves, the faculty decided that the formation of the sophomore teams should depend on assembling groups with a range of required skills. Students were surveyed ranking their design capabilities, writing skills, leadership, management abilities, and specific hand and computer drafting proficiencies. Three-person teams were formed to balance the skills and knowledge of the participants in a comprehensive and equitable manner. In the Senior Capstone course students were allowed to form their own two-person teams regardless of the level of their design, research, and representation skills, but with the understanding that the team composition warrants an interdisciplinary set of skills and interests to collaborate on solving complex design problems. The faculty noted at the end of the semester that neither approach precluded the occurrence of problems arising in the functionality or fluidity of team dynamics, but in most instances produced highly effective and efficient work environments.

4.1.2. Project Selection Process

Despite having two distinct methods of team selection, the faculty acknowledged the importance of creating ownership around project selection. After the clients presented a brief overview of the range of projects, in both courses, the students selected a project they were personally interested in. In the sophomore class based on the skills survey, students had indicated their preferred project, and the faculty composed the teams by skill and by project interest. Typically most students received their first or second choice. Some senior students were particularly drawn to the possibility of selecting a New Dormitory/Teacher Residences project because of their sophomore year residential experiences in a Living/Learning Community on campus. Another team of sophomores chose the Master Plan because of their knowledge of planning learned through the general education management courses afforded by KSC's general education requirements.

4.2 Action

Once the projects and teams were chosen, instructors utilized multiple active learning strategies throughout the semester in both the sophomore and senior courses, and again during the following year in the junior level studio. Student team/client interactions occurred on regular basis and were facilitated by a faculty member. These meetings took place both on site and in the architectural studio with varying client representatives. The semester was broken into design phases, which mirrored the tasks of a professional design firm. (See Table 2) The student activities/tasks were designed to address the four broad categories of learning objectives and were balanced on a bi-weekly basis with faculty feedback and client input. In the first half of the semester, students worked directly with the clients to set the goals, frame the issues, and present a variety of concept alternatives.

4.3 Reflection

The reflection activities were built-in individually and in teams throughout the semester and support all categories of learning objectives. For example, to address the professional skill-building capacities of project management and time accountability, each team kept a binder with weekly time sheets outlining an individual's time and task, reflective comments, and their progress to date. Since the educational goals of the studios were not

geared toward creating form-driven “starchitects”, but rather collaborative, research-driven options, the teams engaged in constant peer to peer, client to team, faculty member to team, informal and formal presentations. When a team presented to the client, one of the team members recorded opinions expressed by the client, which often varied and depended on who was present at the moment from the broad range of client representatives. Absorbing and processing feedback, from both the team members and the client, continues to be one of the most challenging aspects of an inclusive design process. Recognizing the importance of not just the designer, but also the project manager and project architect roles, validates the uniqueness of students’ skills. The final output of the semester involves a comprehensive oral and written report, and graphic presentation for each project team. The work of all the student teams is assembled and becomes an artifact for both the client and the student’s individual project portfolio. An exit interview is conducted with the teams and includes not only a verbal conversation with the faculty member but also a written assessment of individual team member’s contribution to the group.

Student Activities/Tasks	Product	Learning Gains												Reciprocity			
		General		Discipline		Professional			Service					Student	Client	Faculty*	
		Creative Thinking	Critical Thinking	Research Methodologies	Architectural Knowledge	Architectural Skills	Visual	Graphics	Oral	Project Management	Leadership	Self-reflection	Inclusiveness				Collaboration
Goal Setting	Vision/Objective Statements	y	y		y				y		y	y	y	y	y	y	y
Client(s) Interviews	Meeting Minutes/ Report				y				y	y	y			y	y	y	y
Programming	Diagrams and Tables	y	y	y	y	y	y	y						y	y	y	y
Communication	Project Reviews/Presentations		y				y	y	y		y		y	y	y	y	y
Data Collection/Research	Analysis and Synthesis of Data		y	y	y	y	y	y		y				y	y		
Concept Design	Design Options/Sketches	y	y		y	y	y	y				y		y	y	y	
Schematic Design	Set of Architectural Drawings	y	y		y	y	y	y				y		y	y	y	
Fundraising Materials	Presentation Boards/Handouts				y	y	y	y						y		y	y
Project Documentation	Time Sheets/Filing/Binders		y						y		y	y	y		y	y	

* Faculty also benefited from applying their professional skills in curriculum development and pedagogy of engagement.

Table 2. Typical Building Project Matrix

4.4 Celebration

The sophomore studio involves a community luncheon and formal presentations to the city and college administrators, the client, and community members. The senior project was presented to both the clients and architectural professionals. Additionally, both projects received special media coverage and were reported in campus and local newspapers.

4.5 Evaluation

David Payne suggests that the evaluation methods should be both, “formative and summative, and involve all parties in the process.”¹¹ While standard summative evaluations measures were employed including grading rubrics applied to each team’s project, formative measures such as time sheets were used to assist in an individual team

¹¹ Payne, (2000) p. 17-18.

member's accountability. However since this was the first attempt to link a series of courses with the same learning outcomes, the instructors' observations provide insight into the successes and weaknesses of the process. The instructors' observations, student and client comments are included below as qualitative self-reporting evaluation measures.

Faculty observations

Both levels of studios were scheduled to meet with the HCS clients on a bi-weekly basis. However the sophomores engaged the client informally much more frequently than the seniors who scheduled their more formal review times during the 6th and 10th week of the semester. The frequency of interaction between the students and clients led to several distinctions in the outcomes of the courses.

As expected, the sophomores struggled at first with finding relevant base maps, building code information, and climate data having only been exposed to research techniques in the previous foundation architectural design studio. The fulfillment of analysis outcomes did not go beyond the Introductory level and only certain Professional skills reached the Reinforced level. At the same time, the sophomores engaged the owner in their research process from the beginning because their inexperience required more guidance. Through that interaction, the Headmaster became more invested in the process of investigating the existing conditions, organized several impromptu discussions with a greater range of stakeholders, and the client group began questioning their own assumptions presented to both groups of students at the beginning of the semester.

For example, the existing multipurpose theater building was originally slated for renovation regardless of the outcomes of the master planning process. Since the sophomore teams, engaged in the master plan and theater renovation, collaborated on gathering background documents, both the student teams and client had a chance to "brainstorm" the idea of relocating the theater to a new site. The students proposed building a new theater and combining it with temporary classroom spaces that would allow the temporary relocation of the classrooms while another project (the Main House) was renovated. This innovative sequencing approach was a result of informal discussions with building and grounds personnel, and additional site visits, which the senior students thought they did not need.

For the seniors, the data collection, goals and objectives setting, and research of existing conditions occurred within the first three weeks and the next three weeks were used to generate multiple design strategies to be presented to the client. Since seniors were focused on the research and comprehensiveness of their designs, they did not engage in any informal dialogues with the clients until the presentation scheduled for the 6th week of the semester. This approach turned out to be very productive in meeting research, analysis, and certain professional skills outcomes, but prevented the students from fully embracing the service-learning objectives of inclusiveness and experimentation in their initial design strategies. From the client perspective, the meetings with sophomore students led to innovative project approaches for solving open-ended planning and building problems. Whereas the delayed meetings with seniors resulted in more pre-determined, conservative, yet comprehensive design solutions. Both approaches allowed the client to benefit at the end of the semester but in considerably different ways.

4.6 Reciprocity

While evaluation of the linked studios in the Hampshire Country school project was largely summative and observational, the mutual benefits of the project are clearly apparent. Barbara Jacoby, an early leader in service-learning defined “reciprocity” for the client, the students, and the faculty, as one of the key components of service-learning. Additionally, in AAHE’s series on Service Learning in Planning and Architecture [Rios 2006], author described the beneficial goals for the students in the following way:

“Community engagement gives students feedback for making design choices that are responsive to the physical and social contexts of a given project. Community engagement also provides a space for experimentation leading to promising practices that emphasize mutual engagement between universities and communities.”¹²

When asked what did she learned about herself through the experience of working with a real client in a group environment, a sophomore replied: “...how fulfilling a project can be when you are able to see the emotion of the client rather than having a mock event...” and how “...working in a team with the clients helped the outcome of the project become more diverse.” The comments from the final reflection activity offered insight into the students’ perspective on collaborating with their peers on a design project rather than producing an individual design. Comments include: “Having different perspectives on the project opened my eyes to everyone needs, not just my own ideas during the design process,” and “Organization, planning and diligent work can be an alternative to 25 hour work days. We learned how to apply our different skills, and delegate work to other team members.” Regarding their engagement with a real client and the impact of their design solutions, students commented that, “Working with multiple client representatives turned out to be exciting but also challenging”, “We embraced the simplicity that was required for the project but tried to think out of the box and deliver an exciting space,” and, “incorporating client feedback in to the design process, you never know what kind of project comes next, but embrace it, learn as much as you can and have fun with it!”

For the clients, an unexpected benefit resulted from the research and collaboration with the sophomores during the initial phases of the design process. “Out of the box” planning ideas were presented by the sophomores on the master planning and multipurpose theater project, and as the Headmaster claimed, “the innovative proposals of phasing of building construction and renovations informed the School Board and the administration about possible adjustments to the overall campus building portfolio, which constituted a major change in the approach towards a more sustainable and student-centered vision of the institution.” Additionally, the seniors’ comprehensive design solutions and visual materials allowed the client to begin a fundraising campaign, which raised over \$700,000 in contributions from various donors. The professionalism and responsiveness of the seniors’ designs resonated well with donors who could begin to visualize the proposed projects. These initial and subsequent donations led to the immediate construction of a multipurpose theater building and the recent awarding of a contract for professional design services to renovate the Main House building.

For the faculty, the HCS project provided the opportunity to create a loop between teaching, service, and scholarship. Keene State College recognizes Ernest Boyer’s definition of a

¹² Rios, (2006) p.53.

“scholarship of engagement”¹³ as a legitimate tool in a faculty member’s promotion and tenure file. In the HCS project, the faculty engaged in development of the academic service learning pedagogy, used teaching and professional skills in acting as a coach/silent design partner overseeing the student teams, and served as facilitator between the team and the client. Additionally, the faculty provided on-going pro bono consultation services to the client over several years. Such services included selecting and presenting the student options to the Board of Trustees, working with a Board of Trustee member on writing an RFP¹⁴ for the Main House project, and helping select firms for the project. Upon recommendation of the faculty members, a student who worked on the project, both in sophomore and junior years, was hired after graduation by the professional firm that was contracted to renovate the Main Classroom building. This outcome expanded the loop between the client, students, and faculty, to include the professional architectural firm.

5. CONCLUSION

The Hampshire Country School projects presented an opportunity to integrate student learning with community service. Over a two-year period, architectural undergraduate students and faculty were connected to a community partner that serves children with learning and behavioral challenges. The three-way partnership between students, client, and faculty provided mutual benefits allowing the students to connect knowledge to service for an underserved population close in age to them. By working through an academic rather than professional structure, the students and faculty provided the client with an affordable, unrestricted process for creating a vision, fundraising tools, and short/long term strategies to improve the built environment of the campus. The relationship with the Hampshire Country School illustrates opportunities to expand the applied service-learning pedagogy to the full core studio curriculum in support of the architecture program’s mission of educating informed and engaged architectural graduates.

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¹³ Boyer, Mitgang (1996) Special Report on Building Community: A New Future for Architecture Education and Practice.

¹⁴ RFP – Request for Proposal is a process of employing architectural services for project development.

Subjective outcome evaluation of a Service Learning subject in a Chinese context

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ABSTRACT

The present study reports the evaluation findings based on 37 students from The Hong Kong Polytechnic University who enrolled in a service learning subject entitled 'Promotion of Children and Adolescent Development' in the 2012/13 academic year. The Student Feedback Questionnaire (SFQ) was used to gauge the views of students on the subject and the teaching performance of the staff. Both qualitative and quantitative results showed that students generally had positive perceptions of the subject and teachers, with many participants regarding the subject as helpful to them as a future professional, a citizen in the Hong Kong society and for their personal growth. Overall, the study confirms the effectiveness of the service learning subject in Hong Kong.

Key Words: Service learning subject, student feedback, citizenship, personal growth, Chinese context

1. INTRODUCTION

Traditionally, the purpose of the higher education is to advance university students' professional competence and assist them to search career with prospects. This traditional emphasis on "professional nurturance" has invited debate regarding the mission of a university. Some colleagues argued that it is important for universities to educate students to be responsible citizens rather than solely for their careers (Bringle & Hatcher, 1996; Chupp & Joseph, 2012; Ngai, 2006). Rodin (2007), the former President of the University of Pennsylvania, asserted the importance of university-community relationship and proposed to reorient the social responsibility of a university that "the university can plan a lead[ing] role in urban transformation by changing its perspectives and making a commitment to alter its ways of interacting and transacting" (p.118).

With valuable resources and the traditional mission of addressing the needs of the community, universities are particularly well-suited for the development of service learning (Bringle & Hatcher, 1996). By emphasizing the importance of serving the community, service learning can enrich students' learning and re-connect their academic learning to the needs of the real world. Service learning is thus seen as an important mechanism in the universities to bridge the gap between universities and the community. And service learning has become an increasingly popular pedagogy, with the focus of "experiential learning", to educate university students about life. Professional schools of the universities have also provided experiential learning experiences, such as internships and clinical or pre-service practices. Some scholars, however, question the learning objectives of these opportunities that these experiences may not explicitly

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convey the importance of university students' civic responsibility and service to the community (Bringle & Hatcher, 1996). Service learning could help convey such messages by putting the students in a more engaged and active roles beyond the classroom settings. In addition, the vast body of scientific literature in the Western and Asian contexts generally show that service learning in the higher education has benefitted the students in various ways such as cultivating students' civic responsibility, helping students become more compassionate and empathic, have greater understanding in solving social problems, have greater efficacy to make the world better, and promoting students' cognitive, attitudinal, moral, social and personal development (Chupp & Joseph, 2010; Eyler & Giles, 1999; Furco, 1996; Mitchell, 2008; Ngai, 2006).

Given that the service learning has become a very popular pedagogical approach in higher educational settings and has been a practice for more than two decades, little attention has been paid to investigating the effectiveness of service learning subjects in local and western culture (Chupp & Joseph, 2010; Ngai, 2006; Warren, 2012). Some evidence shows that service learning has modest positive effects on students' psychological, social and cognitive development (Batchelder & Root, 1994). However, an important question left unanswered is whether the pedagogy used in service learning increases students' learning outcomes. Warren (2012) attempted to answer this question by conducting a meta-analysis of 14 studies in the United States. The analysis suggested that service learning has positive influence on student learning outcomes. As the studies under review were conducted in Western contexts, it would be interesting to examine if similar findings were obtained in the Chinese context.

As a long-established and widely-known university focusing on applied knowledge, The Hong Kong Polytechnic University (PolyU) has created numerous experiential learning opportunities for the students, including world-wide internships, exchange programs, field experiences and practicum to advance their professional knowledge and skills. Under the new 4-year undergraduate curriculum commencing in 2012/13 school year, students are required to complete at least one 3-credit subject on Service Learning to nurture the PolyU students' civic responsibility and the attitude "to learn to serve". This move not only offers the students opportunities for increasing their participation in community service and enhancing the awareness of applying their learnt professional knowledge to cater the needs of the community and society, but it also nurtures students' leading role of making commitment to the society or the country.

To contribute to the scientific literature on the effectiveness of service learning, a service learning subject entitled "Promotion of Children and Adolescent Development" in PolyU was examined in this study. The subject was one of the pilot Service Learning subjects offered in the academic year 2012-2013 from semesters two to three (summer semester). Before being accepted for the Subject, students were required to attend an interview. Out of more than 150 applicants, 40 students were selected and successfully registered for the subject. The subject attempted to introduce different psychosocial perspectives in understanding children and adolescent development as well as the needs and challenges of children and adolescents living in disadvantaged circumstances, to cultivate the positive values and strengths orientation among students, to nurture students' sense of social responsibility and social awareness and to promote prosocial behaviors. The subject was an offshore one and the service took place in East China.

The service recipients were migrant children in the East China area and a 5-day summer camp was held. Before the service-learning trip, three lectures and seven workshops (each lecture and workshop lasted for three hours) were organized during the above-mentioned period. During the workshops, practical skills in dealing with the children and adolescents were introduced and students would be in groups to devise feasible service proposals to best cater the needs of the service participants. After the

service-learning trip, students were required to do group presentations and write reflective journals to consolidate their insights of the service and the learning process.

Student feedback questionnaires are administered in many universities worldwide and constitute the most widely used form of teaching evaluation in higher education (Kember, Leung, & Kwan, 2002). It serves as a means for quality management in higher education and helps students reflect upon their learning (Rowley, 2003). As more and more educational institutions in higher education are providing service learning subjects, there is a need to evaluate and analyze the outcomes and impacts of these subjects on student learning and teachers' professional development (Driscoll, Holland, Gelmon, & Kerrigan, 1996). According to Honnet and Poulsen (1989), "because people are often changed by the service and learning experience, effective programs must build in opportunities for continuous feedback about the changing service needs and growing service skills of those involved. Ideally, participation in the service partnership affects personal development in areas such as intellect, ethics, cross-cultural understanding, empathy, leadership, and citizenship" (p. 10). As such, it is clear that there is a need to conduct systematic evaluation to assess students' feedback on their service learning experience. However, there is a "scarcity of replicable qualitative and quantitative research on the effects of service learning on student learning and development, the communities in which they serve, or on the educational institutions" (Giles, Honnet, & Migliore, 1991, p.2). Therefore, this paper aims to evaluate the impact of the subject "Promotion of Children and Adolescent Development" on student development.

2. METHODS

PARTICIPANTS AND PROCEDURES

In the 2012-2013 academic year, a total of 40 students from different disciplines enrolled for the subject. In order to gauge students' perceptions of learning experience in the subject and the achievement of the intended learning outcomes, all students enrolled in the subject were invited via electronic mail to complete a Student Feedback Questionnaire (SFQ) online upon completion of the subject. A total of 37 questionnaires were received. The response rate was 92.5%. The SFQ consisted of 10 items, assessing students' perceptions of their learning experience (5-items) and the achievement of learning outcomes (5-items). Respondents were invited to rate their level of agreement with each item on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

INSTRUMENTS

Upon completion of each subject, a Student Feedback Questionnaire (SFQ) was administered to collect the students' views and perceptions of the subject. Broadly speaking, there are two major parts of the SFQ, which are the students' perceptions of the subject and the students' perceptions of the teaching staff. Categories for each part are listed as follows:

(A) About the subject

- Students' learning experience in this subject (5 items)
- Feedback on the achievement of general learning objectives/outcomes (5 items)
- Extra questions added optionally by the subject, such as meeting the specific learning outcomes of the subject (5 items)
- Two open-ended questions, such as the most useful aspects in the students' learning and suggestions on the improvement of the subject.

(B) *About the staff*

- Teaching quality of the staff (7 items)
- Use of English as the medium of instruction (1 item)
- Extra questions added optionally by the subject, such as the teaching skills of the staff and the interactions between the staff and students (5 items)

Two open-ended questions, such as what were the most helpful aspects of the teaching staff and suggestions for improving the teaching.

3. RESULTS

Quantitative findings based on the closed-ended questions are presented in the present paper. Several observations are highlighted from the findings based on the descriptive statistical analyses using percentage data. Findings revealed that students' perceptions of the subject were highly positive. Overall speaking, in terms of learning experience, students reported that they had a clear understanding of what they were expected to learn from the subject (97.3%), and that the teaching and learning activities have helped them to achieve the learning outcomes (97.3%). With particular reference to the achievement of learning outcomes, students reported that they were able to link the service learning activities and experiences with the academic content of the subject (97.3%), and that they learned to apply the knowledge and skills acquired at the university to deal with the complex issues in the service setting (97.3%). Most importantly, this subject achieved the overarching goal of service learning as students reported that the subject enabled them to develop a strong sense of civic responsibility (100%), reflect on their roles and responsibilities both as a professional and a responsible citizen (97.3%), and develop a sense of empathy towards people in need (97.3%). Lastly, students reported that the subject had enriched their overall development (100%) and the subject had promoted their understanding of the needs of the service participants (100%).

Table 1 Summary of students' perceptions toward the subject (N = 37)

		3		4		5	
		No Strong Views		Agree		Strongly Agree	
		N	%	N	%	N	%
Learning experience							
1.	I have a clear understanding of what I am expected to learn from this subject.	1	2.7	24	64.9	12	32.4
2.	The teaching and learning activities (e.g. lectures, discussions, case studies, projects, etc.) have helped me to achieve the subject learning outcomes.	1	2.7	23	62.2	13	35.1
3.	The assessments require me to demonstrate my knowledge, skills and understanding of the subject.	1	2.7	23	62.2	13	35.1
4.	I understand the criteria according to which I will be graded.	3	8.1	23	62.2	11	29.7
Achievement of learning outcomes							
5.	I can link the service learning activities and experiences with the academic content of the subject.	1	2.7	25	67.6	11	29.7
6.	I have learned to apply the knowledge and skills I acquire at university to deal with complex	1	2.7	20	54.1	16	43.2

issues in the service setting.

7.	This subject has enabled me to reflect on my role and responsibilities both as a professional and as a responsible citizen.	1	2.7	19	51.4	17	45.9
8.	I have felt more empathy towards people in need as a result of studying this subject.	1	2.7	17	45.9	19	51.4
9.	I have developed a stronger sense of civic responsibility.	0	0.0	23	62.2	14	37.8
Achievement of Specific Learning Objectives							
10.	This subject has promoted my understanding of the needs of the service participants.	0	0.0	23	62.2	14	37.8
11.	This subject has promoted my competencies, including self-confidence, problem solving ability, decision-making capability, and interpersonal skills.	1	0.0	20	54.1	16	43.2
12.	The subject has promoted my compassion about those who are in need.	2	5.4	15	40.5	20	54.1
13.	This subject has enriched my overall development.	0	0.0	19	51.4	18	48.6

Note. All items are rated on a 5-point Likert scale with 1= strongly disagree, 2 = disagree, 3 = no strong views, 4 = agree, 5 = strongly agree. All respondents reported ratings of 3 or above.

In order to examine the relationship between the learning experience and the achievement of learning outcomes, correlation analyses were performed. Reliability analysis showed that the SFQ was internally consistent (Table 2): 4 items related to learning experience ($\alpha = .91$), 5 items related to achievement of learning outcomes ($\alpha = .90$) and 4 items related to achievement of desired learning objectives ($\alpha = .88$). Results of correlation analyses showed that the achievement of learning outcomes ($r = .82$, $p < .001$) and achievement of specific learning objectives ($r = .77$, $p < .001$) were strongly associated with learning experience (Table 2).

Table 2 Mean, SDs, Cronbach's α , and Correlation coefficients among the variables ($N = 37$)

Variables	Mean (SD)	1	2	3
1. Learning experience (4 items; $\alpha = .91$)	4.29 (.48)	-		
2. Achievement of Learning Outcomes (5 items; $\alpha = .90$)	4.39 (.45)	.82**	-	
3. Achievement of Specific Learning Objectives (4 items; $\alpha = .88$)	4.44 (.46)	.77**	.51*	-
Overall (13 items; $\alpha = .94$)	4.38 (.42)	.87**	.97**	.84**

Note. ** $p < .001$, * $p < .01$

In addition to quantitative feedback, students were also invited to provide qualitative comments on what aspects of the subject were most useful to their learning, and how the subject could be improved to help them learn better. For the "subject" part, the students reported that the knowledge and practical skills learnt during the course and the experience of providing a service were viewed as the "most useful". One comment stated explicitly that the team (the small group arranged during the class) is "one of the greatest harvest in this opportunity". About the improvements of the subject, students perceived that the workload (lectures, workshops and assessments) was a concern. Yet interestingly, some students suggested having more workshops before or during the

service for the relevant open-ended question. For the "staff" part, the main aspects in which the staff members were found helpful were providing timely feedback; using several different teaching methods (especially in communicating with children and adolescents) and the staff members' caring attitudes. About the improvement of the teaching staff, there are scarce comments in this open-ended question.

4. DISCUSSION

Although the present investigation is based on the data collected in a single Service Learning subject, the results have shed some light on the effectiveness of the service learning pedagogy and have helped generate some insights into the learning and teaching process of the service learning subject. This investigation provided a useful case study to illustrate how the SFQ can possibly help understand a newly developed pedagogical service learning subject in the local context.

The findings of the present investigation are highly positive which strongly suggest that service learning is an appropriate pedagogical approach in helping students reflect on their growth in the experience of service learning. The highly positive feedback also suggests that the subject was helpful to nurture students' civic responsibility and their overall development. The findings are consistent with the previous studies (Bringle & Hatcher, 1996; Mitchell, 2008; Warren, 2012) that the service learning was beneficial to students. The benefits of the teaching process, though not directly from the teachers, were also demonstrated by students' feedback on teachers' caring attitudes and professional teaching skills.

Eyler and Giles (1999) suggested that successful and effective service learning experiences should satisfy the following four criteria: (1) personal and interpersonal development; (2) understanding and applying knowledge learnt in class; (3) perspective transformation, and (4) developed sense of citizenship. The present investigation showed that the subject has provided students with such service learning experiences. Upon completion of the Subject, the students stated that the subject has enriched their overall development and has promoted different psychosocial competencies such as reinforcing their self-confidence, enhancing their problem-solving abilities and interpersonal skills. The qualitative feedback of perceiving the team formed as "harvest" could serve as an example of showing the "interpersonal development" of the students. In addition, the students mentioned in the SFQ that the course readings and learning are closely related to the specific community (the migrant children) they are serving which may help maximize the impact on students and service participants (Chupp & Joseph, 2010). Besides the knowledge acquisition and personal development, students have felt more empathy and promoted their compassion towards people in need as a result of studying this subject. The students are serving migrant children in Shanghai and this exposure provides them opportunities to interact with different cultural groups. This exposure thus helps students develop the cultural sensitivity and empathic understanding of the migrant children (Flannery & Ward, 1999). This "perspective transformation" assures the importance of having students experienced in service learning subjects. Through the learning process, the students learn can become aware of the need of the community by learning about the "authentic relationships" and through the interdependence between themselves, the service participants and the serving community.

There is an interesting observation in the present investigation. It is interesting to note that the present investigation on this general university requirement service-learning subject received a highly positive feedback and that the subject contents and service may not directly relate to the disciplines of the registered students. The academic context, referring to the disciplinary-related field, of the service learning is valued in numerous literature (Bringle & Hatcher, 1996; Chupp & Joseph, 2010; Furco, 1996).

Students enrolling the disciplinary-related service learning subject might help them gain further understanding of the related disciplinary knowledge and have a broader appreciation of the discipline (Bringle & Hatcher, 1996). This view might also apply to the students taking service learning subjects at PolyU. The disciplinary-oriented service learning subjects provide students with context-based knowledge and practice opportunities in the related field. This connection between theory and practice generates a higher level of motivation for students to devote the necessary time and efforts to learn the relevant knowledge and deliver the required service. However, the general service learning subjects, in addition to providing them with a professional training in their own discipline, could offer students another perspective on the needs of the service recipients and the issues of the community. In addition, the involvement in the service of other academic contexts helps broaden the students' appreciation of their own disciplines by more reflections and understanding of the community needs (Bringle & Hatcher, 1996).

Despite the positive findings of the study, the limitations of the study should be realized. Although using SFQ is a cost- and manpower-efficient means to understand students' learning outcomes in specific subjects, some scholars still have doubt about whether the Likert-type standardized evaluations are adequate to provide detailed information that can help researchers understand the strengths and weaknesses of the subjects and lead to relevant revisions of each individual subjects (Brew, 2008). In fact, multi-layered meanings could be yielded by combining the qualitative data with the quantitative data obtained.

In addition, Kember, Leung and Kwan (2002) doubted that performing SFQ is only an act of "formality" without improving overall quality of teaching. The performance of the lecturers "is more or less the same [after the evaluation]...and could not see any effects of the evaluation" (Kember et al., 2002, p. 416). It might be possible that inadequate attention has been paid to utilizing the SFQ data effectively to identify areas for improvement in teaching. However, the depth of the data analyses could be deepened by incorporating teachers' self-evaluations of their teaching (Richardson, 2005). More data from the teachers, for example by having the teachers fill in the subjective outcome evaluation (Shek, Siu & Lee, 2007) or individual interviews, could help deepen the understanding of the pedagogical arrangements administered and the personal growth of the teachers in the process of teaching and learning the service learning subjects.

The Education Reform has been taken place in Hong Kong for more than a decade. The revolutionary changes in turning the education system to 3-3-4 (3 years of junior- and 3-year of senior-schooling, and 4-year university), and the offer of "Other Learning Experiences" (including moral and civic education; community services; career-related experiences; aesthetic development and physical education) have posed great challenges to the students and teachers yet stimulated the field to investigate the impact of the changes on students. In one of the arenas of the "Other Learning Experiences" (OLE), the experience of "community service" in their secondary schooling has some "connection" with the experience in service learning in the university setting. It would be interesting to know how the students "evolve" from the voluntary-service-oriented to a both cognitively- and psychologically-demanded (planning of the service and developing "authentic relationships") experiences to see how their perspectives have been transformed.

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An Initial Exploration of the Cross-cultural Validity of the Global Citizenship Scale in the Hong Kong Setting

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ABSTRACT

International service-learning programmes have been increasingly explored and integrated into the curriculum of tertiary education (Smith et al., 2013). Studies support the benefits to students from these projects, including gains in critical thinking skills, integration of theory and practices and global citizenship (Hartman, 2009). However, existing research has largely ignored the development of a systematic metric to measure the impact of international service projects on university students. In this study, we conducted an initial exploration of the Global Citizenship Scale (GCS) (Morais & Ogden, 2010). Eighty-six students from a university in Hong Kong who participated in four international service-learning subjects and one project were surveyed and their responses were analyzed. Results show that the subscales of GCS have good internal consistency and the factor analysis provides partial support for the proposed seven-factor model. These findings support further explorations of the cross-cultural validity of GCS for Hong Kong students.

Key Words: Service-Learning, Global Citizenship, Factor Analysis, Scale Development

1. INTRODUCTION

Global citizenship is becoming an important topic in higher education (Stoner et al., 2014) and included in university-wide learning outcomes of an increasing number of institutions (Stearns, 2009). It is believed that integration of international service-learning programmes in the undergraduate curriculum is an effective educational strategy to engage students and develop them into responsible global citizens (Hunter, 2006; Praetzel, Curcio & Dileo, 1996).

The Global Citizenship Scale (GCS) was developed by Morais & Ogden (2010) and validated with a sample of 348 undergraduate students enrolled in faculty-led, education abroad programmes from the United States. This scale measures global citizenship from three dimensions: social responsibility, global competence and global civic engagement, and can be further divided into seven subscales. Social responsibility is defined as the perceived level of interdependence and social concern to the community (Parekh, 2002). Global competence is understood as recognizing self-limitations, interest in world issues

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and being equipped with intercultural communication skills. Global civic engagement refers to recognizing the social issues and responding through actions.

Applying the scale development process (DeVellis, 2003), Morais and Ogden derived a 30-item inventory in which students were asked to respond on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) as shown in appendix 1 (items sorted according to the subscales). However, since the instrument was developed for use in the Western context, further exploration of the validity of the instrument is needed, especially when administered to Asian students. This paper reports an initial exploration of the cross-cultural validity of the GCS for assessing the outcomes of international service-learning programmes in the Hong Kong context.

2. METHODOLOGY

2.1 Participants

The 30-item GCS was administered to 97 students participating in the international service-learning programmes in one university in Hong Kong. In total, 86 valid questionnaires were returned and analyzed, with a response rate of 88.7%. Sixty-eight (79.1%) of the students were in their first year of study, 7 (8.1%) in their second year, 8 (9.3%) in their third year, and the remaining 3 (3.5%) students were in their final year. Sixty-seven (77.9%) of them were taking a credit-bearing service-learning subject (4 subjects in total), and the remaining 19 (22.1%) were participants of an extra-curricular international service project. Project-wise, 41 (47.7%) students worked in Cambodia, 17 (19.7%) students in Indonesia, 19 (22.1%) students in Vietnam and 9 (10.5%) students in Rwanda.

2.2 Administration

Course instructors or teaching assistants visited the class to distribute the paper-based questionnaires to the students 2 weeks before the trip departure day. The purpose of the survey was explained to the students and they were required to complete and return the questionnaires within 15 minutes.

2.3 Data Analysis Methods

To determine whether the inventory was appropriate for use in the Hong Kong setting, exploratory factor analysis (EFA) was conducted. The Kaiser-Meyer-Olkin (KMO) value was calculated to measure the sampling adequacy for the analysis (Kaiser, 1970). The factor structure and the reliability of each subscale were examined using alpha factoring exploratory factor analysis and Cronbach's alpha (Cronbach, 1951), respectively. Direct oblimin rotation method was used to clarify the factor structure obtained from the EFA as it was expected that the factors would be interrelated (Brown, 2009). All negative items were reverse coded before analysis.

3. RESULTS & DISCUSSION

Based on the guidelines suggested by Hutcheson & Sofroniou (1999), the result of KMO test (0.767) classified the data source as "middling", which suggested that the sample was adequate for conducting factor analysis.

Table 1 shows the comparison of the coefficients of internal consistency (Cronbach's alpha) of the US and HK samples. The alpha values obtained for the subscales in this study were comparable to those of the US sample, and ranged from 0.74 to 0.86 which are generally accepted as good (Kline, 1993).

Dimension and subscales	Cronbach's alpha	
	US Sample	HK Sample
Social responsibility	0.79	0.76
Global competence		
- Self-awareness	0.69	0.74
- Intercultural communication	0.76	0.75
- Global knowledge	0.67	0.75
Global civic engagement		
- Involvement in civic organizations	0.92	0.86
- Political voice	0.86	0.85
- Global civic activism	0.74	0.76

Table 1 Comparison of the coefficient of internal consistency of each subscale between USA and Hong Kong Samples

Following the best practices in EFA (Costello & Osborne, 2005), we first ran an EFA and retained all factors with eigenvalues greater than 1. Seven factors were extracted which explained 70.6% of the item variance. Then, we explored the six-factor model and eight-factor model and compared their factor structures with that of the seven-factor model. The six-factor model explained 66.9% of the item variance while the eight-factor model explained 73.7%. In the six-factor model, two of the proposed subscales (global competence: self-awareness and global civic engagement: global civic activism) were grouped under the same factor. On the other hands, in the eight-factor model, the factor structure is scattered. For example, 6 items from 4 of the proposed subscales were grouped under a single factor and these items also heavily cross-loaded on other factors. Therefore, based on the results, we conclude that the seven-factor model is a better fit of our data.

Table 2 shows the factor loading of each item with an absolute value greater than 0.4 (Stevens, 2012). The factor structure was similar to that reported by Morais and Ogden (2010) with 24 out of 30 items clearly grouped. SR_5 did not load significantly on any factor (i.e. the absolute value of the factor loadings were below 0.4).

Factor one had ten items, with three of them from the subscale of “self-awareness” and one from “involvement in civic organizations” under “global civic engagement” loading most significantly on the factor. Factor loadings were high (ranging between 0.50 and 0.76). The second factor contained five items, all of them were from the “social responsibility” scale and four of them did not cross-loaded on other factors. Factor three is composed of six items, with four of them under “political voice” and two under “involvement in civic organizations”. The factor loadings were negative and ranged between -0.49 and -0.80. However, items GCE_1.6 and GCE_1.2 cross-loaded heavily on Factor 1 and Factor 6. Factor four had three items, two from “intercultural communication” and one from “global civic activism”. Factor five was formed with six items from “global competence”. Three of them were from the subscale of “global knowledge”, one item from “intercultural communication” and two items from “self-awareness”. The sixth factor included ten items. Eight of them were from “involvement in civic organizations” with the factor loadings ranging from 0.44 to 0.86. Of these eight item, six loaded most significantly on this factor. The other two items were from “social responsibility” and “intercultural communication”. The last factor, Factor 7, contained five items. Three of them were from “global civic activism”, one from “social responsibility” and one from “involvement in civic organizations”. Eleven of the thirty items cross-loaded heavily on more than one factors.

Item Number			Rotated Factor Loadings							
			1	2	3	4	5	6	7	
Social Responsibility		SR_1	0.668							
		SR_2	0.58							
		SR_3	0.698							
		SR_4	0.636							
		SR_5								
		SR_6	0.537						-0.438	-0.564
Global Competence	Self-awareness	GC_1.1	0.76							
		GC_1.2	0.71					-0.459		
		GC_1.3	0.5					-0.452		
	Intercultural Communication	GC_2.1						-0.688		
		GC_2.2						-0.661		
		GC_2.3	0.535					-0.562	0.473	
	Global Knowledge	GC_3.1	0.507						-0.749	
		GC_3.2						-0.728		
		GC_3.3						-0.729		
Global Civic Engagement	Involvement in Civic Organizations	GCE_1.1						0.762		
		GCE_1.2	0.576	-0.494				0.451		
		GCE_1.3						0.758		
		GCE_1.4	0.538						0.8	
		GCE_1.5						0.857		
		GCE_1.6	0.504	-0.601				0.443		
		GCE_1.7	0.483						0.618	
		GCE_1.8						0.471	0.465	
	Political Voice	GCE_2.1	-0.793							
		GCE_2.2	-0.747							
		GCE_2.3	-0.802							
		GCE_2.4	-0.78							
	Global Civic Activism	GCE_3.1						0.869		
		GCE_3.2	0.521						0.549	
		GCE_3.3	-0.524					0.451		
Eigenvalues			7.35	3.46	2.81	1.96	1.19	1.04	0.74	
Variance explained:			24.50%	11.54%	9.35%	6.55%	3.96%	3.74%	2.46%	

Note: Factor loadings between -0.4 to 0.4 are hidden

The highest loading among the factors for an item is indicated in bold.

Table 2 Results of Exploratory Factor Analysis of the Global Citizenship Scale

4. CONCLUSION

The purpose of this study was to report on an initial exploration of the cross-cultural validity of the GCS in the Hong Kong context. The results indicate that the subscales of GCS have generally good internal consistency and that a seven-factor model can be replicated in the Hong Kong setting, although a few of the items did not load on the factor as hypothesized. This study has the limitations of small sample size, students coming from one university in Hong Kong and the background of the students being relatively homogeneous. Therefore, further study should aim at involving a larger sample with more heterogeneous subjects from more universities in Hong Kong. To conclude, the findings provide partial support for further validation of the instrument for measuring the impact of international service-learning programme in the Hong Kong setting.

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Social Responsibility (SR)

SR_1	I think that most people around the world get what they are entitled to have.
SR_2	It is OK if some people in the world have more opportunities than others.
SR_3	I think that people around the world get the rewards and punishments they deserve.
SR_4	In times of scarcity, it is sometimes necessary to use force against others to get what you need.
SR_5	The world is generally a fair place.
SR_6	I think that many people around the world are poor because they do not work hard enough.

Global Competence (GC) - Self-awareness

GC_1.1	I know how to develop a place to help mitigate a global environmental or social problem.
GC_1.2	I know several ways in which I can make a difference on some of this world's most worrisome problems.
GC_1.3	I am able to get other people to care about global problems that concern me.

Global Competence (GC) - Intercultural communication

GC_2.1	I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.
GC_2.2	I often adapt my communication style to other people's cultural background.
GC_2.3	I am able to communicate in different ways with people from different cultures.

Global Competence (GC) - Global knowledge

GC_3.1	I am informed of current issues that impact international relationships.
GC_3.2	I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.
GC_3.3	I am able to write an opinion letter to a local media source expressing my concerns over global inequalities and issues.

Global Civic Engagement (GCE) - Involvement in civic organizations

GCE_1.1	Over the next 6 months, I plan to do volunteer work to help individuals and communities abroad.
GCE_1.2	Over the next 6 months, I will participate in a walk, dance, run, or bike ride in support of a global cause.
GCE_1.3	Over the next 6 months, I will volunteer my time working to help individuals or communities abroad.
GCE_1.4	Over the next 6 months, I plan to get involved with a global humanitarian organization or project.
GCE_1.5	Over the next 6 months, I plan to help international people who are in difficulty.
GCE_1.6	Over the next 6 months, I plan to get involved in a program that addresses the global environmental crisis.
GCE_1.7	Over the next 6 months, I will work informally with a group toward solving a global humanitarian problem.
GCE_1.8	Over the next 6 months, I will pay a membership or make a cash donation to a global charity.

Global Civic Engagement (GCE) - Political voice

GCE_2.1	Over the next 6 months, I will contact a newspaper or radio to express my concerns about global environmental, social, or political problems.
GCE_2.2	Over the next 6 months, I will express my views about international politics on a website, blog, or chat room.
GCE_2.3	Over the next 6 months, I will contact or visit someone in government to seek public action on global issues and concerns.
GCE_2.4	Over the next 6 months, I will participate in a campus forum, live music, or theater performance or other event where young people express their views about global problems.

Global Civic Engagement (GCE) - Global civic activism

GCE_3.1	If at all possible, I will always buy fair-trade or locally grown products and brands.
GCE_3.2	I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.
GCE_3.3	I will boycott brands or products that are known to harm marginalized global people and places.

Appendix 1 Item Pool of Global Citizenship Scale (GCS)

Session 4

Health and language Services

¹**Why service-learning? A discussion on employing service-learning in enriching clinical education for health-care professions.**

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ABSTRACT

Service-Learning or service-based learning is being recognized effective pedagogical tool. The integration of community service into the academic curriculum in higher education is embraced whole-heartedly in many countries, and is gathering momentum in many other places all over the world.

The differentiation and distinction of “Service” provision and “Learning” are debatable. The provision of service and enhancement of students’ learning are becoming more complex and dynamic in the real world. Nursing, as one of the health care professions, has been serving clients with changing health status in a diverse environment. Currently, clinical education is also known as internship, work-integrated education, or clinical practicum in different context. Whichever term is used, this article discusses the different rationales of integrating service-learning into clinical education of nursing profession. The integrating of service-learning can be highlighted and applied not just to the nursing profession: it can be generalized and promoted to other helping professions.

Key Words: service-learning, nursing profession, clinical education, practicum, work-integrated education, internship.

1. INTRODUCTION

The Motto of The Hong Kong Polytechnic University (PolyU) for both staff and students is “*to learn and to apply, for the benefit of mankind*”. On the other hand, as a result of changes in the structure of education in Hong Kong with the “Diploma of Secondary Education” (DSE) in 2012, the PolyU has expanded the Bachelor Degree curriculum from 3 years into a 4 year programme. To better equip the graduates, The PolyU is the first university in Hong Kong initiating “Service-learning” subjects as mandatory. This aligns with the calling that tertiary education should integrate social responsibility and community engagement, with academic and research outputs. Ngai et al (2013) have reported that through participation in service-learning subjects in overseas under-developed regions, PolyU students showed positive growth and improvement in aspects of interpersonal skill, teamwork, problem solving and social responsibility. Indeed, some PolyU students and graduates reflected they have gained and learnt to be more committed with greater civic responsibility and global outlook. Besides, the importance of professional ethics has been highlighted as well as development of generic competencies through the participation of service-learning. Given these benefits, the question is how to integrate o integrate service-learning into the Nursing profession.

Nursing as one of the health care professions

As one of the health care professions, the Hong Kong Nursing Council (HKNC) denotes “*Nursing is a caring, enabling, knowledge-based and competence-assessed profession which is dynamic in meeting the changing health needs of the society*” (HKNC, 2014). Nurses are dedicated to promoting and maintaining health, care for the sick and the disabled, no matter the individuals, or families, groups, institutions,

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in home settings and the community.

The practice of nursing is client-focused and evidence-based in carrying out primary, secondary and tertiary levels of health care. Primary health care emphasizes on health promotion and disease prevention, secondary level refers to disease management, while tertiary level means research and development of health care. Thus, the provision of care is best achieved through the person under care (the client) integrating different two elements (the environment and the client) together with health as the outcome. In this framework, “the client” is seen as a unique, holistic being with the potential to learn and develop through interaction with others and the environment. “The environment” refers to both external and internal components with ever changing nature, which generates both positive and negative stressors. The internal environment includes biological, psychological, spiritual and intellectual components of the person. Meanwhile, the external environment encompasses social, cultural and situational influences. Both the internal and external environments interact and affect the person’s function as an individual, as well as one of the family members, social groups and the community (HKNC, 2014). “Health” is defined as “*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity* (WHO, 1948)”. The core value of endorsing service-learning into nursing is for all-round development and applying of professional theories in the real world. Appropriate learning objectives as health promotion or disease prevention in helping can better fit the needs of individual and community.

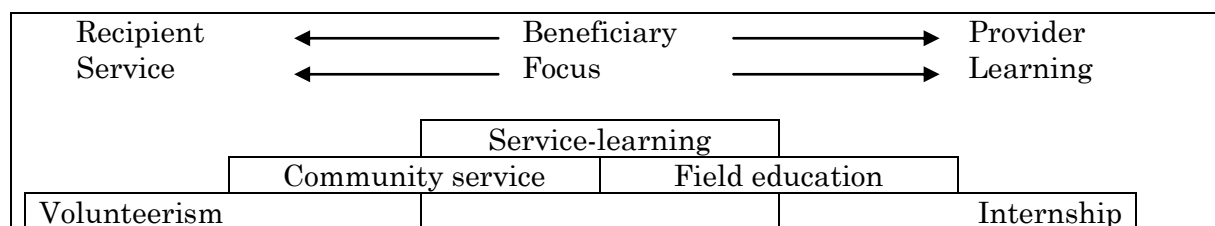
Effective nursing works through problems solving and collaboration with clients and other health care professionals in achieving mutually agreed goals and objectives on health aspects. Ultimately, the provision of holistic, client-centred care requires professional knowledge and skills through adoption of caring and responsible attitudes; effective communication and interpersonal skills, grounded on ethical thinking and behaviour (HKNC, 2014). These attributes can be better enhanced through service-learning to nursing students.

The concept of service-learning and the differentiation

Service-learning, can be defined and seen in difference contexts and content. However, the distinction of how to achieve a balance between “service” and “learning” does matter. Furco (1996) recognized the importance of this issue, and in considering the appropriate balance, he derived the following typology:

Emphasis	Primary	Secondary
Service-LEARNING	Learning goals primary	Service outcomes secondary
SERVICE-learning	Service outcomes primary	Learning goals is the secondary
Service-learning	Service and learning goals are completely separated	
SERVICE-LEARNING	Service and learning goals are of equal weight and both enhances the other for all participants	

A further distinction among service-learning programmes is another point to discuss. When deciding on the nature of any given programme, a question arises of which participant need (recipient or provider) is more important. The balance rests on careful consideration, since a **service** focus on recipients’ (meaning patients) benefits lies at one end, while **learning** stresses on the learning needs of students, and lies at the other. Thus, Furco (1996) has given the following classification on volunteerism, community service, field education, internship and service-learning when choosing between service programmes:



Distinction among service programmes (Furco, 1996)

The definitions of these types of programme is given as follows. At one extreme, “Volunteerism” is the engagement of students in voluntary service to the end users primarily intended beneficiary as the service recipient. “Community Service” is the engagement of students in activities focusing on service provision for the benefits of service activities are devoted to the recipients. At the other end of the scale, “Internships program” means engaging students in service activities purposefully for students to have more hand-on experiences in their learning. “Field education” refers to the provision of students with co-curricular service opportunities which are related but not fully integrated to formal academic education. Moreover, experiential education moves and changes to a certain degree along a continuum with the above mentioned concepts (Furco, 1996).

2. DISCUSSION

If nursing functions as problem-solving and collaboration, targeting at mutually agreed goals and objectives on health aspects, nursing education needs to refine and develop the curriculum accordingly. The integration of knowledge and skills through adoption of caring and responsible attitudes, plus using effective communication and interpersonal skills helps to accomplish the learning outcomes of nursing education. Therefore, training and education of the nursing profession has integrated both theoretical learning with clinical practicum. The term “practicum” denotes clinical practice with the application and integration of theories into clinical settings for the development and education of the future nurses. Moreover, clinical education is also known as internship, clinical practicum or “work integrated education” (WIE). These clinical educational activities enable nursing students to achieve their learning objectives in a real work-oriented scenario. Meanwhile, they can learn to contribute to the health care industry and community tangibly. Undergraduates are not only integrated their professional competence, but also enhanced their ability of independent thinking, good communication skills and global outlook. Clinical education helps to develop students towards being *students with professional competence* and *preferred graduates* of as stated in the mission of the School of Nursing, PolyU (HKPU, 2014). However, the differentiation between service-learning from clinical education are the former one addresses the needs of all participants and tailored the service with service recipients, instead of focusing on the learning need of students.

Clinical education is supposed to be done under the supervision of guide (qualified) nurses with the co-operation and assistance of other nurses in the frontline. Students are expected to be able to perform as if playing the roles and functions of safe, competent and caring nurse when they are qualified as nurses. Most of the clinical practicum takes place in hospitals, while only a minor percentage of clinical practicum takes place in the community. Facilitation of learning of generic skills other than clinical skills and caring attitudes in both clinical and non-clinical settings would enable growth and development to advance (SN, 2014). Service-learning benefits nursing students in which they can

learn from all participants like supervisors, team-members and service recipients through team work and service delivery. A study on the impact of community-based learning experiences effectiveness (Beach, et. al, 2003) showed that students had positive gained in aspects like confidence, mastery, direct experience, communication, attitudes, theory-practice, future career, awareness, accumulation & variety, better than classroom learning. Thus, service-learning may enable students to be better equipped in team building by critical thinking, problem solving, communication and global outlook.

If nursing is the provision of care to a person with holistic approach, the professional learning should also be focused holistically. The professional competence of a nurse can be demonstrated through fulfillment of various roles like educator, counselor, health promoter, care co-ordinator, client advocator, manager, supervisor, change agent, leader and public health advocator. Nursing students are expected to show competence in all attributes of ability, knowledge, skills and attitude (HKNC, 2014). Service-learning approach can better offer opportunities to students in accomplishing these attributes in the real world.

Typically, the level of care can be categorized into three levels: primary, secondary and tertiary. Primary means to preserve and promote health practice, secondary refers to cure and treatment of diseases and disabilities, while the tertiary level focuses on research and development of new therapies and technologies in health care. Provision of service-learning for nursing students serves to offer more opportunities in the delivery of care at primary level than secondary level. Other than profession development, service-learning further enhances students' social responsibility and community engagement. It is through the provision of service-learning nursing students can perform better with civic engagement with instant feedback from service recipients (Seifer, 1998). Eventually, with the integration of the concept of service-learning, both needs and benefits of recipients and providers can be taken into careful consideration.

Good practice of combining service with learning should integrate into elements which are an effective and sustained program. , Thus, good practice in community service-learning pedagogy includes the following attributes:

- *an effective and sustainable program;*
 - *engage people to be responsible;*
 - *structure opportunities for reflection critically;*
 - *articulates clear service and leaning goals;*
 - *allows the needy to spell out their needs;*
 - *clarifies with responsibility, matches up expectations and needs;*
 - *expects genuine, active and sustain commitment;*
 - *includes training, supervision, monitoring, support recognition and evaluation to meet the service needs and learning goals;*
 - *insures flexibility; and commits to participation by a diverse population.*
- (Howard, 1993)

Moreover, The potential benefits of service-learning in health care professions participating applies to five aspects: the students, faculty, academic institutions, community organization, and service recipients (Seifer, 1998). Service-learning is distinguished from clinical practicum as they bring changes in methodology of teaching and learning. Roles of health care professions are engaged on the community, and community capacity is being enhanced. Thus, the dynamics of service-learning balance between service and learning objectives, at the same time emphasis made on reciprocal learning , develop citizenship skills and achieve social changes, address community-identified needs and enroll community partners all together (Seifer, 1998).

Bloom's (2014) taxonomy of educational objectives have identified three domains are identified: cognitive, psychomotor and affective. The cognitive domain refers to thinking and acquiring of knowledge, psychomotor domain means doing and learning of skills, while affective domain indicates feelings and learning of attitudes. Thus, based on Bloom's "Taxonomy of educational objectives", students' learning can be better off by addressing all three domains. In other words, students learn theories and knowledge in higher education, practice skill in the field, they can then enhance the experience by reflection and the affective elements. Service-learning is another dimension to endorse the three domains by bringing meaning and values on top of skills and knowledge. It is done by engaging students to be more committed to apply theories and integrate skills into the real world. Eventually, through the reflections and other related learning activities on site, affective learning can be enhanced through receiving, responding, valuing organizing and internalizing to stimulate learning during service provision. The affective learning enriches students' development to be deep-thinkers and good learners, by making use of debriefing by facilitators. Besides, reflection enables students to gain insights of flexible, supportive, communicative, and team building. It would be a wonderful experience to see positive changes when dealing with unexpected events like difficulties, language barriers, cultural differences, and group dynamics, in the real world. These are marvelous experiences for students to be able to be more flexible, capable, willing to open up, giving and helping as compared to any simulation in classroom or laboratory settings.

Table 1: Bloom's Taxonomy of Educational Objectives for Knowledge-Based Goals

LEVEL OF EXPERTISE	DESCRIPTION OF LEVEL	EXAMPLE OF MEASURABLE STUDENT OUTCOME
1. Knowledge	Recall, or recognition of terms, ideas, procedure, theories, etc.	When is the first day of Spring?
2. Comprehension	Translate, interpret, extrapolate, but not see full implications or transfer to other situations, closer to literal translation.	What does the summer solstice represent?
3. Application	Apply abstractions, general principles, or methods to specific concrete situations.	What would Earth's seasons be like if its orbit was perfectly circular?
4. Analysis	Separation of a complex idea into its constituent parts and an understanding of organization and relationship between the parts. Includes realizing the distinction between hypothesis and fact as well as between relevant and extraneous variables.	Why are seasons reversed in the southern hemisphere?
5. Synthesis	Creative, mental construction of ideas and concepts from multiple sources to form complex ideas into a new, integrated, and meaningful pattern subject to given constraints.	If the longest day of the year is in June, why is the northern hemisphere hottest in August?
6. Evaluation	To make a judgment of ideas or methods using external evidence or self-selected criteria substantiated by observations or informed rationalizations.	What would be the important variables for predicting seasons on a newly discovered planet?

(Bloom, 2014)

Table 2: Bloom's Taxonomy of Educational Objectives for Skills-Based Goals

LEVEL OF EXPERTISE	DESCRIPTION OF LEVEL	EXAMPLE OF MEASURABLE STUDENT OUTCOME
Perception	Uses sensory cues to guide actions	Some of the colored samples you see will need dilution before you take their spectra. Using only observation, how will you decide which solutions might need to be diluted?
Set	Demonstrates a readiness to take action to perform the task or objective	Describe how you would go about taking the absorbance spectra of a sample of pigments?
Guided Response	Knows steps required to complete the task or objective	Determine the density of a group of sample metals with regular and irregular shapes.
Mechanism	Performs task or objective in a somewhat confident, proficient, and habitual manner	Using the procedure described below, determine the quantity of copper in your unknown ore. Report its mean value and standard deviation.
Complex Overt Response	Performs task or objective in a confident, proficient, and habitual manner	Use titration to determine the K_a for an unknown weak acid.
Adaptation	Performs task or objective as above, but can also modify actions to account for new or problematic situations	You are performing titrations on a series of unknown acids and find a variety of problems with the resulting curves, e.g., only 3.0 ml of base is required for one acid while 75.0 ml is required in another. What can you do to get valid data for all the unknown acids?
Organization	Creates new tasks or objectives incorporating learned ones	Recall your plating and etching experiences with an aluminum substrate. Choose a different metal substrate and design a process to plate, mask, and etch so that a pattern of 4 different metals is created.

(Bloom, 2014)

Table 3: Bloom's Taxonomy of Educational Objectives for Affective Goals

LEVEL OF EXPERTISE	DESCRIPTION OF LEVEL	EXAMPLE OF MEASURABLE STUDENT OUTCOME
Receiving	Demonstrates a willingness to participate in the activity	When I'm in class I am attentive to the instructor, take notes, etc. I do not read the newspaper instead.
Responding	Shows interest in the objects, phenomena, or activity by seeking it out or pursuing it for pleasure	I complete my homework and participate in class discussions.
Valuing	Internalizes an appreciation for (values) the objectives, phenomena, or activity	I seek out information in popular media related to my class.
Organization	Begins to compare different values, and resolves conflicts between them to form an internally consistent system of values	Some of the ideas I've learned in my class differ from my previous beliefs. How do I resolve this?
Characterization by a Value or Value Complex	Adopts a long-term value system that is "pervasive, consistent, and predictable"	I've decided to take my family on a vacation to visit some of the places I learned about in my class.

(Bloom, 2014)

3. CONCLUSIONS

Service-Learning has been recognized as an effective pedagogical tool to integrate community service into the academic curriculum in higher education. The differentiation of "Service" provision and "Learning" with objectives helps to clarify volunteerism, community service, field education and internship. Studies show that through participation in service-learning subjects, students showed positive growth and improved interpersonal skills, teamwork, problem solving and social responsibility. Some students reflect that they have gained and learned to be more committed with civic responsibility and global outlook. Meanwhile, professional ethics are being endorsed together with the development of generic competences.

Nursing, as one of the health care professions, is dedicated to help and serve clients with changing health status in a diverse and changing environment. Nursing education emphasizes with clinical practicum. It can also be integrated with the concept of service-learning. The development of nursing graduates to be more caring and responsible. Effective communication and interpersonal skills with enhanced social responsibility

and community engagement can be highly achieved through service-learning. If nursing is the provision of holistic care to a person, the development of students through their learning experiences should also be focused in all-rounded or enriched curriculum. Service-learning can better prepare our graduates in meeting the demand for core competences, as well as responsible and compassionate persons. Hopefully, through the provision of service-learning to community partners and recipients, students can be better developed with civic engagement. In addition, service-learning enhances students' engagement of application of cognitive learning with integration of psychomotor learning through the reflective learning into a real world. The learning experience may be more sustainable as well as enhancing all-round professional development.

This paper explores the reasons to employ service-learning in nursing education in enriching clinical competence. The benefits to both students, service providers and recipients can be a booster than other learning activities as internship, work-integrated education or clinical practicum. The concept can also be highlighted and not limited to the nursing profession only. Instead, it can be promoted to other health care or helping professions as well.

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Promoting Positive Attitude towards Elderly among Healthcare Students through Service Learning

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ABSTRACT

The ageing population is expected to significantly increase the demand of healthcare services. To meet this challenge, it is necessary to equip healthcare students with attributes for providing quality elderly care services. Among them, a positive attitude towards older people is important to develop rapport with clients and facilitate service delivery. By adopting the service learning model where the teaching of elderly care knowledge is coupled with the delivery of healthcare services, it is anticipated that the direct interactions with elderly can promote the development of positive attitude. The present study reports the effect of service learning on fostering positive attitude towards elderly people among undergraduate healthcare students. The students attended a 14-week service learning subject designed on the platform of a nurse-led outreach mobile clinic. The subject involved preparatory classroom activities and hands-on skills training, as well as the provision of health assessment services and the delivery of health talks or workshops in local communities. Students' attitude towards the elderly was measured by the Kogan's Attitude toward Old People Scale at the beginning and at the end of the subject. The results suggested that participation in the subject led to significant improvement in attitude towards elderly in various aspects. The study provides supportive evidence for advocating service learning as a promising pedagogical method in developing favourable attributes for students, which might be difficult to achieve through traditional classroom teaching and written examinations.

Key Words: Service learning, attitude, elderly, healthy ageing, healthcare education

1. INTRODUCTION

Population aging is becoming a global concern in developed countries across the world. The phenomenon is partly attributed to advancement in medicine in developed countries, which prolonged the average life expectancy, and the low birth rate. Being one of the major cities in Asia, Hong Kong is no exception. According to the population statistics published by the Hong Kong Government [Census and Statistics Department 2012], it is projected that the percentage of population over the age of 65 in the city will increase from 13% in 2011 to 30% in 2041. Such a rapid growth in aged people is expected to come with an increasing demand of healthcare services for elderly. Frontline healthcare professionals will have more opportunities to encounter elderly people and provide them with necessary services. In order to better equip healthcare students with attributes for providing quality services that meet the unique needs of the elderly, healthcare educational programmes should incorporate teaching and learning elements targeted for elderly care. Specifically, promoting understanding about the process of aging and associated chronic illnesses, skills for effective communication with elderly, and a

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positive attitude towards the aged would be some of the most important educational goals for a university subject in elderly healthcare.

In the recent decades, service learning, a pedagogical method combining classroom teaching with well-organized community service programmes [Bringle and Hatcher 1996], has become increasingly popular in higher education. By presenting students with real-life situations in the community, they actually practise what they have learnt from textbooks and in classroom, and achieve deep learning through reflection upon their experience. The positive impacts of this experiential learning method on various aspects has been widely documented in the literature, including students' academic learning and learning outcomes [Astin and Sax 1998; Strage 2000; 2004], learning climate and motivation [Levesque-Bristol et al. 2010], civic responsibility [Astin and Sax 1998; Morgan and Streb 2001], and career development [Vogelgesang and Astin 2000]. In view of the significance, The Hong Kong Polytechnic University pro-actively advocates service learning in higher education. In particular, starting from the 2013 academic year, a new policy is implemented which requires every undergraduate student to complete at least one credit-bearing subject on service learning in order to be qualified for the conferment of degree. This policy is in alignment with the University's aim to develop students into all-round global citizens with the heart to serve the community.

The present paper reports a study on the effect of service learning on the promotion of positive attitude towards elderly through a service learning subject offered to students specifically designed for healthcare students of the Hong Kong Polytechnic University. In addition to attendance of lectures on health literacy for elderly and healthy ageing in this subject, students also learned hands-on skills in conducting health screening and delivered the services for underprivileged elderly in the community. They were also required to design and deliver health talks or workshops pertaining to the needs of the elderly. Reflection on the whole learning process is also an essential component of the subject. In the study, students' attitude towards older people was measured at the beginning (pre-test) and at the end (post-test) of the subject using a self-report questionnaire (Kogan's Attitude toward Old People Scale) [Kogan 1961]. Details of the subject and the study are discussed in the following sections.

2. METHOD

2.1 Participants

A total of 26 students enrolled on the subject. The response rate of the pre-test and post-test was 96.15% (25/26) and 92.31% (24/26) respectively. The 24 students who responded in both tests were local Hong Kong Chinese students. They were first or second year undergraduate students majoring in nursing, mental health nursing, physiotherapy or occupational therapy. The demographics of the 24 participating students are shown in Table 1.

Table 1. Demographic information of the participants in the service learning subject.

	<i>n</i>	%
Gender		
Male	9	37.50
Female	15	62.50
Major		
Nursing	8	33.33
Mental health nursing	5	20.83
Physiotherapy	10	41.67
Occupational therapy	1	16.67
Year of study		
Year 1	18	75.00
Year 2	6	25.00

2.2 Subject Design and Implementation

The service learning subject concerned in this study – *Promotion of Healthy Ageing in the Community* – was offered as a one-semester subject over a 14-week period from January of 2014. The major objective of the subject was to raise students' awareness of population ageing and its impact on the society. The students were expected to be able to address the importance of healthy ageing and demonstrate deeper understanding and positive attitude towards community-dwelling elderly upon the completion. In the subject, the students had opportunities to put knowledge into practice by conducting health screening and conveying health literacy directly to community-dwelling elderly in Hong Kong. They provided the healthcare services at the PolyU-Henry G. Leong Mobile Integrative Health Centre (MIHC), a nurse-led mobile clinic commuting to various areas in Hong Kong to deliver a range of healthcare services for underprivileged elderly, and the collaborating non-governmental organizations (NGOs).

The subject contained three components: (1) pre-service preparation, (2) service delivery, and (3) post-service reflection. In pre-service preparation, the students were equipped with the background, knowledge, and practical skills related to health literacy and healthy aging, which were necessary for them to deliver the community services in the second stage. For this purpose, lectures, workshops and seminars given by advanced practice nurses (who were subject lecturers) and experts from collaborating NGOs were arranged to share their knowledge and experience in their respective areas to the students. Students also learned specific communication skills for communicating with elderly in the local community, and received practical training in the mobile clinic to learn about integrative healthcare as well as the hand-on skills required to deliver the services. In addition, the students, forming five separate project teams, were required to design and plan for a health talk or workshop for the elderly with guidance from the subject lecturers.

In service delivery, students delivered healthcare services to underprivileged elderly individually at the mobile clinic under the supervision of advanced practice nurses. This involved basic health assessments for individual elderly, including vital signs assessments (e.g. blood pressure, oxygen saturation, BMI, blood glucose, waist-to-hip ratio, and temperature), mobility and balance assessment, visual acuity assessment, mood and cognitive assessment, nutritional and diet assessment, pain assessment, and oral hygiene assessment. Figure 1 shows a student communicating with an elder in the mobile clinic while performing diet assessment. Relevant health education was also provided by the students to the elderly individually during the health assessment services. Besides, each project team was required to deliver a health talk or workshop to a group of elderly in the mobile clinic or community centres. The topics were related to healthy aging and their professional training, including home care for hypertension, stretching exercise, prevention of dementia, healthy diet, and fall prevention. The talks and workshops integrated health information delivery with interactive activities to stimulate the interest of the elderly. For example, in the talks on stretching exercises, the participating elderly performed different exercises by following the demonstrations and advice provided by the students. In the talks on dementia, the elderly played interactive games on card matching and on shopping with a list of items in order to practise their memory. In the fall prevention talks, the students demonstrated improper footwear choices through a role-play, and the proper use of walking aids and ways to maintain balance of the elderly. Figure 2 shows the students giving a health talk to a group of older people in the mobile clinic. One of the central objectives to be achieved through the delivery of the health assessment services, talks and workshops was to

equip the elderly with knowledge on health literacy and healthy lifestyle, thereby promoting lifestyle modification for healthy ageing.



Fig. 1. A student performing diet assessment for an elder in the mobile clinic.



Fig. 2. A health talk on hypertension was delivered to a group of elderly in the mobile clinic by service-learning students.

In post-service reflection, students performed critical reflection on their experience in the whole service learning process by means of a written reflective journal, from the aspects of community service, underprivileged elderly, social impacts of population aging, and promotion of healthy aging. Each project team also wrote a report and gave a presentation in the class regarding the learning experience they gained from the talk or workshop.

2.3 Measurement

The self-report questionnaire used to measure the students' attitude towards the elderly in this study was the Kogan's Attitude toward Old People Scale [Kogan 1961]. The scale has been psychometrically verified as having high reliability and good content and construct validity in Taiwan Chinese population [Yen et al. 2009]. The scale has also been translated into different languages (including Japanese, Swedish, Greek and Iranian) and has been shown to be a reliable and valid measurement of attitude towards old people in different settings, with the reliability index Cronbach's alpha ranging from

0.80 to 0.87 for the total scale in these studies [Lambrinou et al. 2005; Ogiwara et al. 2007; Rejeh et al. 2012; Söderhamn et al. 2001].

Kogan's scale consists of a total of 34 statements describing perception towards old people in eight different aspects. Seventeen items express negative sentiments about old people, and each is paired with a positively-worded statement describing the reverse. Six response categories are provided for each item, including "strongly disagree", "disagree", "slightly disagree", "slightly agree", "agree", and "strongly agree". For the positively-worded items, these responses correspond to the scores of 1, 2, 3, 5, 6, and 7 respectively. For the negatively-worded items, they are scored with 7, 6, 5, 3, 2, and 1 respectively. In the rare case where the respondent failed to respond to an item, a score of 4 was given. Consequently, the possible range of the total score (obtained by adding up the scores of all items) was from 34 to 238, with a higher score representing a more positive attitude towards old people. Furthermore, the seventeen pairs can be clustered into eight categories based on their manifest content [Kogan, 1961]. Item pairs 1, 5, 12 are related to the residential aspects of old people. Item pairs 2 and 8 concern the feeling of discomfort and tension in accompanying old people. Item pairs 11 and 13 measure the perceived extent of difference among old people. Item pairs 9, 10, and 16 measure the nature of interpersonal relations across age generations. Item pairs 4 and 17 represent the theme of dependence of old people. Item pairs 3 and 6 are related to the cognitive style and competency of old people. Personal appearance and personality are tapped by item pairs 14 and 15. Item pair 7 on itself measures the perceived socioeconomic power of elderly. Scores in all items of each category are added up to compute the composite score of the corresponding category.

2.4 Data Collection

The survey was administered at two time points: at the third week of the semester after the subject add-drop period (pre-test); and at the end of the subject, i.e. in the fourteen week of the semester (post-test). The questionnaire was attached with a consent form and an information sheet explaining the purpose of the study. All participants in this study signed and gave informed consent regarding the objectives and procedures of the study. The study was approved by the Human Subjects Ethics Sub-committee of the University.

2.5 Data Analysis

The data were analyzed using the IBM SPSS Statistics Version 20 package (IBM Corporation, Armonk, New York). Paired-samples *t*-tests were performed to compare the pre-test and post-test scores. The analyzed items included the total score (which is an overall measure of positive/negative attitude towards older people), the composite score obtained from summing up all positive items, the composite score for all negative items, the composite scores of the eight different aspects described in the previous section, and the score for each individual item. The significance level was fixed at .05 for the analyses.

3. RESULTS

Table 2 shows the pre-test and post-test scores of the total score and composite scores obtained from the attitude towards old people scale. The analysis revealed that the service learning subject had a strong effect in promoting positive attitude towards elderly among the healthcare students. The total score [$t(23) = 5.303, p < .001$], the composite score for positively-worded items [$t(23) = 5.013, p < .001$], and the composite score for negatively-worded items [$t(23) = 4.668, p < .001$] all showed statistically significant increase when comparing the post-test scores with the pre-test scores. While

the perceived extent of difference among old people did not show a significant change, all other seven aspects of perception towards elderly exhibited a significant improvement in attitude after the students had completed the subject. Paired-samples *t*-tests comparing the pre-test and post-test scores of the individual items indicated significant increases in score for 15 out of the 34 items, while no item showed a significant decrease in score.

Table 2. The pre- and post-test scores obtained using the Kogan's attitude toward old people.

Item	Pre-test		Post-test		<i>t</i> (23)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Total score	154.83	13.386	172.08	10.701	5.303	< .001
Positively-worded items	79.00	7.071	87.21	6.058	5.013	< .001
Negatively-worded items	75.83	9.049	84.88	6.674	4.668	< .001
Residential aspects (6 items)	29.42	3.866	32.67	2.632	3.535	.002
Discomfort and tension in accompanying old people (4 items)	16.42	3.787	19.79	3.526	3.526	.002
Difference among old people (4 items)	18.79	2.604	18.96	2.851	0.261	.797
Interpersonal relations across age generations (6 items)	26.42	2.918	29.33	3.144	3.489	.002
Dependence (4 items)	15.50	2.919	17.42	2.796	2.752	.011
Cognitive style and competency (4 items)	19.50	3.190	21.67	3.199	2.904	.008
Personal appearance and personality (4 items)	20.25	3.207	22.67	2.239	3.509	.002
Socioeconomic power (2 items)	8.54	1.668	9.58	1.692	2.566	.017

4. DISCUSSION

The present study shows that the service learning subject *Promotion of Healthy Ageing in the Community* could bring substantial improvement in attitude towards elderly among the healthcare students, as evident from the statistically significant *t*-test results. However, regarding the perceived extent of difference among old people, the change was not significant although the post-test score increased slightly. Extension of the subject to a longer period, say, two semesters, for more and deeper interactions with elderly might be needed to allow the students more time to feel and appreciate the subtle differences among elderly.

The improvement in attitude was not limited to narrow specific areas, but involved improvements in students' perception on various aspects towards elderly. In addition to academic and professional expertise, this is an important attribute that the students need to develop in order to provide quality services to elderly in the future when they become healthcare professionals. The encouraging finding suggests that a university service learning subject merging the teaching of academic and professional knowledge with the delivery of community services is a promising pedagogical model. Healthcare education providers can be more open to integrating service learning elements in their subjects to achieve deep-level learning outcomes (such as attitude towards older adults in this study) rather than sticking with traditional approaches that largely rely on class teaching and written examinations.

In line with the results of the present study, a number of previous studies have also reported on the effect of promoting a more positive attitude towards older people by engaging students in service learning. The effectiveness of service learning on enhancing students' knowledge and attitude towards older people have been reported in subjects in a range of professions involving human services [Blieszner and Artale 2001], physical therapy [Beling 2003; 2004], nursing [Burbank et al. 2006] and medicine [Shue et al. 2005]. In addition to fostering a positive attitude towards elderly, service learning has also been found to enhance students' knowledge about elderly [Beling 2003; 2004], as well as awareness and view towards the students' own aging in their later lives [Bringle and Kremer 1993].

As described in the reflective journals of many students, they highly appreciated and treasured the opportunity to communicate and interact with the elderly so closely and directly in our service learning subject, especially for those who did not have much

previous experience. In fact, for service learning involving elderly, one critical factor that determines the outcome and effectiveness is genuine communication. Through actually interacting and exchanging ideas, students can obtain a realistic view on the elderly, which can reduce bias and prejudice towards older adults. This makes the students more passionate and enjoyable in engaging in gerontological services, thus enhancing their service quality. Further effort has been made to take this further by the development of intergenerational service learning subjects which were enrolled by both young students and older adults awarded with scholarship [Knapp and Stubblefield 2000]. The two generations work closely in the intergenerational service learning subjects and learn about healthy ageing together, where the older age students can also share their experiences and feeling with the young university students. In the study by Knapp and Stubblefield, it was found that, benefited from the positive images of aging exhibited by the older age classmates, the young students had demonstrated increased knowledge about the process of ageing and improved perception towards elderly. In addition to engaging older adults into classes, service learning subjects with components requiring students to conduct personal interviews with elderly or making friendly visits have also been reported to be an effective means to promote student understanding of elderly [Dorfman et al. 2003; Gutheil et al. 2006]. These pedagogical approaches will be referenced for the development of new service learning subjects concerning healthy ageing in the future.

The main challenge in the service learning subject lied in bridging the gap between theories and hands-on practice. To cope with the challenge, the subject lecturers provided the students with more chances to explore and reflect on their own capacity in problem solving [Kohlbray and Daugherty 2013], while acting as facilitators to guide and encourage the student during the process. For example, the development of good communication skills with elderly is a key component of the subject. In Hong Kong, nuclear family was a common family structure after the industrialization, where many youngsters nowadays do not live with their grandparents and thus do not have much opportunity to communicate with elderly people, unlike the situations in earlier generations. Although workshops on communication skills had been provided in classroom sessions, a number of students still experienced difficulty in communicating with elderly during hands-on practice. To deal with the issue, the subject lecturers arranged elderly to share the life experience with the students while the students interviewed the elderly about their daily life. In this interactive process, students were able to gain deeper understanding on age related changes to daily life and the functional capacity of the elderly. The experience sharing consolidated the theories learned from classroom teaching through real practice. Furthermore, it helped changing students' negative impression on elderly. Most students indeed found elderly creative and easygoing albeit limitations due to the age related changes like poor vision or joint stiffness.

Besides, it was necessary to deal with practical and logistics issues in order to run the subject with the mobile clinic setting where the space is limited. Students were thus encouraged to carry out some parts of the workshops outdoor. Here, they were required to plan and coordinate thoroughly before conducting of their health talks or workshops. For example, they needed to develop a contingency plan in case of raining, e.g. identify potential shelter for the elderly and modify their original plan accordingly. Despite the time consuming preparation, the process not only encouraged the students to anticipate and accommodate changes, to be resilient, but also nurtured teamwork.

Two factors contributing to the positive results of the study were the use of interactive teaching approach and the mobile clinic setting for student placement. On the one hand,

in addition to the teaching of theories and principles, the classes also involved activities like role playing and group discussions to reinforce the theories learned. These interactive approaches encouraged active participation and facilitated self reflection. Responses from peers and subject lecturers stimulated students to think more deeply and critically (Figure 3). On the other hand, as pointed out by Rosing et al. [Rosing et al. 2010], unlike placement in hospitals or rehabilitation institutions, students receiving training in a mobile clinic focusing on health screening services for community-dwelling elderly had much more opportunities to interact with older people. During the health screening services, as well as the preparation and delivery of health talks and workshops, students could gain a better understanding of the elder's capacity, and reflect on how healthcare professionals can help in promoting healthy ageing, which in turn could cultivate students' positive attitude towards older adults.



Fig. 3. Group discussion with feedback from peers and subject lecturers.

Though the present study demonstrated some promising results in favour of the service learning pedagogy, a number of limitations could be identified. First, considering the fact that the present study was questionnaire-based, the sample size of 24 might be too small to produce replicable results. In addition, the participating students might have varied social backgrounds and different prior experience in interacting or communicating with elderly (e.g. some may have previously participated in community services or volunteer work). This could be a potential confounder affecting the evaluation of the effectiveness of the subject in changing the students' attitude towards elderly. Currently, the subject study was only offered to students in the healthcare field. It is not sure if the subject can produce the same effect on students from non-healthcare disciplines, e.g. engineering or science. Future studies can be conducted to explore these issues with a larger scale, to seek for more generalizable implications regarding the service learning approach in university-level education.

5. CONCLUSION

In conclusion, our service learning subject which integrates the teaching of academic knowledge and practical skills with the delivery of community services on person-to-person basis was found to be an effective means in promoting a positive view towards older people among healthcare students. The exposure provided by the experiential learning is believed to offer the students a different perspective about the subject matter through actual practice and active involvement, which are helpful to render a better

overall picture to clear their misunderstanding, bias, and misbelief. Communication with clients is a critical element in the profession of health care, where person-to-person contacts are frequent and essential. Service learning offers a new option for healthcare education providers to expose students to the real and practical situations, rather than merely achieving superficial understanding from textbooks.

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A Model of Service Learning Internship at Hoa Sen University: Teaching English for Disadvantaged Children

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ABSTRACT

Although Service Learning has been developed in many countries, it is one of the newest concepts in Vietnam, especially with Vietnamese university students. Thanks to the success of a small project carried out by a group of English- majored students who taught English for orphans voluntarily, the Faculty of Languages and Cultural Studies of Hoa Sen University has raised students' awareness of serving the community and involved them in another bigger project. In this project, thirty students organize educational activities for disadvantaged children by using their own knowledge and skills, expand their strong characteristics and soft skills, and build up meaningful partnerships with the community. This article provides a set of project activities for the five steps of Service Learning: investigation, planning and preparation, implementing the service activities, reflection and demonstration/ celebration. Hopefully this project will give inspiration to other educators so that diverse Service Learning Programs will soon be implemented.

Key words: Service Learning (SL), Service Learning internship, disadvantaged children

INTRODUCTION

It goes without saying that there have been many attempts to expand service learning activities all over the world. Service Learning (SL) has been carried out not only in developed countries such as the United States, Great Britain, Germany, Switzerland, other European countries, Singapore, China - Hongkong but also in developing countries in Africa and India.

Service Learning has been developed through ages because it has been considered as a pedagogical practice; thus "Service Learning is a credit-bearing, educational, experience in which students participate in an organized service activity that meets identified community needs and reflects on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline and an enhanced sense of civic responsibility." (Bringle & Hatcher, 1995).

Boyer (1994), moreover, wants to highlight the mission of higher education in which students are educated to become responsible citizens rather than to only pursue a career. Eventually, Service Learning is an in-time methodology of teaching in which universities can use their available resources such as students, faculty, staff, and assets like libraries, technology to serve the communities and contribute to the culture of the community once they have identified the community need of education. Therefore it is the vision and mission that each university has set to make learning at a university a meaningful environment where theories are connected to practice; thoughts are expressed through actions (Saltmarsh, 1996).

Having understood the prosperous meaning of Service Learning in higher education, Hoa Sen University has encouraged and supported both faculties and students to participate in various kinds of Service Learning activities. To combine academic development with civic and social responsibility, the Faculty of Languages and Cultural Studies at Hoa Sen University has set up a Service Learning project.

A MODEL OF THE SERVICE LEARNING INTERNSHIP AT HOA SEN UNIVERSITY

It can be obviously seen that it takes at least three to four years for English learners to attain proficiency (Hakuta, 2000). Therefore the project team (including the writers and Dr. Nguyen Chi Duy Khuong, their colleague) have to take this pivotal fact into consideration when investigating,

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writing the proposal, and developing a long-term and practical community service project to ensure students' commitment in the process of serving the community and gaining knowledge.

This project, used as the Accumulated Work Internship for freshmen and sophomores, aims to give students opportunities to apply their acquired knowledge to teaching English for the disadvantaged children in the community. In this project, thirty English-majored freshmen and sophomores, going to four communities, teach English for disadvantaged children for 40 hours and organize at least 4 educational activities for them from August to September of 2014. The students are trained in the basics of Service Learning, service safety guide, teaching and communicating skills before they serve the disadvantaged children. Each of the three project teachers works as students' instructor and supervisor who counsels the students as well as monitors them serving the community. During the service phase, the students keep a journal in which they note down what they and the children have done and then they reflect what they have learned, how they have dealt with problems, how the children's attitude and knowledge have developed, etc... in a report as well as present the report in front of the Academic Board to achieve academic credits for their Accumulated Work Internship. Students also celebrate their service by letting other students or the public in general know what they have done, discuss their ideas for the next service-learning experience and promote future services.

Built on the cycle of Service Learning, this project is carried out through these five steps:

- Investigation
- Planning and Preparation
- Implementing the Service Activity
- Reflection
- Demonstration/ Celebration

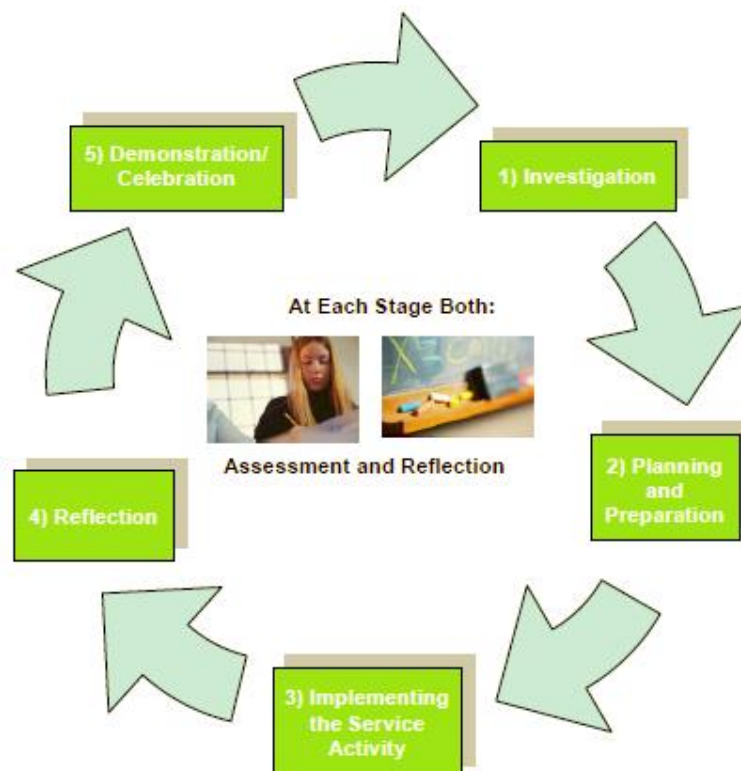


Figure 1: Service Cycle: Core Component in Action adapted from Carney, Sandoe & Associate Blog

Investigation

In the project proposal, planned from January 2014 to April 2014, Hoa Sen university students (many of whom having been involved in short-term, non-academic social and voluntary activities, helping other newcomers or disadvantaged people) were interviewed informally, and they showed their interest in this new project: applying their knowledge (English and other skills) to real environment, helping people and learning from it. A lot of research of Service Learning was done

and with the help of the Internet, some places for disadvantaged children were selected and visited. After the communities' need was identified, four open houses for disadvantaged children, ranging from 6 to 15 years old, agreed to collaborate with the English Department's lecturers and students on the project.

Planning and Preparation for Service Learning Project

The project was approved by the University Management Board in early May. A lot of paper was composed for this project to run smoothly. The more well-planned the project is, the more effectively the students work and the more benefits the students, the communities and the University receive.

No	Forms	Content
1	Service Learning (SL) Project	An overview of the project: Objectives, Outcomes, The communities' information, How the project is structured and organized, the hours students commit to their service learning placements.
2	SL Assessment Guideline for the students.	The assessment is made up of Supervisor's Assessment, Written Report and Oral Presentation. From this guideline, students know what to do to perform well and get good academic credits for their Accumulated Internship.
3	SL Application Form	Project applicants provide their profile and their order of workplace priorities.
4	SL Interview Question List	This interview helps the project team to identify students' willingness and competence to serve the community.
5	SL Estimated Expenditure	A SL budget is planned for textbooks, workbooks for both students and the disadvantaged children and teacher books for students.
6	SL Supervisor Assessment Form	Students are assessed on their learning and service manners.
7	SL Assessment Form for Student's Report	Student's report includes Introduction, Community Profile and Working Environment, Work Description, Reflection, Recommendations, and Conclusion. Student's Journal and three samples of their lesson plans are also included in this Report.
8	SL Assessment Form for Student's Oral Presentation	This presentation assessment is made up of Preparation, Performance and Questions' Reply.
9	Observation Form	This form is for students to use when they observe two classes and learn from the way teachers handle the class.
10	Demo Evaluation Forms (for the Instructor students' peers)	When a student has given a lesson demo, his peers and the Instructor give feedback based on this form.
11	Lesson Plan	This form helps students to be attached to a lesson procedure and prepare well for their service. Three plans are required to include in student's report.
12	School- Student-Community Agreement.	This agreement mentions the responsibility of the students, the communities and the university (represented by the Instructors).
13	Community Report	The manager of the community fills in this form monthly to let the university know about the progress of the project.

Figure 2: Required forms for Service Learning project

In the third week of May, the project was introduced to English-majored freshmen and sophomores and applicants were interviewed three weeks later.

From late June to late July of 2014, the students participated in these activities to prepare for their future service.

No	Name of Activities	Content
1	Two three-hour sessions of the basics of Service Learning	Students are involved in problem-solving activities. These game-like activities help them to analyze the underlying problems and recognize the integration of service and learning.
2	One three-hour session of Student Safety Guide	Working manners, how to communicate by email or phone, how to limit the possible risks while working and how to protect the children as well as the students themselves are highlighted.
3	Three three-hour sessions of English Language Teaching	Students learn educational psychology, how to plan a lesson, the procedure of a lesson, how to perform it effectively and how to motivate the children to learn.
4	Two sessions of classroom observation	Students are sent to real general English classes in the English Zone of Hoa Sen University to observe and reflect what they have seen and heard. (English Zone is for non-English-majored students to learn English.)
5	Two sessions of students' lesson demonstration	In this phase, students will demonstrate a 20-minute lesson and they also observe other students' demonstrations and give comments to them.

Figure 3: Activities to prepare for students' community services.

With these training sessions, students were better equipped with communicating and academic skills to serve the community.

Thirty students were divided into four groups and they had their first meeting with the disadvantaged children in four communities in late July and investigated exactly what the children in each community needed. Because of the diverse levels of the children, the students were divided into subgroups and developed specific plans to work with small groups of children in each community.

Implementing the Service Activity

The students then put their ideas into actions: go to the community and teach basic English for the children in 40 hours from August 2014 to December 2014. To give the children more fun and more benefits, the students also organize four other educational activities such as drawing contests, singing contests, flower-arranging, cooking or athletic competitions. Things are more easily said than done. The students may encounter many difficulties from teaching, from the real working place, as well as from the children. Therefore, they will get involved in real situations, be more self - confident, creative, and cooperate with students of the same group or seek advice from their instructor to solve problems and be more mature after this project.

Reflection

Students give reflection on the experiences they have had from the training sessions, real working environment and from instructors and peer discussions. There are many different ways for the students to reflect what they have seen, have learned or have done: reflect in their journal, their webpage, with their instructor or their peers, reflect in their report and their oral presentation to the Internship Academic Board.

Reflection helps students to understand the nature and the integration of Service and Learning. It is also a way for them to discuss their thoughts and feelings, the difference they have made to the children and to themselves, receive feedback, recognize their strengths, weaknesses as well as potential and therefore place experience in a larger context.

Demonstration/Celebration

In January 2015, the students finish their project and demonstrate the outcomes. Besides submitting a report and presenting it to the Internship Academic Board, they are expected to encourage future service by sharing their stories and pictures to the public and holding a Service Learning Seminar to celebrate their accomplishments with other students, teachers, communities, those who are interested and may want to continue serving or begin a new service.

ON-GOING REFLECTIONS OF THIS PROJECT

The project has been carried out for a month up to September, 2014. The instructors have made phone calls to the community managers and had the first project meeting with all the students to know about the quality of the service and other related matters.

All the campus managers are very pleased with the performance of the students. They are really patient and friendly since some children are eager to learn but have limited competence to learn a language. For instance, it takes three days for one student to teach a child to use some simple English words for greetings. Moreover, some children are not interested in learning English because they cannot use their native language fluently either. The group actively carries out small talks to each young learner to find out the best solution for them and finalize the timetable as well as adjust the learning materials to match with learners' needs. After a month, all the children are more enthusiastic and better cooperate with the students. In addition, realizing the students' willingness, patience and especially the fun of learning English, some reluctant learners are now participating in the lessons excitedly.

In the project's objectives, Hoa Sen students would inspire the children's love of English and encourage them to communicate in English naturally. However, some secondary children also learn English at school and they are required to do lots of grammar and reading exercises. They therefore do not see the importance of English listening and speaking skills and expect the students to help them with their workload at school. To partly meet these children's needs, the students have to split their lesson into two sections: 50% of time for dealing with children's workload, and the other 50% for teaching them communicative English.

Besides, the students have to deal with other objective problems. Firstly, the community rooms are not well-lighted enough for learners. Secondly, the sound from the laptops is not loud enough for groups of over 5 children. The most challenging problem is that there are not enough rooms for the students to teach at the same time, so some groups have to learn in the same place and create a lot of noise and distractions, and the children do not acquire English as efficiently as expected. Therefore, each group has to utilize the limited budget provided by the university to buy light-bulbs and speakers to support the process of teaching and learning.

Thanks to the frequent students' team work and support of the instructors, the students have overcome the very first challenges in real working conditions. Even though diverse communities may produce different unexpected problems, the whole project team are highly determined to serve the community effectively, gain more hand-on experience and succeed in completing their accumulative internship.

CONCLUSION

Helping the community by providing them educational services is not a new idea, but giving the doers a chance to reflect on what they have done has deeper value and provides positive impacts on overall life satisfaction. They become more realistic, think critically, make decisions, solve problems and have ability to work well with others.

This systematic Service Learning internship has created valuable opportunities and unforgettable experience for the community, the project instructors and 30 students who have been involved. The need of the community has been satisfied and the students have become more active and responsible to develop a life-long commitment of public service and learning. It is hoped that the success of this project will inspire other future Service Learning activities at Hoa Sen University and other universities in Vietnam.

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APPENDIX

Service Learning Project – Work Accumulated Internship Assessment

Components	Assessment Forms	Percentage
1	Supervisor's assessment Class observation (10%) Working attitude and project's promotion (10%)	20%
2	Written report Report (25%) Layout – 20 points <ul style="list-style-type: none"> - Sections (heading, numbering): 5 points - Font size, line space, indentation: 5 points - Spelling and Grammar: 10 points Contents – 80 points <ul style="list-style-type: none"> - Introduction: 10 points - Community and working environment: 10 points - Work description: 10 points - Reflection: 30 points - Recommendations: 10 points - Conclusion: 10 points Lesson Plans (10%) <ul style="list-style-type: none"> - Format, spelling and grammar : 30 points - Contents : 70 points Intern's Diary (5%) <ul style="list-style-type: none"> - Format, spelling and grammar : 30 points - Contents: 70 points 	40%
3	Oral presentation <ul style="list-style-type: none"> - Preparing: 20 points - Presenting: 50 points - Dealing with questions: 30 points 	40%

Service-Learning in English Language Education

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ABSTRACT

This paper focuses on the use of service-learning with English Language Learners. Presenting snapshots of service-learning programs for English Language Learners around the world, many of which position the students as service providers rather than recipients of service, the author highlights key characteristics to successful programs. The paper will be of interest to both service-learning program administrators and language teachers.

Key Words: Service-Learning, Teacher Education, English Language Learners

1. INTRODUCTION

In 1967 Robert Sigmon and William Ramsey coined the term *service learning* to describe a project in East Tennessee with Oak Ridge Associated Universities that linked students and faculty with external organizations. As the term and practices associated with it spread over the next two decades, practitioners and scholars struggled to define it. Various terms used for service learning include *civic engagement*, *community literacy*, *fieldworking*, *public scholarship*, *global citizenship*, and *community-based research*. Many of these terms are overlapping, but some have subtle or substantive differences. Nevertheless, consensus is emerging among scholars and practitioners on a recent definition of service-learning as a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.

Equally important, in the past two decades, service-learning has gone international: International service-learning provides unique learning opportunities that are not afforded during domestic experiences, which includes use of a foreign language and cross-cultural experiences that transcend typical tourism.

Service-learning provides authentic, socially embedded contexts for language teaching and learning. The influential *Standards for Foreign Language Learning* (2006) includes as one of its five goals the need for second language (L2) students to participate in multilingual communities at home and around the world. As Byrnes (2011) notes in her review of the shift towards community-based pedagogies in L2 teaching and learning, “The point is this: Language learning is no longer to be primarily of and in the classroom alone but of, with, and for ‘the community’” (p. 291).

2. LITERATURE REVIEW

The literature on service-learning in TESOL has not only increased our collective understanding of engaged teaching and learning in diverse settings, but also demonstrated increased theoretical maturity by systematically applying empirical methods to examine a range of assorted research phenomenon. Collectively, the research to date indicates that service-learning gives English Language Learners (ELLs) insight on U.S. culture, provides authentic speaking and listening situations, enhances literacy skills, and has a positive effect on retention (e.g., Askildson, Kelly, & Mick, 2013; Bippus, 2011; Hamstra, 2010; Whittig & Hale, 2007; Wurr, 2002). When incorporated into TESOL teacher education programs, service-learning enhances pre-service

teachers' understanding of ELLs, language learning theories and practices, and the communities in which they serve.

2.1 Service-Learning in Teacher Education

Teacher education has always been well represented in the service-learning literature. Typically, university pre-service teachers tutor K-12 and adult ELLs (Hutchinson, 2011; Miller & Gonzalez, 2009; Moore, 2013). In doing so, pre-service teachers gain experience with ELLs, a population many fear due to their lack of TESOL knowledge. For example, Jesse Moore's (2013) study charts a shift in TESOL students' perceptions of English language learners as the TESOL students move from identifying ELLs as an "other" with whom they would have "encounters" in the discrete spaces of ESL classrooms to seeing ELLs as potential students in their future content classes. With this familiarity came a sense of advocacy; as one student notes, "Because of the service-learning aspect, I believe I will not only be a better and more aware teacher and citizen, but a stronger advocate for ELLs!" (p. 563).

Integrating service-learning into pre-service education courses tends to have a strong impact on the career choices of Education majors. As far back as the 1980s, students were telling researchers at Portland State University that participating in service-learning projects in their Education courses confirmed or challenged their decision to be teachers as they learned first-hand what it means to interact with the public on a daily basis (B. Holland, personal communication, April 14, 2011). This ultimately led the researchers to devote an entire section of the student learning outcomes survey they developed to probing the impact of service-learning on career development (Driscoll, Holland, Gelmon, & Kerrigan, 1996; Gelmon, Holland, Driscoll, Spring, & Kerrigan, 2001). More recently, Miller and Gonzalez (2009) investigated the impact of participating in domestic or international service-learning (ISL) on pre-service teachers' career commitment, understanding of ELL issues, and knowledge of local community. They found positive outcomes for both groups on all dimensions, but slightly stronger ("Extremely positive" rather than "Positive") outcomes for ISL participants, who also noted an increased interest in working with ELLs in the future. "[R]esults indicated larger gain scores regarding interest in working with ELLs for international than domestic service learning participants. In this context, the international service experience appeared to have an enhancement, rather than questioning, effect on participant attitudes" (Miller & Gonzalez, 2009, p.6).

2.2 Service-Learning at Two-Year Colleges

At the community college level, ELLs provide needed services to non-profit organizations while learning about language and culture (Bippus, 2011; Seltzer, 1998; Steinke, 2009). Sharon Bippus' (2011) dissertation presents a multiple-case study of six adult ESOL students who participated as service providers in a semester-long community college ESOL course. She notes, ELL students "want to be active participants in their communities but feel that their language skills prevent them from doing so. ... The students, many of whom held professional titles such as doctor, engineer, architect, and journalist, in their home countries confirm this belief" (p. 4). The results from Bippus' study mirror anecdotal evidence provided by others. Whittig and Hale (2007) describe this as having the "confidence to contribute."

Students gained communicative competence while developing confidence in themselves. Although the participants were nervous about working in the community initially, they overcame their anxiety by using various strategies. They realized they do have the ability to

communicate successfully with English speakers in the ‘real world,’ and have valuable skills that they can offer the community. Additional benefits to the students included increasing their knowledge of American culture and history, developing a higher level of motivation, and forming connections to target community members. (Bippus, 2011, pp. iii-iv)

The photos shown here come from ESL classes Mollie Steinke has been teaching at Laramie County Community College for four years now (M. H. Steinke, personal communication, October 5, 2012).



In the first picture, a student from Kenya reads to 2nd graders at St. Laurence School. The smile on his face shows that he is enjoying reading a folktale from his country to the students.

In the next picture, students from Nepal, South Korea, and Saudi Arabia share stories and writing with residents at the Laramie Care Center and learn about nuclear families in America and the challenges they often face in providing adequate eldercare.



The last picture shows two students from South Korea and Saudi Arabia relaxing in pristine wilderness after cleaning trash at Curt Gowdy State Park. Think about the lessons these students learn about the role wilderness and open spaces play in the American psyche as they spend the day restoring the natural beauty to a park in the shadows of Yellowstone National Park. These are lessons and memories a textbook cannot adequately capture.

2.3 International Service-Learning

International service-learning (ISL) and study abroad programs that include service components are among the fastest growing areas in service-learning today. These programs include American students volunteering in foreign countries as part of an educational program, international students volunteering in the United States while participating in study abroad programs, and English as a Foreign Language students traveling to other foreign countries to serve and learn while using English as a global language to communicate in multilingual settings.

The first program described here involves international students in service-learning projects in a study abroad program in the United States. The University of Idaho's Central American Youth Ambassador (CAYA) program is one of several educational exchange programs sponsored by the U.S. Department of State to bring aspiring youth leaders from around the world to study in America while participating in civic engagement and leadership programs. The goal of these programs is to create change agents who will have a positive impact on their communities while also fostering positive relations with future foreign leaders. The CAYA program at the University of Idaho included 18 Central American youth in two separate year-long programs of study in Idaho. The first six months of the program was devoted to intensive English language lessons for the students at a neighboring college while living with American families in the community.

The second half of the students' year studying abroad was devoted to specialized training in social entrepreneurship, leadership, and civic engagement. Custom university classes and community-based field experiences focused on sustainable agricultural practices since the University and the students' hometowns are in agrarian settings. For example, one course taught by an education graduate focused on climate change and environmental systems. Students researched the topic online, attended guest lectures by university and community experts, and volunteered on a local farm that promotes sustainable agriculture. The students also visited local nurseries and community gardens to better understand sustainable agriculture supply chains, and volunteered with the largest environmental non-profit in the area, The Palouse-Clearwater Environmental Institute, helping with tree planting and wetland restoration projects. In the summer, CAYA students assisted with lessons at the University of Idaho's McCall Outdoor Science School (MOSS), which provides hands-on environmental science lessons to thousands of K-12 students across the state every year. Most MOSS teachers are AmeriCorps members and graduate students. These AmeriCorps members complete graduate coursework in education and/or environmental sustainability while volunteering full-time in summer and part time during school year. CAYA students also participated in a variety of cultural events, including serving as guest DJs on a local radio station where they mixed music with historical and cultural essays on their hometowns. They also performed traditional dances at local schools and civic organizations. In all, the two cohorts of students completed a combined total of 5,680 hours of community service over the two years in which the program operated.

James Perren (2007) provides an excellent description of an ISL project in the Philippines. Students and staff from American and Japanese universities worked with other international volunteers for Habitat for Humanity and local citizens to build affordable housing. Perren notes how the multilingual setting encouraged intercultural communication across all modalities. English, Japanese, Tagalog, and other languages were used and mixed by speakers of varying proficiency for different purposes. As Auerbach (2002) notes in *Community Partnerships*, language education often becomes peripheral to other community-defined goals in situations like this (p. 3).

A final case study to note involves English-as-a-Foreign-Language students in Vietnam who volunteer at local schools and community organizations. The project started when I was serving as a Fulbright Scholar at the university. I was asked to teach a lesson on American Literature, which I know nothing about, and so suggested a lesson on folklore instead. We studied many different Cinderella stories, including one from Vietnam called Tam and Can, and compared how the characters, plot, setting, and other literary devices varied across cultures and time. Inherent to most Cinderella stories is the idea of poor downtrodden individuals escaping their life of misery with the help of a wealthy benefactor.

When implementing service-learning overseas, it is useful to connect the methodology to local legends, beliefs, and practices. Therefore, as an extension activity, I challenged students to consider ways “to help others in your community.” The students responded with many examples of philanthropy in Vietnamese folklore, philosophy, and history. One popular story describes the love between the people in a country. Metaphor is used to explain that just as different types of pumpkin raised on the same vine share all things, so too must humans share and love each other (Greces, McCord, Nguyen, & Wurr, 2009). Pictures of various military leaders and conquests were used to illustrate “the long lasting fighting for the liberty.” At first I was a little uneasy about this example, but if one considers how Vietnam has suffered one foreign occupation after another for much of its history, and considers the extensive civil service projects the military performs annually as part of the “Green Summer” campaigns with Youth Communist Party members across the country, it makes more sense. Another traditional saying was illustrated with a picture showing new leaves covering older ones so they can survive together. Another picture of a younger Red Crescent volunteer helping the elderly woman completed the analogy.

The students at the university brainstormed ways they could make a difference in the community, and decided to form two groups that would lead projects at a local orphanage, SOS Children’s Village HaiPhong. One group made crafts and raised money for other gifts to give the children as prizes in traditional games they led as part of the national holiday, Children’s Day. Over 120 students, faculty, and staff from the university participated in this event, which served as an icebreaker and built trust between the university and orphanage that allowed for the successful implementation of the second group’s project: Teaching English to K-12 students at the orphanage school every Saturday and Sunday. This continues today, and has spread to other universities and non-profit organizations. There is a range of sites and projects the students are involved in: tutoring children in a local fishing village, celebrating Christmas with residents at an HIV Hospice, and building low-income housing in a rural village.

Thus, what began as a simple unit on folklore and literature morphed into a limited partnership between a single university and community partner and eventually expanded to a collaborative venture with all universities in the city working in service with the community partner under the umbrella group, Tinh Than SOS. The group continues to use traditional arts and literature in the form of folklore, fables, and song to teach the importance of helping others and working for the common good. (Dubinsky, Welch, & Wurr, 2012, p. 177)

3. DISCUSSION

What can we learn from these examples? Some key characteristics of successful programs become clear. Firstly, provide structured opportunities for reflection. This is central to all effective service-learning programs, and is often said to be symbolically represented by the hyphen linking service to learning in “service-learning.” Next, value all stakeholders in partnership. In TESOL, this suggests valuing and inviting the use of learners’ first languages, as well as involving community partners in program and course planning (e.g., curriculum content, schedule). Thirdly, clearly define roles and expected outcomes. Success demands well-defined partnerships: When roles are clear and each partner contributes from its unique strengths, a multi-sector collaboration can reap dramatic results. Fourthly, encourage and honor local ownership, which is key to replication and sustainability. This point and the last, to incorporate culturally familiar content and genres, are both evident in the case study Ngyuen (2009) and I describe in Vietnam (Dubinsky et al., 2012). Student leaders drive the school clubs, which recruit volunteers

to help on various projects, and the use of Vietnamese folklore, fables, and song embed these projects in local history, culture, and values.

To conclude, I share Auerbach's (2002) coda on the collection of case studies on service-learning in TESOL that she edited:

What these strategies have in common is that they value the wisdom, knowledge, cultural practices, and creativity of community members. They focus on meaningful interactions and on supporting participants in addressing issues that they themselves have identified. [Language] acquisition flourishes through exchange, dialogue, and meaningful usage rather than attention to isolated skills." (p. 10)

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Session 5

Internationalization

International Service Learning: Benefits and Whose Perspectives?

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ABSTRACT

In recent years International Service Learning (ISL) has been embraced by many institutions of higher education around the world. While the benefits of International Service Learning for students are well established in the literature, more research can be explored from the standpoint of the local community in the host country. This paper aims to examine how benefits are perceived and conceptualized from both sides of the program, the provider's side as well as the recipient's or the host country's perspectives. In doing so, the notion of "*perception of benefits*" is closely examined from a case study of a U.S.-based service-focused study abroad program with service components in Vietnam. The study reveals that how benefits are perceived can be influenced by historical events as well as social, cultural, and personal backgrounds, which can significantly shape the ways in which different actors perceive their own benefits and those of others. Understanding how benefits are manifested in ISL is important in the planning and implementation processes of all ISL programs.

Key Words: International Service Learning, benefits, community perspectives, comparative perspectives.

1. INTRODUCTION

In recent years, Service-Learning (SL) has become a popular pedagogical practice in higher education. Academic Service Learning is a concept of integrating community service with learning as a form of experiential education and as a way of engaging with and giving back to the community. Hailed as a "postmodern pedagogy" (Butin, 2010) and seen as a shift in educational paradigms, many institutions have embraced service-learning as both pedagogy and teaching concept in their curricula. Campus Compact, the national higher education association that promotes campus-based community engagement, reports that there are more than 1,100 colleges and universities in the U.S. that have implemented some form of campus engagement or service-learning (Campus Compact, 2014). While educators adopt service-learning as an effective instructional tool, many administrators recognize the potential role of service-learning in civic engagement, which has been given top priority in many institutions of higher education in many nations around the world. The recent course roster at Cornell University shows that there are more than 65 courses with service-learning components being offered in an array of disciplines, from agriculture economics and environmentally sustainable development to history, education, horticulture and global health and nutrition.

Service-learning has also emerged in an international context in the form of "International Service Learning" (ISL). In the age of increasingly global interdependence, seeking to integrate academic instruction with community service in the global sphere, many institutions of higher education have begun to offer ISL programs and courses with community-based service or service-focused components in countries around the world. Described as an educational domain that intersects Service Learning, Study Abroad, and International Education, ISL provides various dimensions that are absent in international education or traditional study abroad programs (Bringle

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& Hatcher, 2011). International Service Learning is an interdisciplinary study abroad program that provides university students experiential education opportunities to engage learning with service that addresses the needs of a poor community (often in a developing country) while aiming to enhance their cross-cultural understanding and developing their personal growth. Some of these programs are full semester credit-based study abroad programs with community service focused as a central part of the curriculum. Other programs are short-term faculty-led trips in foreign countries with a goal to provide students opportunities to carry out services in underserved foreign communities so that they might experience first-hand the problems that affect these communities while engaging experiential learning in the process (Miller & Fernández, 2007; Florman et. al, 2009). These programs are all considered as International Service Learning.

As service-learning – domestic and international – is becoming more institutionalized in higher education, numerous research projects have been conducted on this new instructional practice. They range from student learning outcomes to curriculum development for faculty and the role of institutional engagement from a university towards the community (Jacoby, 1996; Jacoby & Brown, 2009). The majority of research has been dedicated to student learning outcomes (Parker & Dautoff, 2007; Cruz & Giles, 2000; Worrall, 2007). Many studies have indicated that SL benefits students, from providing students cross-cultural immersion, transforming their learning intellectually and morally (Erickson, 2009), enhancing their personal growth and shaping their sense of civic duty to become more responsible citizens (Brown 2011; Bringle et al., 2008; Kiely, 2004; Parker & Dautoff, 2007). International service learners also gain global competence and pluralistic worldview as they become more responsible global citizens (Brown, 2011, Bringle, 2008; Skelly, 2009). Because service-learning has shown consistently positive benefits for the students (Eyler & Giles, 1999; Bringle & Hatch, 2011), it is now considered to have the potential to be one of the most effective and powerful pedagogical practices in higher education (Clayton, Bringle & Hatch, 2013).

2. THE PERCEPTION OF BENEFIT IN INTERNATIONAL SERVICE LEARNING

The appealing factor of service-learning lies in the claim that it aims to benefit all parties involved. It expands the role and validates the civic engagement and social responsibilities of higher education. It involves faculty expertise and encourages faculty participation in developing new ways of teaching and doing research. Most importantly, it provides students opportunities to connect classroom instruction with experiential learning while enhancing the students' senses of civic duty and good citizenship. And finally, it addresses the communities' needs.

What does benefit mean in the context of International/Service Learning? What are the beneficial factors, and how are they measured? For whom are the benefits intended, and who are the actual beneficiaries? In broadest terms, benefit is defined as something that enhances or produces favorable results. Benefit is often associated with an advantage, an enhancement or an improvement – something that is helpful and progressive, something is acquired or gained that results in positive outcomes. Benefit can be acquired materially or financially, for example, a payment or a bonus from an employment. Benefit can also be manifested intellectually, spiritually or physically – a positive impact emotionally, a gain in knowledge, or a boost in one's health, for example, vitamins or certain types of food that are good for our physical (and emotional) being. Some benefits are more visible and instantaneous such as gaining a skill or acquiring a new language. Some benefits are latent, whereby the benefactor acquires the gain later in a course or a program or even later in life. Benefits can be short-term or long-term. For example, some material gains such as monetary or commodity goods can be short-

term because benefit may be depleted when the supplies run out. On the other hand, long-term benefit is a type of benefit that can prolong an effect on a person or a group of people (a community) physically, emotionally or spiritually. Some benefits are intended whereas some are not. The “unintended benefit” is something that was not planned during the process of designing or implementation of a program or an activity, yet it ended up having a favorable outcome. Likewise, the “intended benefit” may not necessarily produce a result as one has envisioned.

While it is customary to think that all benefits must have a tangible value, monetary or some other value, not all benefits are inherent. What we benefit may just be a “*perception of benefit*.” The perception of benefit is the “assumed benefit,” a notion of benefit being perceived by the other or by the self. The perception of what benefit is from one individual may be similar or different from what another person perceives it to be, and likewise. The perception may be shaped by, constructed of, or subjected to various elements such as our own prejudices stemmed from our cultural background, social upbringing or political environment. In other words, benefits may be defined or perceived differently depending on the actor and the contexts. The perception of benefit may be socially and culturally shaped or even politically motivated, especially in International Service Learning arena, where the cultural, socio-economic and socio-political dimensions can be vastly different from one country to another, especially from the country of the home-based institution to that of the host country.

How are benefits manifested and perceived in International Service Learning? Specifically, how are benefits framed and viewed on each side of these dichotomous make-ups: service/learning; students/community; home-based country /host country? How does each entity view its own benefits and view the others? A student may perceive that he or she has benefited from a program or a service, whereas others might perceive them differently and mean differently to them. How does the community see their benefits? The perspectives of the host community may or may not see themselves gaining from an ISL program and may or may not be the same as how the students or the program administrator perceive their benefits. Examining the viewpoints of both sides is important not only to understanding how one side views their own benefits but how they also perceive benefits acquired from the other side. These perceptions are valuable because they offer an insight into whether or not the ISL program’s goals are aligned to meet the needs of the communities in the host country.

3. THE CASE STUDY OF SUNY-BROCKPORT VIETNAM PROGRAM

This paper aims to address various conceptual and practical issues of International Service Learning. In particular, how benefits are manifested and perceived in International Service Learning from various actors of the program. For example, how do students, administrators, and the host communities perceive benefits? How are they different or similar to one another especially when taking into consideration the differences in cultural or socio-economic backgrounds? In other words, are the perceptions of benefits culturally, historically or socially shaped or constructed?

Using the College of Brockport: State University of New York (SUNY) - Brockport (henceforth SUNY-Brockport) Vietnam Program as a specific case study, my research project explores the notion of benefits and how benefits are being acquired or perceived by both sides of the program. This close-up case study offers to examine benefits not only from the perspectives of the provider’s side, a U.S.-based institution where the program is administered, but also from the perspectives of the people in the local communities in Vietnam, the host country of the program.

3.1. SUNY-Brockport Vietnam Program

The SUNY-Brockport Vietnam program is operated through the International Education office at the College of Brockport, New York. Established in 2000, it was the first service-focused study abroad program at a U.S. institution to be held in post-War communist Vietnam. In 2013 the program implemented two additional shorter 4-week terms in addition to three of their regular semester-term sessions. While in Danang, a city in the central coastal Vietnam, the students are required to take five courses: Vietnamese history, Vietnamese politics, Vietnamese culture, Vietnamese language, and Community Service. In addition to the weekly community service seminar course, the students are required to provide service at various sites in the local community for about 12-15 hours a week.

The community services are organized by three main stakeholders: (1) SUNY-Brockport and its host country partner, (2) Danang Union of Friendship Organizations (DAFO), a government engine that oversees all non-political organizations in Danang, and (3) the Danang/QuangNam Fund, an NGO established by the same faculty member who established the SUNY-Brockport Vietnam program. In general, the students visit the service sites once or twice a week, spending about two hours each time. Their activities are varied depending on needs of the communities and funding availability of the Danang/ Quang Nam NGO.

3.2. Sites and services

1. *Loving House Nursing Home*. At this nursing home for homeless elderly, the students provide personal care (painting nails or combing hair) and work in the garden.
2. *Agent Orange Daycare Group Home*. Service-learners assist disabled children with arts and crafts projects and entertain them with various outdoor activities.
3. *Hoa Vang District Home Visits*. Students make weekly visits to Hoa Vang, the poorest district in Danang. They interact with disabled children and their families to provide direct aid.
4. *Danang City Welfare Center*. This is a government-operated center for the homeless and disabled people in Danang. The students visit this center about four times per semester. While there they help serving food to the residents.
5. *Teaching English*. Students take active role in providing English lessons to (mostly) college-age English learners.

4. RESEARCH METHODS

The study was conducted in the U.S. and Vietnam over a span of two years. My field research in Danang, Vietnam took place from 2012 to the early part of 2013. While in Danang, I stayed at the program house with the students (the Spring 2013 cohort); I had all my meals with them and accompanied them to all of the service sites. I conducted interviews with all of them in several stages and at various lengths. I also interviewed the program staff, the faculty member who led the program (who is also the executive director of the Danang/ Quang Nam NGO), the community members, and local administrative staff at the service sites.

The primary method of inquiry employed was qualitative, which included site observations, semi-structured and in-depth interviews and document review. In addition, I also employed an online survey to gather information from past student participants. The data that informed the results from the online survey are also mainly qualitative.

4.1. Units of analysis

The units of analysis are summarized in Table 1.

Table 1. Units of analysis from both sides of the ISL program

SUNY-Brockport VN Program	Communities/ Service Sites in Vietnam
<ul style="list-style-type: none"> -Students from Spring 2013 (n =3) -Other past participants (n=16) -Local administrative staff (2) -Program faculty (Danang/Quang Nam NGO Director) 	<i>Sites visited and people interviewed:</i> <ul style="list-style-type: none"> -Loving House Nursing Home -Agent Orange Daycare Group Home -Hoa Vang District Home Visits -English Teaching -DAFO (local host country partner) -Local program staff

4.2. Research inquiries

To approach the question of the “perception of benefit,” the students were asked to explain the nature of their work at each service site, how they perceived the service they rendered, whether they liked it or not, and if there were any challenges and how they went about finding solutions to them. I wanted to know whether the students thought the services they provided a) were useful to the community and b) if and how the experience had impacted or benefited them personally. For this paper, the inquiries can be summarized into these questions:

Q1. What do/did you do at these sites? Do you think that these communities benefited from your work?

Q2. How did you benefit from your work?

As for the communities, while I was able to talk to local administrators and staff, I was not able to interview people with physical disabilities or mental illness. Some elderly people were too fragile to sit through lengthy interviews. The data that informed my results were heavily supplemented by site observations. My inquiry at the service sites can be summed up into one general question:

Q. Do you think the services have been beneficial for the people in your community?

5. FINDINGS

5.1. From the Students

In general, most students felt that they benefited greatly from the program. They also thought that services the students provided benefited the local communities. However, benefits were most evident when they or the community they served gained something tangible, something that can be measured by some kind of units, for example, resources such as financial assistance or the amount of time spent. Most students were very happy at the Agent Orange Daycare Group Home for disabled children because they were able to offer some service and felt being appreciated by the children. A student from the Spring 2013 group recalled:

“The kids loved when we came in general. We did not even have to be playing a game for them to be happy. They liked the human contact and extra attention.”

Another student echoed the sentiment:

“Yes, they (the children) benefit because they are very simple. They just want to have a good time. I think they enjoy the attention given by us. I think (having) new attention, new excitement, new stimulation is important for all children.”

However, many students felt that the work they provided at the Loving House Nursing home was not beneficial and they thought their time was not well spent there. Some students did not think that there was not a lot of value in painting nails for the elderly women. One student noted:

“I feel that at the loving house we could have utilized our time better, painting nails was of little advantage to the nuns.”

In general, young people tend to feel more useful if they are able to participate in laborious tasks such as delivering food supplies or doing manual labor around the sites. When benefit is manifested in forms of direct assistance, it is apparent.

“During the home visits we brought monetary and food gifts to the families and were able to hear the different stories of what the children and families had been through in living in rural communities affected by Agent Orange.”

The findings also reveal that ISL experience can greatly impact the students’ social and civic consciousness, especially when they are in an environment where there is a large gap of economic disparity from that of their own. This was most evident with the weekly home visits in the Hoa Vang district. Each week the students would visit two to three families in Hoa Vang, one of the poorest districts in Danang. This district has exceptionally high number of families with children born with severe physical conditions. These children demand a lot of resources and energy from members of the household to care for them. The main goal for this service site is to deliver direct aids to the families in need. The aids were in some forms of money and small quantity of staple goods, funded by the Danang/Quang Nam NGO. Before leaving the family, the resident director would take out an envelope to give to one of the students to pass on to the family. Even though there was no “real” service done, this site generated the most thoughtful and poignant comments from these young service-learners. As the students talked extensively of their visits, illuminating the details of some particular families or the condition of the children that they had met, they also talked about having a better understanding of the flights of humanity and their appreciation for having the opportunity to connect with that realization. The benefits that they acquired may seem less visible at first but turned out to be long lasting. They wrote:

“The home visits were very moving. You have no idea going into it the perspective the Vietnamese has towards the effects of Agent Orange on their families, and their testimonials take you by surprise. Unlike what I am used to, they are not angry or blame anyone for what happened to their families, but accept this as fate, and you can’t help but feel so much empathy for them. You have a better idea on how family have their lives changed due to this, and see what sacrifices everyone else makes for the

members of their family. This was very sad to see, but inspiring in regards to strength and spirituality.”

Teaching English is the only service where benefits were perceived as “mutual”. The majority of the American students felt that the young Vietnamese English learners benefited the most because they were able to take advantage of what was offered. However, the American students also gained something in exchange. The ability to communicate and make friends with people their own age has made this service different from the others. The two groups often spend a lot of time interacting with each other outside the classroom. Many young Americans have said that they have made “lifelong friends” from this group. While benefits may not be equal, both sides feel that they “mutually” benefit from each other because there is fairness in the service rendered and received. One American student observed:

“The students in our English class benefited the most, they got a lot out of the class. We also spent the most time with this group. We also got the most out of this group insofar as they introduced us to the city of Danang.”

Another commented:

“I especially enjoyed teaching English as it allowed us to connect to peers in Vietnam of similar age groups and not only helped facilitate relationships outside of the classroom, but also provided a necessary link to compare and contrast our own experiences in life to theirs and their hopes and dreams.”

The mutuality may also stem from the fact that many of these young Vietnamese appear to be on par economically with their American counterparts. There is little or no difference in the socio-economic backgrounds between the two sides. Many young urban English learners tend to come from a better socio-economic background than other Vietnamese especially those who live in the countryside. They have smart phones or Facebook accounts and are as well versed in the language of social media as the young Americans. Benefits are perceived to be “mutual” because there is little or no difference in the gap in the value gained or displaced from both sides.

5.2. From the Host Communities

Compared to the young American service learners, what constituted as benefits for the people in the host country is not always clear. First of all, the services provided were different from one community to another, hence, it was not easy to measure or compare. Furthermore, some of the recipients such as the children at the Agent Orange Group Home or the elderly women at the nursing home were not able to express their opinions directly. Instead, their voices were often spoken through a representative, for example, a caretaker or an administrative staff member at the service site. When asked what they thought of the program, interestingly they all seemed to be similar in their views. While everyone seemed to appreciate the presence of the students in their communities or how nice these young people were (“young, fun and energetic, nice and eager to help”), the program is for the students rather than for the community. The local resident director describes her duties:

“I saw this being an opportunity to share information about Vietnam so that they understand our country and like our country more.”

I was curious to know about her perspectives on how the program has benefited the communities. She replied:

“I think Vietnam also benefits a lot. The students bring fun and joy to the children (at the AO Group Home); they bring youthfulness to the elderlies so that they feel happier and have more willingness to live. At the (Hoa Vang) home visits, the students bring the message to the families that they have not been abandoned, that ‘America has not abandoned you.’”

I asked her why she did not give the money envelope to the family directly, but gave it to an American student to pass it along instead. Again, she explained:

“It’s not the same if we (Vietnamese) gave them (the family) the envelope... It would mean a lot more if they got it from a foreigner, especially from an American. I mean an American, not a French person, or any other European person. It makes them feel that they are not forgotten, that we have not been forgotten (by the Americans).”

When I asked the local people how they perceived their benefits, their answers were strikingly similar. From the Chief nun at the Loving House Nursing Home to the director at Agent Orange Daycare Center, to the local program administrative staff members, they all placed their emphasis on the emotional factor, and essentially ignored the (tangible) “service” aspect. This suggests that to them, this is an American program and its aim is to benefit its students, and the community would sustain with or without their service or their presence. However, they all seemed to care greatly if they had not been forgotten (by the Americans).

Overall, the study reveals that both sides seem to have different perspectives on what is deemed beneficial. These perceptions seem to vary greatly depending on many factors. In general, most students felt that they have benefited from International Service Learning, regardless of what kind of service they provided or the environment they were faced with. When they engaged in a situation where there was little difference in socio-economic inequality, their benefits and those of the members in the host community were often perceived as “mutual”. While most students thought that the communities also benefited from the service they provided, they felt that the communities would benefit more if the service were more “tangible,” or manifested through some form of material or financial assistance. On the other hand, the Vietnamese community’s perception of their own benefits was along the line of an “emotional” factor. Further, this host country seems to place a great deal of interest in the past, notably the memory of the US-Vietnam War, which was apparent in how they perceived this U.S.-based ISL program and the presence of the young American students in their communities.

6. CONCLUSIONS

International Service Learning is an uncharted and complicated field. From the program planning perspective, it involves many stakeholders: higher education institutions, faculty, students on one side and the local community of the host country on the other. In addition, there are many logistical factors involved when organizing a study program in a foreign country. There are many components to be considered when designing and

planning such a course. It requires a curriculum with clear learning objectives for the students coupled with service activities that address the needs of the community. Despite it all, because ISL has the potential of being one of the most effective instructional and learning tools in higher education, the reason for organizing such a program can be summed up in one word: benefit. While International Service Learning has a potential to benefit both the students and the host communities, the perceptions of benefits can vary greatly depending on whose perspectives are being examined. Benefits can be manifested in many different forms depending on the context, the social factor or the culture that may inform how something is deemed to be beneficial or not. It is as important to distinguish different perspectives – whose perspectives – as it is to understand the socio-economic, cultural as well as personal backgrounds of these actors and the relationship between the two countries to understand how each side views benefits and values service. Understanding how benefits are perceived and conceptualized through various actors of the program is crucial in the designing, planning and implementation processes of an International Service Learning program. In other words, when it comes to assessing benefits of an International Service Learning program, it is not just a question of who or which side benefits, but also whose perspectives we have to consider.

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Examining Student Learning Outcomes from the Global Citizenship and Sustainability Community-Based Research Exchange Program

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Abstract

“Global Citizenship and Sustainability” (GCS) is an exchange program that fosters engaged research, global learning, teamwork, leadership, and civic and social responsibility for students at Cornell University (Ithaca, NY, USA) and Mahidol University (Nakon Pathom, Bangkok, Thailand). In 2011, floods devastated local communities near both universities’ campus. Students in this program conducted community-based research to better understand resident, farmer, and business owner experiences with flooding and working with local governments to build long-term community resilience and adaptation. Data on students’ learning outcome on global citizenship and programmatic impact were collected through qualitative data analysis of student journal reflections.

Keywords: global citizenship, service-learning, community-based research

Introduction

Flooding is a natural disaster that impacts people more than any other worldwide. The community need addressed by this program is that of community flood resilience and how best to select and implement adaptation strategies for the future. A resilient community has the capacity to better withstand a disaster and its social, economic, and environmental consequences. The ultimate goal of this approach is to provide insights and guidance to stakeholders to effectively address the urban flood challenges through action research and capacity building.

In this program, Cornell students worked collaboratively and cross-culturally with their “research buddies” (students at Mahidol University in Bangkok) and research mentors (community partners in Bangkok) in Thailand to conduct an applied community-based research project. These teams of Cornell and Mahidol students conduct community-based research with the intention of gaining a broader understanding of the complexities of water resource management, flooding, and broader issues of sustainability and climate change facing our world.

Many universities, including Cornell, have placed an emphasis on global education and students also desire global learning opportunities as part of their undergraduate education. Cornell University President Skorton and the Task Force on Internationalization established a goal of at least 50% of students having a substantive international experiences during their time at Cornell—up from Cornell’s current rate that is near 20% (Torres et al., 2012). The Global Citizenship and Sustainability program described here helps Cornell in achieving these desired goals by providing opportunities for curriculum-linked study abroad experiences that focus on “teaching, research, and engagement.” This paper focuses on student learning outcomes associated with the GSC student exchange program.

Service-Learning

Service-Learning is a pedagogical approach that combines meaningful community service activities with academic instruction. The pedagogy of the field began about fifty, 50 years ago, started by a group of activists and educators that were heavily involved with campus and community-based movements such as anti-war, civil rights, and others. Academics were looking for ways to enhance their work in the community and in the classroom, pedagogically, going beyond simply an experience gained. Educators challenged the students not only to volunteer in the “soup kitchens” to feed those that are hungry but also to think

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critically as to why they felt the need to volunteer in “soup kitchens,” why “soup kitchens” exist, and the broader question of why people are hungry.

The term “service” according to the early educators of the field is about community action, “...and efforts to learn from that action and connect what is learned to existing knowledge, the “learning” (Stanton, Giles and Cruz, p2). Proponents of this pedagogical approach advocate for reciprocity between the people that are receiving the service and people that are delivering the service. It is not a one or two way street as it is multiple ways due to the number of stakeholders and the complexity of our social issues. As Dr. Michele Whitham, a former faculty member in Cornell University’s former Human Ecology Field Study Program describes, “service-learning as on the enabling to empowering end of the service-social change continuum, emphasizing support for people who seek to address their own needs as opposed to a “doing for’ kind of service.” (Ibid, p. 3)

The term “learning” relies on experiential learning theories such as David Kolb’s (1984) four stage of cyclical learning and Albert Bandura’s (1977) social learning theories and self-efficacy. John Dewey was a proponent of experiential education and provided a philosophical framework for this pedagogical approach through his writing of *Experience and Education* (1938). Paulo Freire is known for his work *Pedagogy of the Oppressed* (1968), where he discussed conscientization - critical awareness and praxis - action and reflection, and other learning theories to better support, implement, challenge and understand students’ learning experience and their own process of critically analyzing their experience.

About the Global Citizenship and Sustainability (GCS) Program

The GCS program is offered by the Department of Natural Resources and Public Service Center at Cornell University in partnership with the Faculty of Environment and Resource Studies at Mahidol University and the Thailand-United States Sufficiency Education Foundation (TUSEF). At Cornell, the program sponsors and funders are the Public Service Center, the Center for Engaged Learning and Research, the Southeast Asia Program, and the Einaudi Center for International Studies, and the Cornell Institute for Food, Agriculture, and Development (CIFAD’s Student Multi-Disciplinary Applied Research Team-SMART Program). The program was designed through collaborations between the faculty Director of the program at Mahidol University and the two Cornell program Directors. Program design entailed multiple meetings over approximately one-year between the program Directors (Mahidol and Cornell), site visits to areas affected by flooding in Bangkok, meetings with potential community partners in Thailand to discuss the program and their possible involvement, and faculty seminars to better understand shared research interests. Program planning also included budgeting and grantwriting to acquire the funds needed to carry out the program (student and faculty airfare and housing, travel to study sites, meals, etc.).

The Global Citizenship and Sustainability program at Cornell University has 4 primary components:

1. **Pre-departure course** (3 credits) for Cornell students (each Fall semester) that focuses on flooding and climate change, global citizenship, cultural learning, team-building, and reflection. (Fall 2013)
2. **Winter session** community-based research project in Thailand with Mahidol students and Thai research mentors from provincial government and NGO’s. After getting to know each other, students pair up with one “research buddy” to work closely with on the research project. This helps to facilitate cross-cultural learning. Student teams also work closely with “research mentors” from provincial and village government and NGO’s. The length of the program is 4 weeks. (Winter 2014)
3. **Post-departure** course (2 credits, Spring semester) for Cornell students where students write up results of the research and prepare community product. Drafts are provided to community partners in Thailand and students continue to work with their “research buddies” from Mahidol University in Bangkok. (Spring 2014)
4. **Summer exchange** where Mahidol students from Bangkok travel to Cornell to conduct a community-based research project in New York State with Cornell

students and research mentors from local government and NGO's. The length of the program is 4 weeks. (Summer 2014)

Student Selection Process for the GCS Program

Cornell University students were selected through a rigorous application and interview process. Each applicant was required to provide academic transcripts showing grades, complete an application, and respond to four essay questions³. Upon reviewing applications students were interviewed and then selected based on academic qualifications, commitment to the program, and interest in global citizenship and sustainability. The profile of the students in the program is below (Table 1). In total, there were 9 students in the program: one Master's student, four Seniors, one Junior, and three Sophomores. They came from a variety of academic backgrounds from the Humanities such as Africana Studies to Environmental majors such as Natural Resources. There were two first generation college students in the program.

Table 1. Profile of Cornell University students in the Global Citizenship and Sustainability Program.

Class (as of fall 2013)	Major	Gender	Ethnicity
Master's	Natural Resources	Male	Caucasian
Senior	Natural Resources	Female	Caucasian
Senior	Interdisciplinary Studies, minor in City and Regional Planning	Male	Caucasian
Senior	Africana Studies and International Ag. and Rural Development	Male	Caucasian
Senior	Natural Resources	Female	Chinese-American
Junior	Biology and Society	Female	African-American
Sophomore	Chemical Engineering	Female	Singaporean
Sophomore	(Double Major) International Ag. and Rural Development and Environmental Science and Sustainability	Female	Bolivian-American
Sophomore	(Double Major) International Ag. and Rural Development and Natural Resources	Female	Caucasian

Pre-Departure Course

In the Fall 2013 course, students explored various theoretical frameworks for global citizenship as relevant to questions of ethics, privilege, power, democracy, diversity, and the environment. They applied these theories to the social dimensions of water governance in Thailand.

Community-Based Research Project in Thailand

Taking an inter-disciplinary and cross-cultural approach, students worked in pairs (Mahidol and Cornell) drawing on their combined ability to research the environmental, economic, and social aspects of water management on local communities. Students collected data through a variety of sources including government documents, in-depth interviews with community members, farmers, and business owners, interviews with government officials and resource professionals, and community meetings. The questions that students researched were driven

³ 1) Please tell us about your motivations for applying for this program. What do you hope to bring to the program? What do you hope to gain from this and how will it enhance your education?

2) Have you been on an Alternative Break, service-learning trip, or international educational experience before? If so, how have your past experience influenced your desire to become involved in this program? If not, what is important to you about this kind of educational experience?

3) Select one of your past group experiences and write about what made that group work well, and what challenges you faced as a group and how you overcame them.

4) You will be expected to enroll in a preparatory and post-trip course, in addition to the January 2014 trip and various tasks you are assigned related to organizing the trip. Are you willing to accept this time commitment?

by the needs of the local community leaders and their need to understand the impacts of the 2011 floods and how they could collectively learn from that experience to be better prepared in the future.

Post-trip class

As part of the post-departure class, Cornell students worked with their Mahidol University counterparts and community partners (research mentors) to obtain feedback on the draft community products. There were two student research teams that worked in each of two sites (Bang Luang and Mahasawad), working collaboratively with research mentors from the community. The Bang Luang team wrote an archival case study documenting the experience of this community in the 2011 floods. In collaboration with government, business owners in this area were able to protect a central business district that served as a center of relief for the community as well as allowing them to sustain their livelihood. Students documented, through interviews, the participatory process and decision-making surrounding this success story of community flood resilience. Community partners stress the importance of this case study as a way to produce a historical record of their strategy and to also help other communities learn from these strategies. The case study will help to promote this approach to community flood resilience within other areas of Thailand where this could benefit others. For the second research site, the Mahasawad Canal, students are working on a brochure that documents the successful flood mitigation strategies used by the community during the flood as well as adaptation strategies following the flood to prepare for the future. This region is a hub of agro-tourism where subsistence farmers also earn income from bringing tourists to see their farms, which include a Lotus farm, an orchid farm, a fruit orchard, and an OTOP (One Tambon, One Product) market that specializes in producing and training others to produce locally made rice crackers. This paper reports on activities through the post-departure course.

Research Methods

In order to examine learning outcomes related to global citizenship, we used qualitative research methods and employed thematic analysis (Boyatzis, 1998) of the data. Thematic analysis is a form of qualitative data analysis that sorts data into categories, allowing researchers to uncover patterns and develop themes. The questions that the research was designed to answer were: How does the GCS program impact student learning with regard to global citizenship? How does the GCS program impact student development? We collected data through five written reflection assignments that the students completed (Figure 1, Figure 2). We then thematically coded and analyzed the qualitative data (Boyatzis, 1998) resulting from the journal reflections. Each journal reflection was approximately 1-3 pages in length (12-point font with 1" margins). One of the assignments was a set of readings and a journal reflection on the topic of global citizenship (Figure 1). Cornell University students were required to complete readings and explore global citizenship topics in Fall 2013 before they travelled to Thailand in the Winter of 2014. Cornell students were also asked to re-read the global citizenship papers and complete the assignment again upon returning from the GCS program trip to Thailand in Winter 2014 (Figure 1). In the results, we present a comparison of the pre-and post global citizenship reflections using the frequency of terms students used in their assignments. We used an online software program to create a word cloud (<http://www.wordle.net>) for a visual presentation of the frequencies and calculated and analyzed the frequencies in Microsoft excel. In the Summer of 2014, Mahidol University students from Thailand travelled to Ithaca, NY for the exchange with Cornell University students. Both Cornell University and Mahidol University students completed three reflection assignments (Figure 2). The reflections were analyzed using thematic analysis and primary themes are presented in the results.

Figure 1. Pre-and-post trip assignment on Global Citizenship and Cross-Cultural Communication assignment for Cornell University students (Fall 2013 and Spring 2014).

ASSIGNMENT, Good Intentions and Global Citizens: Read the Illich paper first, followed by Zemach-Bersin and Schlabach. What is the first word that comes to mind that captures your emotional response to these articles. Do you agree with Illich? Why or why not? What do you think Schlabach and Zemach-Bersin contribute to the discussion of international service and education? Think about the motivations for why you are in this course and what you want to accomplish both for yourself and for our host community. How have these articles informed (if at all) how you will approach this learning experience? Summarize Appiah's perspective on globalization. Compare this to Illich's view. Which perspective do you agree with more? Why? Appiah suggests that it is possible to balance universal global ethics with people's freedom to make choices. From reading Revkin and McKibben, global thinking has become almost impossible without environmental thinking. What are the implications of this for what makes a person a "good global citizen"?

Pre assignment completed Sept. 2013; Post trip assignment completed March 2014

Readings

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Schlabach, G.W. 2013. Lest Best Intentions Become the Enemy of the Good.

Zemach-Bersin, T. 2008. American Students Abroad Can't Be Global Citizens.

Appiah, K.A. 2006. The Case for Contamination. *New York Times*.

Revkin, A. 2012. Beyond Rio: Pursuing Ecological Citizenship. *New York Times*.

McKibben, B. 2008. First, Step Up. *Yes Magazine*.

Figure 2. Reflection assignment questions for Cornell University and Mahidol University students, Summer 2014.

Reflection #1 (June 13, 2014)

Open reflection on experiences during the first week of the program.

Reflection #2 (June 20, 2014)

a. Reflect on the learning goals you discussed and developed as a group on Tuesday, June 10 (categories of learning goals are): researcher, teamwork, work experience, learn culture, friends, language, new Experience.

b. How is this learning experience/program helping you to reach those goals? Please describe.

c. Are there any challenges you are experiencing in meeting these learning goals? If so, which ones?

Reflection #3 (July 7, 2014)

a. How do you see yourself using or applying what you learned in this program? Personally, professionally, academically, etc.? In what ways do you think you will draw on your experiences in the program as you move forward?

b. Imagine that you were writing a letter or note to a future student in this program. What would you say to the next group of students to participate in this program? What should they expect? How can they prepare themselves? What can they look forward to? What will be challenging? We would like to use responses to this question to share anonymously between "generations" of program participants—to share knowledge and experience across program years.

c. Is there anything else that you would like add? Do you have any final reflection or thoughts about the program?

One of the students reflected on her journal before the trip discussed about her desire to work with others, with people that are different from her. This way, she can personally experience and learn it.

“The personal dissonance I face stems from my attempt to balance my desire to work with [others] and my strictly selfish yearn to experience and learn. In this context, I say that learning and experiencing are primarily self-centered because their ends lead to personal-development.” [Student #2, Global Citizenship pre-trip Journal Reflection]

After the trip, she started to rethink the cultural dynamics that were happening during the trip. For her, she realized and accepted the limitation of being an American.

“Being raised within the American education system, I have been taught to think in a goal-setting fashion; there were always clearly defined goals with labeled steps, and barricades to prevent you from deviating. Thus, if the end-goal in sight is abstract, or not quite clear, or if it changes, it made me feel uneasy and to a certain extent unaccomplished. Currently I am working on stopping this goal-driven mentality; I am trying to internalize that there is validity and worth in engaging in activities that do not necessarily produce a product.” [Student #2, Global Citizenship post-trip Journal Reflection]

For students, the concept of global citizenship was also about building a cultural understanding. Student # 18 from Cornell expressed it as “One thing I appreciate is that while I am learning Thai culture I am becoming more conscious of what American culture truly is.” Another student described the depth of the global cultural learning.

“As for learning culture and building friendships, we have been able to share the ‘Thai Beliefs’ and other silly things but also I’ve started having deeper conversations, especially with [Student # 11], which is what I really enjoy. I think it is difficult to really be intentional with other team members sometimes, and be active in seeking to get to know them, but I have been able to make some strides, namely in taking [Student #11] and [Student #13] to the [Cornell] plantations [Natural Area]. And also I have not laughed as much as I have in a while, so that’s great.” (Student #16, Reflection #2)

Results: Themes from the Summer 2014 GSC Reflections

This past summer both Cornell and Mahidol University students spent four weeks of working and learning together on a community-based research project with the City of Ithaca. They were asked to submit three reflection journals to the faculty members. From the reflection journals, several themes generated. Since the journals were written in English, Mahidol University students faced the challenge of being able to fully describe and share their critical reflections with the Program Directors. Two categories that emerged from the qualitative thematic analysis were new experiences and teamwork.

New Experiences

Many of the students talked about the new experiences since this is an exchange program where students will be conducting community based research to benefit the City of Ithaca its residents. In addition, they are new to each other. For Cornell students, it was the first time that they worked together as a team whereas Mahidol University students have worked together as a team in January when a group of Cornell students visited and worked with them on research projects in Mahasawad Canal and the Bangluang – 100 Year Market. Coming together as a Cornell-Mahidol research team was a brand new experience for everyone. Also, for the Mahidol University students, it was their first time visiting the United States, Ithaca, and Cornell University. For some, it was their first time traveling on an airplane.

“In the airplane I talk with air hostess, but she don't understand me. [I] have someone ask me ‘why you go to the US?’ I answer him ‘I’m [in a] student exchange program’. So he speak English with me very fast. He ask me ‘you understand or not?’ And I told him, ‘I don't understand.’ He laugh [at] me [and] I felt so sad. And I felt nervous because I think when I met everyone I cannot talk, listen, and understand when you speak English (Student #10, Reflection 1).

So the Mahidol students were coping with adapting to a new culture and primary language (English)—which was at times an emotionally difficult process as this student expresses her sadness at someone laughing at her on the flight from Bangkok to New York City. For many of the Mahidol University (MU) students, this is also their first time having to live together and cook for themselves. MU students discovered their ability in adjusting and adapting to their new environment and the food.

“A culture that always I learn and adapt everyday is about the food every foods. It's always eat with a bread such as a burger for me. It's hard to eat because is big for me and it will be dirty because I don't know a technique to carry my burgers.” (Student #14, Reflection 2). They are also willing to take on the challenge as needed, like doing their own laundry. “Moreover I went to laundry I think I just a little story but I think it gave me new experience that had a lot of washing machine and drying machine then I didn't know how to use it but I could figure it out though.” (Student #12, Reflection 2) So the Mahidol students were adjusting to a new way of life (most live in the dormitory on campus and don't have to prepare meals and take on responsibility of cleaning a shared apartment) in addition to speaking in English as the dominant language (rather than Thai).

For Cornell University (CU) students, this is their first experience interacting with people whose English is not their first language. The language barrier had a significant role in the program as none of the CU students speak Thai.

“The first few days of this program have definitely been exciting. I could have never imagined learning so much in such a short period of time, especially without even being in a classroom. The most direct things that I noticed and has to adjust to in this program was the language barrier. Upon meeting the students, I quickly discovered that they weren't as fluent in English as the many other exchange students that I have met. Come to think of it, I'm not sure that I've ever met any exchange students from such a distant area of the world. Even this challenge didn't deter me though, it challenges me and encourages me to find new ways to communicate and make it easier for them to understand. In doing so, I would love to gain the confidence to communicate with those outside of my language barrier, and possibly to even feel more comfortable learning another language to help communicate with others outside of my language barrier.” So the Cornell exchange program students were also navigating the language barrier, but from the perspective of what they could do to facilitate, improve, and support communication.” (Student #15, reflection 1).

The Mahidol University students frequently mentioned the challenge of not being able to communicate and understand fully in English. The language barrier is a challenge for everyone to work together and collaborate if they cannot communicate effectively. This also creates difficulties for conducting community-based research, especially if the community's native language is not familiar or fluent for the researcher.

Teamwork

Working together, in collaboration, and achieving a common goal were pronounced throughout the students' reflection journals. In conducting the community-based research project, the research is not an individual exercise; rather it is a collective activity for a common purpose set by community partners involved. Amongst the students, they have to learn to work together, getting to know one another and build trust amongst each other so

that they can deliver high quality of work for the City of Ithaca officials and City of Ithaca residents. We utilized Bruce Tuckman's group formation process sequence (Tuckman, 1965; Tuckman and Jensen, 1977) to help us devise activities and environment to allow all students to form into an effective team. The five stages are: forming, storming, norming, performing and then adjourning or mourning. As faculty leaders of the program, we focus our effort at the beginning in creating opportunities and developing activities for students to all to get to know one another.

One of the activities that all students mentioned in their reflection journal was an activity that pushed teams from the "forming" stage to the "performing" stage. The activity was a modified version of the Food Network television show "Chopped". All students were divided into two groups. Each group was tasked with making a Thai and a North American dish on two separate days. The assignment required that dishes include particular ingredients that have been set by the Program advisors. They are judged by the presentation, the taste, creativity, and their ability to work together as a team to create the dish (everyone must explain their contributions). They were all judged by people outside of the program, many of whom were our community partners, that were invited as guest judges. One student from Cornell expressed their trepidation with this idea originally and how it changed over the course of the program.

"At first when I heard of the idea I kind of cringed because I thought it was going to be too cheesy and none of the students would like it. I am happy to admit that I was very wrong. "Chopped" was teamwork at its finest. I helped my team with prepare the vegetables by chopping, dicing or slicing them. The best part was watching them cook because they all seemed to be moving in tandem. While showing us what they cooked, they taught us some basic Thai. Such as how to count from one to ten and the difference between beautiful and unlucky in Thai is simple intonation. "Chopped" was a genius idea on the part of Amy and Shorna because it definitely brought our groups closer together and it allowed me to sample so delicious Thai food." (Student #17, Reflection 1)

Students all delegated their tasks and used each other's strengths and abilities to accomplish the goal. We saw the process also being modeled in their research teams.

"In teamwork, our ultimate goal is for everyone's abilities to be highlighted in our experience. What this really means is that we are able to create an environment in which all students feel comfortable sharing what they bring to the table for the good of everyone else." (Student #15, Reflection 2)

One theme that emerged from the thematic analysis was that of "friendship." All students in the program expressed how the friendships developed, surprisingly in such a short time, because of all the time students were spending together and all of the personal and academic experiences in which they were engaged. Becoming closer friends had positive implications for the research they were conducting in their teams.

"Because the Cornell students spend the majority of their time with our Mahidol counterparts the friend aspect has been completed and can only be strengthened. I truly believe the amount of time we spend with each other not only has allowed us to become close friends in a short time frame but the abundance of shared time also begs for new experiences and team work. (Student #18, Reflection 2)

By the end of the program, students were sad to see the program come to an end. However, they formed such an effective team and a strong friendship with each other. We took the time to celebrate their accomplishments by having them present their research to the City officials and other university departments' faculty and staff members. They received praises and positive and concrete feedback on their research and were each presented with Certificate of Appreciation. In addition, the students presented their most memorable times with their research buddy in an informal presentation.

Conclusions

Global Citizenship and Sustainability completed its first year with Mahidol University, as the partnering higher education institution. There were many lessons learned from this model. One lesson learned is the importance of reflection in helping students make sense of the international education experience. Having students reflect on global citizenship before, during, and after the trip was an important part of the learning process. Initially, the reflections were just completed by the Cornell students, but we quickly realized that the Mahidol students would benefit from this practice as well (even with the challenge of writing in English); thus we incorporated reflections for all students (CU and MU) into the summer program and this was very valuable—for both students and the program directors.

Also, critical was the need to be intentional about giving students space to develop friendships. The friendships that developed benefited the team research process and helped students move from the “storming” phase of group development to the “performing” stage. They learned to come together as a team for a common purpose, while also forming what they deemed as “lifelong friends.”

Future Plans

One aspect that we found challenging in this program was the language barrier as was elucidated in the results from the perspective of both Cornell and Mahidol students. We are exploring ways to address this challenge in the upcoming program year. Cornell recently provided resources to offer a 1-credit language course as a supplement to the pre-departure course to help prepare Cornell students in the GSC program gain familiarity with the Thai language. Also, in selecting the Mahidol University students for participation in the GSC program, English language proficiency will be paramount.

In future iterations of the program, we will collect data from community-partners (survey or interview) to assess their experiences with the GSC program. In the pilot year of the program, community partners and GSC faculty provided oral and written feedback to students on their community products. Future research will include an assessment from the community members on the utility and efficacy of the research and outreach materials produced by students.

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What Did Residential College Students' Perceive They Have Learned through a Cross-border Generic Service-Learning Program?

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ABSTRACT

Service-learning and residential-learning are two educational practices for integrated education which stimulates students to synthesize what they learn in different courses and to connect in- and out-of-classroom experiences. These two approaches have been adopted by an increasing number of higher education institutions in Asia in order for students to cultivate knowledge, skills and values that are essential to civic engagement and global citizenship. This paper aims to critically assess the learning perceived by students who participated in a recent cross-border service-learning program organized by a residential college (RC) of a Macau university in a township in Sichuan Province of China which was badly hit by the Great Earthquake in 2008. Several key facets of students' perceive learning through active engagement in the student-led service activities are identified and examined, and the results are cross-checked with the five intended learning outcomes of the program. This study contributes to a deeper understanding of how to improve educational programming in the intertwined yet under-researched context of service-learning and residential college in the East Asia region.

Key Words: Service-learning, residential college, civic education, China, Macau

1. INTRODUCTION

Service-learning and residential-learning are two educational practices for integrated education which helps students to synthesize what they learn in different courses and to connect in- and out-of-classroom experiences. These two approaches have been adopted by an increasing number of higher education institutions in Asia, for example, those in China, Taiwan, Hong Kong, Macau and Singapore, beyond the Western countries as their origin, in order for students to cultivate knowledge, skills and values that are essential to civic engagement and global citizenship. This paper aims to critically assess the learning perceived by students who participated in a recent cross-border service-learning program organized by a residential college (RC) of a Macau university in a township in Sichuan Province of China which was badly hit by the Great Earthquake in 2008.

2. CONCEPTS AND THE CONTEXT

2.1 Live", "Serve", "Learn"

A residential college (RC) system serves 'as a means to integrate students' in-class and out-of-class experiences by providing a community that fosters greater faculty and peer interaction, increased opportunities for coordinated learning activities, and an academically and socially supportive living environment' (Inkelas & Weisman, 2003, p. 335).

Service-learning is a pedagogical approach to creating carefully monitored educational experience in which students participate in an organized service activity

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that meets identified community needs, and reflect on the service activity in such a way as to gain skills and knowledge, develop increased self-awareness and an enhanced sense of civic responsibility, and discover meaning in their lives (Bringle & Hatcher, 1999; Reeves & Hare, 2009). With equal emphasis on service and learning, any service-learning programs must provide benefits to both the recipients and providers of the service (Furco, 1996). More than just doing service, an academic capture of knowledge is required through written reflection, small group discussions, class presentations, multimedia projects or other forms that express what the student has learned (Bringle & Hatcher, 1996; Jay, 2008).

2.2 Background Context of the Institution

The higher education institution under the present study (hereafter labelled “MU” for anonymity) is a public university in the Macau Special Administrative Region of China (simply “Macau” hereafter). MU has attempted to weave liberal education and civic engagement into the core educational experiences of students, while its RC system also acts an important part in this transformation. The transformation of the educational model of MU may be a critical challenge but it indeed provides a timely opportunity to put forward innovative learning opportunities for not only students but also faculty and even the community.

In 2010, two pilot residential colleges (RCs) were established, one of which is the subject of the present research, here labelled as “RC1” for anonymity.¹ Over the past few years, a few more RCs have been founded, and gradually taken shape in terms of management approaches and student development programs. In 2014/15, as MU has completed its relocation to the new campus in Hengqin, a total of eight RCs are in full operation accommodating around 450 students each from different academic backgrounds and years of study. In particular, it is now mandatory for all freshmen to stay in one of them. Envisioning the importance of global citizenship to university education, the RCs have incorporated different in-house and off-campus service-learning programs in a decentralized manner based on the individual college’s goals. Since late 2012, as the first residential college of UM, RC1 has implemented various service-learning programs of different scales, including summer trips to Laos (2013), Taiwan (2014) and Sichuan, China (2014).

Having the control over the whole process of design, execution and evaluation, the RC would be able to take care of its students’ personal and social development which is indeed the major objective of this living-learning community. As some service-learning programs are to be incorporated into and implemented via the RC system, which is a less-researched area of educational research, we are not yet certain what the best way is to do so to fully accomplish the goals of both service-learning and residential-learning. As part of a larger action research based study of RC service-learning programs, this particular study aims to critically assess the learning perceived by students who participated in a recent cross-border generic service-learning program organized by RC1 in order to provide preliminary evidence of whether the service-learning goals of the RC match with students’ perceptions of learning in such type of programs. The approach of action research is adopted since we ultimately strive for developing deeper knowledge

¹ The RC system is under the management of the Vice Rector (Student Affairs). The official statement of MU about the RC system defines that “Residential Colleges (RC) is a small on-campus staff-student learning community that integrates students’ learning and life and that aims to promote their whole-person development. Each student not only belongs to his/her major but is also assigned to one of a number of RCs. In a university, faculties and RCs are supplementary to each other, or mutually complementary to the other.” In a regular setting, each RC has four academic staff members, including College Master, Associate Master (both of whom can be full-time or part-time) and two full-time Resident Fellows.

about how to improve educational programming in the newly established RC system of MU.

3. DATA COLLECTION AND ANALYSIS

Reflective discussions with various stakeholders, including students, RC academic staff and local partners were conducted. Multiple sources of data are collected and interpreted, for example, interviews, activity records, group discussions (pre-, in- and post-service), videotapes, photos and students' journal entries and retrospective essays. Based on the method of content analysis, the data are analyzed and compared with open and axial coding, and themes are to be developed and interpreted.

4. ABOUT THE PROGRAM

In late 2013, the idea of organizing a service-learning trip to Sichuan, China was first initiated by the second author of this paper, as one of the academic staff of RC1, taking advantage of connections previously made through a regional service-learning conference with a Chinese social work service organization. After a field visit by the second author in February 2014 and a few months of planning, including a series of coordination, student recruitment, logistical arrangements and pre-departure preparation, a total of eight students participated in the program and went to the trip in June 2014 for 10 days in the earthquake-hit Shuimo Town in Sichuan. The student outputs encompass in-service daily reflection in the forms of group discussion (video-taped) and journal entry, post-service individual retrospective essays, a video, and a presentation at a sharing session held in RC1.

The service site was Shuimo Town situated in Wenchuan County, one of the hardest hit locations of the earthquake measured at 7.9 Mw and stricken on Monday 12 May in the mountainous Sichuan Province, China (CCTV News, 2012; Encyclopaedia Britannica, 2014). The disaster caused tremendous human and economic losses. However, after several years, Shuimo Town has transformed from a heavily-polluted industrial center to a tourism spot. The program participants visited and stayed in Gaofeng Village, one of the isolated villages scattered across different attitudes of the mountainous area in Shuimo.² The students designed and performed a series of service activities for school children and local villagers throughout the trip.

With regard to the intended learning outcomes (ILOs) of this program, in the end of the trip, students should be able to:

- 1) Analyze the strengths and problems of the service activities they designed and implemented for the local villagers and school children (ILO1);
- 2) Demonstrate high levels of teamwork, communication, and leadership skills (ILO2);
- 3) Distinguish the local culture in Sichuan and relate their own culture to that observed at the service site (ILO3);
- 4) Summarize and compare their service-learning experiences (ILO4); and
- 5) Suggest ways to act more responsibly in society in face of social problems (ILO5).

5. FINDINGS AND DISCUSSION

In consideration of the five ILOs listed above, we attempted to evaluate what the students perceived they had learned, through analyzing their reflections during and after the service period, and compared these to their expectations collected from the

² Gaofeng Village, with an elevation of over 1,000 meters, is one of the most isolated mountain villages above Shuimo Town in Wenchuan County, Sichuan Province. The end of the village is unreachable within two hours' walking. The village has only around 280 residents, and many of them are working outside in the town center of Shuimo or beyond.

recruitment interviews and pre-service discussions. Emerging themes from such analysis were then triangulated with other sources of relevant information, including the onsite observation by the second author (as the teacher leader of the trip), his discussions with the leading social workers (as moderators), and informal conversations between the students and the authors. The emerging themes were subsequently cross-checked with the five ILOs to seek key themes for fruitful discussion.

The key themes identified are discussed as follows:

5.1 Learned to Have No Presumption

As the students got to know that they would have the opportunity to meet Tibetan people during their trip, they were all very curious about what this ethnic minority group of people look like and what kind of custom they practice. They initially imagined Tibetan people were probably “rude” and had “closed mindsets” but were surprised that the Tibetan adolescents were actually “polite, creative and fashionable” (Student L). Students agreed that they should not judge people’s lives and presume people’s behavior purely from the public media or other indirect sources, but should observe things in person before concluding any personal opinions. This specific learning has met ILO3 about cross-cultural encounters.

5.2 Improved Cross-cultural Sensitivity

Apart from avoiding prejudgment, students also realized differences among people, not just within the same country but even within the same region. Within the same province of Sichuan, the commonest ethnic groups of people the students met were Han and Tibetan, in addition to a few other ethnic minority groups. They discovered that people of these different ethnic origins could look very different. Another instance Student H observed was that the local villagers had never seen the sea as they lived in the mountainous region for their whole lives, and were very surprised when they heard that the RC1 students came from Macau which is a coastal city surrounded by the sea. This exemplifies that students were able to recognize diversity among people as a result of, for instance, varied grow-up backgrounds in this case. Such perceived learning matches with ILO3.

5.3 Learned to Deal with Language Problem

The local people at the service site spoke Sichuan and Tibetan dialects. Many could speak Mandarin but with strong accents. Although most of the students grew up in mainland China, some of them were from Guangdong and Macau, southern part of the country, were not very proficient at understanding the local people. However, they paired with their teammates who are more competent with the local language, and asked for the local social workers’ advice. After one or two days, the students expressed that they learned some tactics to better communicate with the local villagers. This learning has met ILO2.

5.4 Learned the Importance of Teamwork and Unity

Some students commented that, in the first two days of stay in Gaofeng Village, their division of labor was not clear enough, thus making a waste of time and effort in some tasks. For example, Student L pointed out that on one morning they had to go up the mountain to promote their afternoon activity to the villagers house by house along the slopes. They did not manage the time well and just went up and up, leaving very little time to tidy up the foothill venue where the afternoon activity would be held. Fortunately, a few male teammates were able to rush to the venue for the preparation work. Another instance is that Student H was falling sick during the first few days. She

recalled that she had thought of giving up but at last believed in perseverance especially because of peer support and mutual trust between her and her teammates. Such perceived learning has met ILO2 about teamwork, as the students not only knew to be responsible for their own tasks, but also learned to share each other's burden and provide practical and mental support to their teammates.

5.5 Learned the Need to Take Care of Differentiated Needs and Interests of Service Targets

The first service activity designed and executed by the students in Gaofeng Village was a sharing session for them to tell villagers about some places the students came from and had visited before in the hope to let villagers know more about the outside world. On the evening of the retrospective group discussion after the activity, several students gave critical comments on their failure to make the sharing session interesting enough to attract the participating villagers' attention, as they all noticed the loss of interest over the course of the activity. Although succeeded in attracting a large group of more than 70 villagers, they also faced a wide range of age groups. Student T analyzed that, given such wide age difference of the audience, the team failed to formulate comprehensive "target", "differentiation" and "decision-making" strategies beforehand. In other words, they should have identified one or two specific groups of audience as their target to deliver the sharing session. Student P supplemented to express that they needed different approaches to different groups of people, i.e. children, teenagers and the elderly. For example, to attract children, they should have used simpler words and games to instill fun into learning.

This incidence, as the students reported, was partly resolved by a few students, who were to deliver their presentations in the middle of the session, deciding cutting down the sharing session and taking the audience, particularly the children, to the playground for some fun games. Student L believed that this immediate shift seemed to have improved the uneasy situation, and their adaptability had enhanced after this lesson. These self-assessments showed that the students were able to analyze the strengths and weaknesses of the service activities they designed and conducted for the service recipients, matching with ILO1.

5.6 Learned to Make Positive Criticisms of Oneself and Others

Having various opportunities to plan, execute and reflect on the service activities, the students learned to evaluate and criticize whether what they had done met their own expectations and objectives. In regard to the incidence illustrated in the previous subsection, Student T frankly commented, during one of the retrospective group meetings, that he did not agree with the tactic of Students C and S of giving candies to kids as an incentive to attract their attention to their presentations. He elaborated that this tactic might not be effective since kids would ask for more and more, which might just encourage their materialistic wants. On another occasion, Student C openly suggested other teammates, once having completed their work earlier than others, should have self-motivation to offer assistance to teammates who have not finished, instead of just standing aside waiting.

Besides being able to provide positive criticisms to teammates, students also became self-critical and self-aware in order for the whole team to reach the shared goals of their service. For instance, Student C also admitted that he in the beginning was reluctant to accepting other people's comments on his work; however, he subsequently learned that others' criticisms would indeed benefit himself. Other students also made different criticisms about their own attitudes and practices, and suggestions on future improvement.

The above perceived learning provides good evidence of ILO1, ILO2 and ILO4 being met.

5.7 Learned to Be Appreciative

Upon the completion of the trip, most students expressed that they would cherish what they had got, as they saw that local villagers and school children were very happy even though their lives seemed to be harsh based on the students' 'standard'. Student H stated that she would think of 'have's' rather than focusing on 'have not's', and be more aware of problems and needs of her local community. This seems to suggest students were able to grasp ILO5.

The word 'appreciation', or other words that have this similar meaning, appeared in the students' reflection many times. The students had appreciated local people's friendlies, kindness and hard work; the beautiful natural landscape of the service site; the strong team spirit among their team; as well as the local children being very creative and energetic. Such learning of attitudinal and philosophical dimensions matches with ILO4.

5.8 Acknowledged the Reciprocal Value of and Self-Worthiness in Service-Learning

The students admitted that the program probably helped them in terms of learning much more than the local people in terms of serving. They understood that their experiential activity in the farm might actually disturb the normal livelihood of local farmers. The students were also able to remind themselves about the objectives of the service-learning trip, i.e. 'they were there to serve, rather than on vacation' (Student L). Nonetheless, they did not undermine the value of their service, and thought that they could indeed bring happiness to the people in this earthquake-hit region. Yet, they were well aware that whether they had done a good job would be up to the evaluation of other people, such as the local villagers and the social workers. They understood that people who were in need usually needed empathy more than sympathy. All this suggests students' perceived learning has met ILO1 and ILO4.

The above analysis of students' perceived learning has provided good evidence of most of the ILOs of this service-learning program being met upon its completion. However, although most of the above perceived learning tends to show students were able to suggest ways of taking actions for a better society, which would be responding to ILO5, ILO5 seems to be difficult to gauge at this stage. The authors believe that it takes time for students to nurture their sense of civic responsibility and advocacy, and it is not realistic to claim that, no matter how good a service-learning program is designed and executed, any action for social betterment or advocacy taken by students is a direct or immediate result of such program.

6. IMPLICATIONS AND LIMITATIONS

This study serves to seek improvement on service-learning programs of the RC system through a critical reflection on a recent international service-learning trip. It has identified and elaborated the students' perceived learning through their active engagement in a cross-border generic service-learning program, and whether all this key learning matches with the intended learning outcomes outlined in the program.

All service-learning experiences are not created equal" (Bell, Horn, & Roxas, 2007, p. 130), so it is vital for teacher-researchers to reflect on the specific contexts in which their programs are designed, implemented and evaluated. Understanding different aspects of generic learning of the participants can help program developers to intentionally create effective programs based on empirical evidence and not only on remote references.

More broadly, the present study sheds lights onto the under-researched area of service-learning and residential-learning in higher education in East Asia. It provides preliminary evidence that service-learning programs that do not have specific academic focus but aim at cultivating students' generic skills and knowledge, as well as providing help to the community and people in need, do offer certain values to students, service recipients, local partners, and even faculty.

However, most of the data analysis relied on students' self-reported learning, although teachers' observation and discussion with students and local partners was also compared to assess the validity of the findings. This is a common pitfall of any perception research, so it must be supplemented by other methods or embedded within triangulation approaches. In addition, since service-learning is a very personal experience. Even if two persons engaged in the same program, their experiences as they perceive can be completely different. While the present study does not aim to generalize the impact of service-learning programs on the learning and development of RC students, the results presented here will still need to be compared with future analysis of in-depth interviews with students, teachers and community partners, and even service recipients if time and resources allow. Observation and discourse can be applied to study how students' learning occurs in the whole learning environment of any service-learning programs which is interactive in nature.

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Session 6

College Life

An “Integrated” Service-Learning Model in a Residential College Context: A Case Study in University of Macau Henry Fok Pearl Jubilee College

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ABSTRACT

University of Macau Henry Fok Pearl Jubilee College has cultivated an “integrated” service-learning model in a residential college context. The residential college setting at University of Macau provides a living-learning environment in which students are provided ample of opportunities to take part in activities that fall outside the realm of the normal curriculum of university education. With students from different academic disciplines participating in a series of initially unconnected extracurricular activities (each with individual educational goals), an “integrated” service learning model in a residential college setting is to integrate the continuous efforts and outcomes of those college activities into extended service learning program(s) with a view to addressing the specific needs of a community and providing services to fulfil the needs. This contextualized service-learning program in a residential college is neither course-related nor discipline-related which completely depends on the voluntary participations of the students.

This paper is to showcase the lines of developments of the Henry Fok Pearl Jubilee College “integrated” service-learning model based on a case study of an experiential learning and voluntary teaching activity at Hainan Chengmai Si Yuan Primary and Secondary schools and a series of talks, workshops and projects in preparation for this activity. With a non-credit bearing nature and the mixed academic backgrounds of students, the service is an entirely voluntary, collaborative project which demonstrates the challenge of a coordinated approach and of striking a good balance between students’ personal interests and developments as well as the quality service to the community in need. With this unique educational context, this paper endeavours to demonstrate the variations in meanings and nature of a service-learning model to meet specific educational goals in a residential college in university education in Macau. This paper is divided into three parts. It begins with a brief literature review on definitions of ‘service-learning’ and introduces the need of a contextualized service-learning model under the new residential college educational system in University of Macau. The second section is a descriptive account on the development of service-learning program in Henry Fok Pearl Jubilee College. The last section explains the development of the “integrated” service-learning model characterized by its activity-network approach.

Key Words: integrated service-learning, civic responsibility, non-credit bearing, residential college, Macau

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1. LITERATURE REVIEW & SERVICE-LEARNING IN HFPJC

The definitions of service-learning are varied as it is practised by different educators in a wide array of service-related activities. While some practitioners focus on the integration of experiential education programs into the students' academic curriculum (Corporation for National and Community Service, 1990), others pay more attention to the balance between learning goals and service outcomes (Sigmon, 1994). In the context of residential colleges in UM, service-learning is implemented through extracurricular, non-credit bearing activities. This paper adopts a wide definition that sees service-learning as a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enhance both personal and civic development through which students apply their skills and competencies to impact others.

Residential college (RC) system has been established in the University of Macau in 2010 to promote college member's whole-person development. As a small on-campus staff-student learning community, residential college aims to foster liberal education and civic engagement among students through a rich variety of activities of social, physical, moral, cultural and civic pursuits that fall outside the realm of the normal curriculum of disciplinary education. Bearing the university's 4-in-1 education model, community and peer education is a very important part of the new pedagogical model. Service-learning program is adopted to encourage college members to take an active role in serving and helping others, as well as prepare students for life-long learning by connecting specialty education with community needs and real-world experience.

Henry Fok Pearl Jubilee College (hereinafter referred to as HFPJC) is one of the pilot residential colleges in University of Macau with a mission to develop a collegiate community through which members will develop a mature understanding of personal and community issues, along with a flexible and mature global vision. With around 200 students from different academic disciplines and different grades during the academic year 2013-14, HFPJC provided a living-learning environment in which students were encouraged to participate in various activities, including community and voluntary services. Service-learning activities are initiated and organised either by college office or by student members. Besides college staff and student House Association, ordinary college members also have the opportunities to initiate service-learning activities with the support of the college.

Within the context of the RC system, service-learning activities of HFPJC have several distinctive characteristics. First of all, all these activities are neither course-related nor discipline-related. Participants with various academic backgrounds compose a team to practice interdisciplinary cooperation and teamwork skills. Secondly, it's a non-credit bearing program. The driving force behind the participation is their personal interests and social responsibilities instead of receiving credits. Thirdly, all the participants are volunteers. For most of the events, students choose to involve in either part(s) of the service or all aspects of the process. Fourthly, service-learning happens both in campus and off-campus, in Macau and overseas. In order to provide more opportunities to engage more students with different course schedule, HFPJC designed various interdisciplinary activities in different areas and levels. For example, college members volunteered to run the college's library and be the tutors of study groups, which is a reciprocal learning process with the aim to meet college community's intellectual needs. In the academic year 2013-14, college members took part in experiential service-learning project in Thailand or Hainan China, which help enhance their cultural engagement, as well as to fully realize their global citizenship.

2. MEETING THE UNIQUE NEEDS OF RC EDUCATION

Service-learning in HFPJC is implemented to meet the evolving needs of higher education in Macau within the RC system. As an important element in RC education, service-learning aims to achieve both the historical mission and traditional academic goals of higher learning in fostering civic responsibility, critical thinking and literary skills as well as developing the ability to self-manage, self-reflect and read the world with global perspectives. This suggests a broader view of service learning to foster out-of-class learning within the different definitions of “service-learning”. As Jacoby (1996) suggested, “while service-learning that is embedded in the curriculum provides opportunities for faculty to enhance students’ learning by integrating course content with practical experience in a structured manner intended to meet course objectives, powerful opportunities for student learning and development also occur outside the classroom” (p.xviii). HFPJC recognizes the significance and potential impacts of the unique living-learning environment in RC. By incorporating service-learning into college activities, this approach adopts a more holistic understanding of student learning by extending the learning contexts to the everyday living environments. HFPJC launches service-learning programs using a noncourse-related activity-based learning (i.e. out-of-class, co-curricular, experiential learning experience) model in a residential-college context incorporating service-learning into non-credit bearing learning activities. These were not affiliated with any faculty or specific academic disciplines. Regardless of academic discipline, the projects aimed to promote positive attitudes toward volunteering, citizenship and hence college members’ sense of social responsibility. These were not integrated with any academic course content or curriculum. The following sections elucidate the implementation of the “integrated” service-learning model in HFPJC using the experience in the academic year 2013-14 as a case study.

3. THE HFPJC SERVICE-LEARNING PROGRAMS

HFPJC service learning programs were designed and structured to meet the long-term RC education needs to develop students’ whole-person developments and essential generic skills. In preparation for the full implementation of the residential college system in the fall semester 2014-15, some service-learning activities in HFPJC took place in the academic year 2013-14 were particularly designed to incorporate the five major learning competencies (i.e. cultural engagement, leadership and service, healthy living, global citizenship, interpersonal relations and teamwork) into experiential learning as a trial. Each of the activity or project led to a carefully organized service experience in which participating students were provided the opportunities to learn and reflects actively on what they have learned throughout the experience in sharing discussions and/or writing. It was a student-oriented, interactive, experiential education method to place students in the context of real-life situations to connect closely with the society. The program put an equal weight on both the service and the learning which each enhances the other. Students in the college organized and provided the service which met community needs. Different types of projects and workshops were interconnected with each other to form a wider service-learning program. The reason for this was to maximize the possibility to involve the majority of students from a variety of backgrounds to apply different skills.

4. A CONTEXTUALIZED ‘INTEGRATED’ SERVICE-LEARNING MODEL

To meet the special residential college education needs, HFPJC’s service-learning program (2013-14) was a contextualized outcome. As Xing and Ma (2010) pointed out, “service-learning must be contextualized and relevant to meet unique and evolving

needs, and the broader objectives of service-learning provide room for various models to emerge. By creating and evolving methods of adopting service-learning, faculty members have developed different models that allow their disciplines to service society. Thus service-learning takes different forms in different contexts.” RCs in University of Macau are the small on-campus staff-student learning communities that integrate students’ learning and living. Each student not only belongs to his/her faculty but is also assigned to one of a number of RCs. RC education has to be designed for students from different faculties and backgrounds to develop the general competencies and skills. Thus, service-learning as college education pedagogy in HFPJC was intentionally structured to meet most of the demographic characteristics of each student to promote whole-person education. The role of service-learning in HFPJC is to enhance college members’ sense of belonging to the college and to promote college members’ responsibility to care for others and contribute to the community through which they understand how they can utilize their skills to impact the community.

The service-learning model adopted in HFPJC is an ‘integrated’ one at two levels. At one level, each college activity was carefully organized to fulfil at least one RC competency to enhance students’ whole-person development. The completion of each activity was then followed by an informal sharing session in which students were encouraged to reflect actively on what s/he had learned from the experience, and more importantly, to think about how to extend the impacts of their learning outcomes on the wider community. With active students’ participation, the learning outcomes of each activity were pertaining to a wider service-learning program. As a result, different college activities and a variety of learning outcomes were integrated to contribute to a long-term service-learning program. At another level, since students were actively involved in the planning of the service under instructors’ guidance, the process required students’ creativity and problem-solving skills as well as their academic skills. This resulted in an ‘integrated’ learning when life skills learned outside the classroom are integrated back into learning and the next college activities or service-learning. The next section gives further information on how HFPJC service-learning model is developed.

5. DEVELOPMENT OF SERVICE-LEARNING PROGRAM

In the fall semester 2013-14, a series of oil painting workshops were organized. Each student was encouraged to produce at least one painting upon the completion of the workshops. In the sharing session under instructor’s guidance, students initiated the idea that linking the visual content of each painting to compose a short children story. The learning outcomes of the oil painting workshops (i.e. paintings) were then developed into another learning competency (i.e. English creative writing) and this group of student participants, who were initially engaged with painting art, then took part in another structured English Creative writing workshop. In the next stage of the project, other students were also involved to get the text translated into Chinese, to edit texts, to design the book cover, and to get the pictures and story published. It led to the publication of a children story book which was used as teaching materials in the upcoming voluntary teaching and community service. From initially oil painting, creative writing, translation, editing and graphic design to eventually conducting storytelling and voluntary teaching activities in youth centers and schools, the series of activities involved different interest groups (e.g. translation group, graphic design and publishing group) and learning experiences.

In November 2013, HFPJC organized an artist-in-residence program to engage college members with artistic practices. A visiting artist Chu Yinhua was invited to teach workshops on cyanotype printing through which students were not only engaged with the artistic practice but also exploring the history and culture of Macau. At the reflection

stage, students initiated to produce postcards with the select cyanotype prints to contribute to service-learning. The postcards were used as souvenirs to impact service receivers in community service activities. Different elements were involved in HFPJC service learning including integrated learning, reflection, student voice, collaboration, quality service, civic responsibility. As service providers, students practiced skills to care for others in the community, solve problems from the beginning to the end with big-picture learning.

In order to raise funds for the upcoming community service and charitable activities, including voluntary teaching and service-learning project in Hainan and visiting children wards at the hospitals, HFPJC student House Association organised a charity bazaar on campus in April 2014. To prepare for this event, several groups of volunteers took care of different parts of the project (see Figure 1).

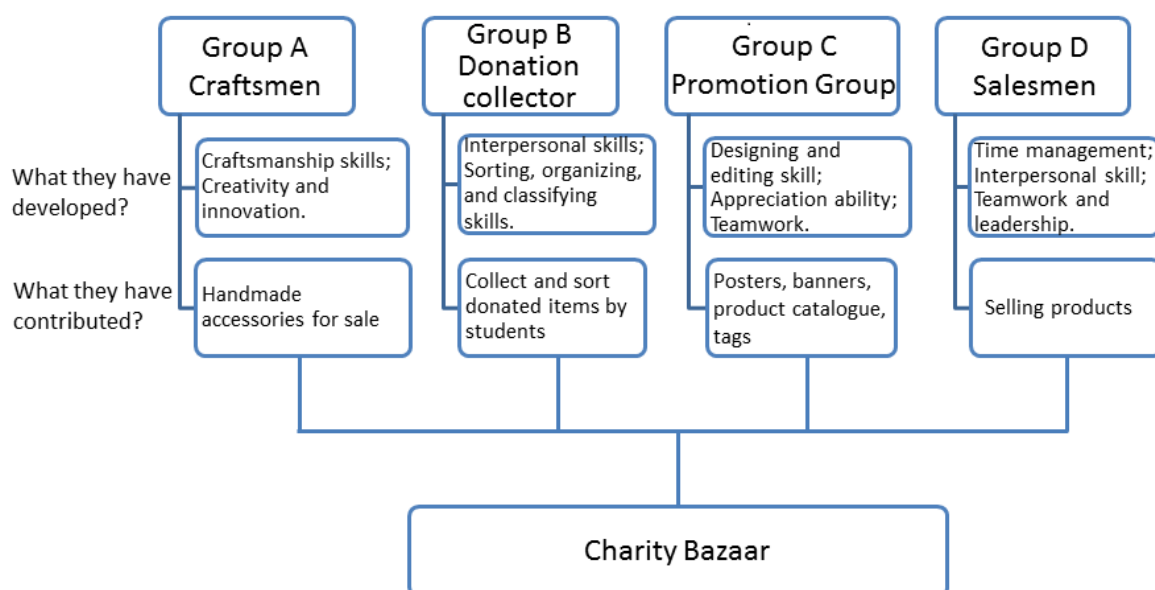


Figure 1 HFPJC charity bazaar organizational chart

Group A was composed of students who attended the handicrafts workshop. Those handmade purses, handbags, necklaces, bracelets and bookmarks, which were very popular at the charity bazaar, were designed and handmade by student volunteer craftsmen. After learning the basic production skills, students designed the accessories as selling items for fund raising. Many items were sold out on the first day. Volunteers organised additional workshops to make more handicrafts and offered on-site tailor-made services. This group produced products for sale which were the crucial source of income of the charity fund; meanwhile, they not only learned craftsmanship from the workshop, but also develop their creativity and management skills in the process.

Volunteers in Group B were responsible for collecting used items donated by college members. They needed to contact peer members, call for donations, gathered the donated items and sorted the items according to different types and properties. The volunteers were responsible for attaching each item with a card indicating the name of the donors as records. This experience was significant in developing students' communication and interpersonal skills.

Group C was the promotion group that was composed of several smaller teams in charge of different tasks including poster and banner designs, thank-you cards, modelling and photo-shooting, and catalogue design. The promotion process provided a

platform for creative ideas and innovations, from which students could develop their design skills and art appreciation abilities, as well as enjoy the achievements of teamwork.

Group D was the sale division. During the charity bazaar, two booths were set up on campus. Volunteers from different majors helped sell the items during the bazaar. It was the most challenging part in scheduling and division of labor in order to arrange enough student volunteers with different class schedule to fill in all the time slots. Time management was the key for success in this project. Students were also required to learn face-to-face retail merchandising techniques in order to increase sales. This experience allowed students to further enhance their time management skill, interpersonal skills, teamwork and leadership.

With the help of all these volunteers, the charity bazaar was a success. The fund raised through the bazaar provided financial support to the upcoming community service projects. More importantly, it has offered college members a learning process in which students contributed their skills and offered to help others to develop a sense of social responsibility, and to prepare them to become productive citizens.

6. SERVICE-LEARNING PROGRAM IN HAINAN

In July 2014, a volunteer teaching and service activity at Si Yuan Junior and High Schools in Chengmai Hainan took place. This service-learning camp was planned in October 2013 with which all the accompanying college activities took place from November 2013 to June 2014 aimed at planning the camp. This experiential service-learning camp was an event consisting of a series of voluntary activities which aimed at encouraging college members to participate in community services outside Macau, to provide services that meet local communities' real needs, as well as to explore the possibility of long-term service-learning projects with a number of Si Yuan schools and other schools in China. This was part of an ongoing long-term project in collaboration with Hong Kong Yan Ai Foundation to promote voluntary teaching activities in one hundred schools in China. These schools are recently built located in sub-urban cities surrounded by either impoverished antiquated villages or virgin new developments. Most students in those schools are from poor families who need assistance, care and love.

This camp was a service-learning activity which expanded on simply community service by enabling students to explore and examine the needs of others before (and during) providing the service. Before arrived in Hainan, HFPJC students had communicated the local schools to understand the culture, socioeconomic status and the needs of the local students and community. Having realized that the school campuses are in lack of cover plants and most local Hainan students are lacking in environmental awareness, HFPJC decided to deliver environmental education in the service. Volunteers conducted a recycling plant pot making workshop to teach local Hainan students to re-use plastic bottles and initiated a tree planting activity to teach about the impacts of human behaviors on the sustainability of the ecosystems. With the funds raised at the charity bazaar, HFPJC donated and planted twenty young trees in the campuses. Knowing that many children from impoverished family tend to drop out of school at an early age, HFPJC volunteers also organised sharing sessions to share with the local students their learning experience. They also provided other teaching services including storytelling and Macau culture class to enrich the exposure of the local students in Hainan. To enhance the learning experience, the HFPJC volunteers joined the cultural exchange activities such as bamboo dance, calligraphy, painting and paper cutting workshops. Volunteers made use of the children storybook that fellow college members published as teaching materials. They also prepared Macao local snacks and postcards with cyanotype images of Macau that were produced by fellow college members as gifts

to the students in Hainan. This activity was a service-learning which integrated student service into the learning (i.e. teaching skills, communication skills, organization skills, etc.). During the camp, student participants conducted qualitative observations on what the local students needed and the shortcoming of the nature of a one-off voluntary teaching opportunity. In the post-experience sharing session, students reflected that the service-receivers (i.e. the local students in Hainan) in fact needed more support and resources on general education/knowledge (e.g. world view, exposure outside Hainan, information on tertiary education, knowledge that is outside normal academic curricula, etc.). In addition, with limited resources and time available to university students, our student participants realized the shortcoming of the nature of voluntary teaching activity that only allowed limited, one-off service to a limited number of service-receivers. Based on these observations, our student participants are currently developing an education video production project to maximize the impacts of their voluntary teaching service to a larger number of students in two hundred schools in China (this project aims at producing a series of short educational videos as general education materials for being broadcasted in those schools which receive the service). This learning/service outcome forms a significant reference point which allows teachers to evaluate students' development in global citizenship, as well as leadership and service.

The service-learning programme in Hainan provided a good opportunity for our college students to fulfill the competencies in leadership and service, global citizenship, cultural engagement, and interpersonal relations and teamwork. This was not only a process to provide the service to meet the real needs of the local community; it was also a journey of self-reflection and self-learning for all the participants. The schools and local Hainan students who received the service also benefited from the activities.

7. DEVELOPING AN “INTEGRATED” SERVICE-LEARNING MODEL

In order to enrich students' everyday college life, and promote college member's whole-person development, HFPJC have organized a variety of activities in the areas of culture, sports, community service, social events, academic improvement, and leadership. Most of these activities are initially separated, and the students can choose to participate in some or all of the activities on the basis of their own interests. The service-learning project in Hainan succeeded in integrating a series of initially unconnected extracurricular activities with individual educational goals into a larger service-learning programme through which the outcomes of individual activities have been maximized. The “integrated” model (see Figure 2) indicates the mechanism how different activities are integrated into a service-learning program.

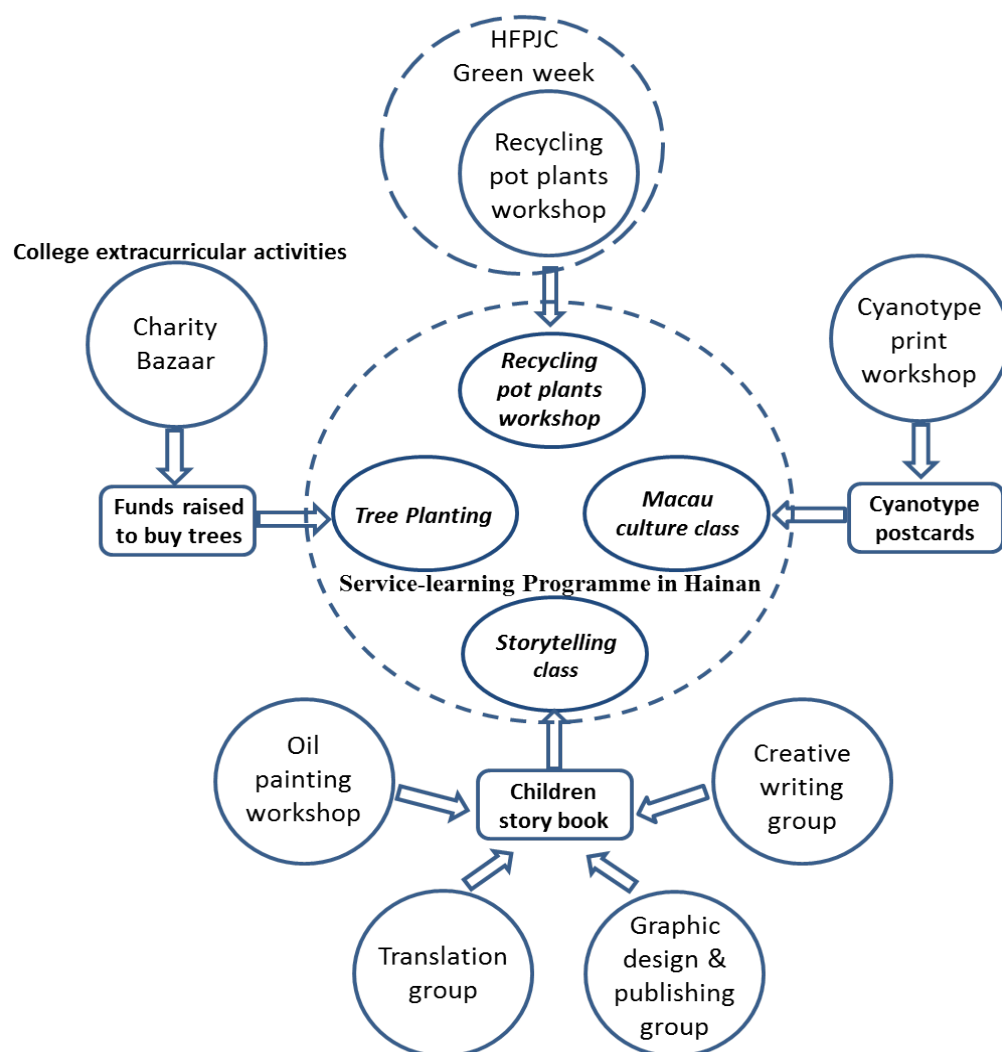


Figure 2 The integrated service-learning model in a residential college context

HFPJC service-learning program was the results of combined learning outcomes of a variety of college activities. The rationale behind this approach is to connect and extend the individual educational goals and learning outcomes of each college activity into integrated service-learning programs that connect students' everyday college life with the community through which students learn how they can impact the community. This approach explores the educational impacts of initially interdisciplinary, non-credit bearing, co-curricular activities to meet the changing needs in the new University of Macau RC system. This method is to create a "seamless" learning environment which not only acknowledges the significance of each college activity on student learning but also recognizes the importance of the very often neglected potential learning space 'in-between' activities. By engaging students with linking the learning outcomes of a variety of activities, the integrated learning approach encourages students to be proactive, creative and sagacious. HFPJC service-learning project was a collaboration between the college, community-based organization staff, students and the schools which were served. All partners benefited from the project and contributed to the planning of the program.

8. CONCLUSION

The HFPJC service-learning program was a result to meet the unique needs in the new RC education paradigm in University of Macau. While service-learning in many higher

education institutions is embedded in the curriculum, this paper shows that service learning as non-credit bearing college activity in a residential college offers great opportunities for student learning and development outside the classroom. The HFPJC service-learning program adopted an activity-network “integrated” learning approach to create a continuous “seamless” learning environment in RC to engage students who are from a variety of backgrounds and personal interests with both direct and indirect service learning. When service-learning, particularly in residential college education, is intended for integrating meaningful community service to enrich the learning experience, service-learning program in residential college should connect reciprocally with the learning outcomes of different college activities instead of being a separate program on its own with a view to developing sustainable service-learning programs. This ‘integrated’ learning model endeavors to achieve a balance between service and whole-person development which enhances with each other. It is proposed that the service-learning program in HFPJC will be developed from direct/indirect service-learning into research-based and advocacy service-learning activities.

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Service-Learning as Extra-Curricular Activities in a Residential College Setting¹

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ABSTRACT

Most researchers and practitioners take service-learning to be curriculum-based. Some scholars, however, argue for a more broad definition of service-learning, which encompasses structured non-curriculum-based community service activities. Adopting the broad definition, this paper presents the service-learning practice in a residential college setting and illustrates that service-learning can be a very effective instrument for residential colleges to promote students' personal growth. The study is based on two service-learning projects initiated by a residential college in the University of Macau, whose recently implementation of full residential college systems provides a good platform for service-learning projects to prosper.

Keywords: Service-Learning, Extra-Curricular Activities, Residential College

1. A BROAD DEFINITION OF SERVICE-LEARNING

Service-learning has become a popular teaching method in higher education (Kenworthy-U'Ren, 2008; Butin, 2006). It has been proven effective for improving students' understanding of social issues, personal insights and cognitive development (Yorio & Ye, 2012), and it has been adopted in a wide range of disciplines such as business and management (Andrews, 2007; Govekar & Rishi, 2007; Kenworthy-U'Ren, 2008), health and nursing (Housman et al., 2012; Ross, 2012), education (Ponder & Lewis-Ferrell, 2011), physics (Orleski, 2013), etc. Most of the service-learning practices are curriculum-based, i.e., they are the application of classroom knowledge to the real world problems; and by doing so, the community needs are addressed and students' understanding of course content furthered (Bringle & Hatcher, 1996; Howard, 1998; Butin, 2010). However, some other scholars have suggested a broader definition of service-learning. Jacoby (1996), for instance, defines service-learning as

“a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development. Reflections and reciprocity are key concepts of service-learning” (p.5).

As he argues, such a broad definition is needed because in addition to curriculum-based service-learning enhancing student learning, there exists non-curriculum-based service-learning, focusing more on student development such as identity exploration and social responsibility. This paper follows the definition of Jacoby and presents the service-learning practice in a residential college setting. It is to illustrate that service-learning serves as a very good instrument for residential colleges to promote students' personal growth.

This research adopts a qualitative method. The researcher participated in the service process and did on-site observation. Sharing session was organized, semi-structured

¹ I am grateful to the two anonymous reviewers for their valuable comments.

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questions were asked and students' feedback was collected.³ Focus groups were also organized to discuss about problems emerged in the service process. This is a very preliminary study of the practice of service-learning in residential college, more data in expected to come in the coming semester.

2. THE RESIDENTIAL COLLEGE SETTING

University of Macau is the first university in Asia fully implementing a residential college system. In the era of building research universities, faculty members tend to focus on their research and publications rather than students. Students are therefore in a certain degree marginalized or neglected in many research universities (Fairweather, 1996; Boyer, 2014). In the pursuit of a world class university, University of Macau dedicates to cover both specialty education as well as liberal arts education. The faculties continue to focus on their research while the residential colleges work to develop students' various competencies including interpersonal skills and teamwork, global citizenship, cultural engagement, leadership and service, and healthy living. These competencies together will enable students to become "intellectually and socially resilient individuals leading principled, caring, and productive lives and conduct a life-long learning."⁴

After 3 years' pilot program, in 2014, there will be a full scale implementation of residential college system in the university. All freshmen will be required to live in a residential college for at least one year. All the freshmen will have to fulfill the requirement of residential college for graduation. The requirement includes a non-credit bearing⁵ general education course conducted in the residential college and a satisfactory e-portfolio, which documents all the reflections of students' participation in various college activities and their growth. Each residential college has one master who is an established full professor, one associate master who is assistant professor or above, two resident fellows who, with rare exceptions, hold doctoral degrees and four administrative staffs. The associate master and the resident fellows are responsible for the teaching of the general education course. Resident tutors (RT) and resident assistants (RA) selected from postgraduates and upper class undergraduates are also equipped to provide assistance in the administration of the college. College staffs together with RT/RAs are responsible for initiating activities in line with the five competencies for students to participate in.

As service-learning serves the goal of residential college in cultivating students' various competencies and producing caring individuals, it has become a common practice in the pilot residential colleges not as curricular-based but extra-curricular activities. On the other hand, the system of residential colleges also conduces to the adoption of service-learning; indeed, residential colleges have all the resources for initiating service-learning projects. To list a few, first, the resident fellows are full time staffs that qualified in designing and instructing learning projects for college students, and second, college funds provide financial

³Question list and students' feed-back script can be provided upon request.

⁴See Goals of residential colleges of University of Macau at the website <http://rc.umac.mo/goals-and-motto/>

⁵The course, however, is under reform. In the future, there might be credit allocated to the course.

support for service-learning activities. Overall, service-learning as extra-curriculum activities becomes a practice that fits well in the residential college setting.

3. SERVICE-LEARNING AS EXTRA-CURRICULAR ACTIVITIES

Two service-learning activities were initiated in the past semester in Cheng Yu Tung College. The first group partnered with an organization called Centro do Servico de Fornecimento Temporario de Alimentos da Caritas (food bank), which is affiliated to Caritas de Macau. The organization is started by Caritas de Macau and aims at getting in touch with those having economic difficulties by providing food support. Further assessment and follow-up service are also provided to prevent other potential problems from arising.⁶ 24 students joined this service program voluntarily and all of them were committed to the service for one year.

Part of the service was to pack and distribute food to the poor. Each month a group of students went to the service station of Caritas and work for 4 hours. About 200 service recipients, usually the elderly, came over to collect food. The more challenging part of the service was home visit. Students working in groups regularly visited people living in public housing to show social support, to detect potential needs or problems, and to look for solutions with the social workers. The same group followed up the same case for at least half a year.

The other project worked with Cradle of Hope. Cradle of Hope is also a local charity providing family-like living environment for 0-6 year old children who suffered from trauma of abuse, abandonment or neglect. It provides a secure environment for children to heal and to grow to upstanding members of the society.⁷ 11 students participated in this activity voluntarily. They were divided into 5 groups to take care of children of different ages. Students went to service every weekend for at least 10 weeks and 3-6 hours each time. Their work included tutoring and babysitting.

In both projects, students provided direct services for the community. They volunteered at the local charities, discharged the assigned duties and reflected on what they did and saw. For the first project, the challenging part for students was the home visit to the public housing residents. All of the participants come from affluent families of mainland China. They had no idea of the welfare system in Macau, and they had never walked into the public housing and talked to people living there. But with this duty, they had to interact with people from completely different background and find out problems the poor are facing; they were also encouraged to work out solutions with the charity.

For the other project, it was equally challenging for all students to tutor children aging from 0 to 6. Likewise, all of the participants come from Mainland China. Most of them do not have siblings, nor do they have extensive experience of living with younger children. But in that project, they had to learn how to calm a crying baby and how to deal with children in

⁶ For details of the organization, please visit the organization website at <http://www.caritas.org.mo/zh-hant/service/youth-and-community-service/centro-do-servico-de-fornecimento>

⁷ For details of the organization, please visit the organization website at <http://www.cradleofhope.org.mo/tc/>

conflict. In particular, , students had to learn to communicate with children, who, due to their earlier suffers, are often highly self-protective and might even be violent.

4. CHARACTERISTICS OF SERVICE-LEARNING AS EXTRA-CURRICULAR ACTIVITIES IN RESIDENTIAL COLLEGE

The characteristics of service learning as extra-curricular activities in residential college are as below:

4.1 Students' participation was motivated by their interests.

For the curriculum-based service-learning, students may pursue it for the sake of credit. But with regard to extra-curricular activities, students participate because they are interested. Interest keeps one's enthusiasm in the activity. Students were very dedicated to the service and no one dropped out from the program in the past semester. In this sense, the projects were very successful.

4.2 Projects are open to students from all disciplines.

One of the underlying principles for residential college is embracing diversity. To create a diversified and energetic environment for students to learn from each other, residential colleges host students from different academic and cultural backgrounds. The service-learning activities are not attached to particular curriculums, especially ones that require specific skills. It welcomes students from all disciplines as long as they are interested. This kind of inclusiveness makes extra-curricular activities suitable in the collegial setting.

4.3 Project was designed to enhance students' personal development.

Unlike the curriculum-based service-learning which focuses more on knowledge, one of the main purposes of the service-learning in residential college is to promote students' personal growth in line with the residential college spirits. The projects aim at cultivating students' leadership, team work spirit, interpersonal skills and social responsibility. Some projects may also attempt to nurture citizenship, and to promote cultural engagement and etc. Of course, if particular skills and knowledge are needed for the service, tailor-made trainings will be provided. Students are also encouraged to explore relevant literature and resources to solve problems in the fieldwork.

Despite the controversies around the definition of service learning, most researchers agree that reflection and reciprocity are two key components for service learning (Jacoby, 1996). The service learning projects presented in this article live up to these two dimensions. Sharing sessions are organized for students to discuss what they see and think (e.g., what they perceive as problems) in the fieldwork, and also voice their concerns and opinions on the implementation of the projects. Through the reflection, students learn interpersonal skills, teamwork spirits and social responsibility. The services students provide also benefit the community and relieve some workload of the charity organization.

5. IMPACT ON STUDENTS' PERSONAL GROWTH

Most of students gave positive feedback for the two projects. Feedbacks were collected during the sharing sessions of the two projects, from which clear signs of personal growth were presented. Students show growth in the following aspects.

5.1 Interpersonal skills and team work spirit

As mentioned, students come from affluent families of Mainland China has little experience of interacting with people from different economic and cultural background. They did not know how to wear properly in a home visit, nor did they have basic skills to start a conversation with whom they would visit. Training was provided to help them cope with the situation. After the first home visit, all the students talked about the experience excitedly. They said that it was easier than they thought and much more fun, because the elderly were very nice and talkative. As a result, students became more confident in communicating with people of different age and from different cultural and economic background. And because they had to work closely with team members to finish each task, they practiced team work as well. One group of students developed the most efficient way to pack and distribute food.

5.2 Self-responsibility

The participation in these projects was fully voluntary. How to make volunteers responsible has been a problem bothering charity organizations. In the Cradle of Hope project, 40% of the participants never missed one single service, although they were informed that if they were sick or had other arrangements during holidays, they could ask for leave. But 40% of them choose to stay. One of the students had his mother waiting for him for 2 hours because the service project overrun the allotted time. They said they knew that if they were not responsible, the children would have noticed. They wanted to be a role model for the children. In the Food Bank project, there was heavy rain during one home visit, students all got soaked but none of them yielded; all finished their work. It thus seems fair to say that students learned to be responsible for their work.

5.3 Social responsibility

In the project of Food Bank, students began to think about the welfare system in Macau and reflect on the welfare in Mainland China. Some of the students got interested in social security for elderly, and they compared the welfare system of Mainland China with that of Macau. Moreover, most of the students also learned that there is a profession called social worker. They suggested that University of Macau should also educate social workers for the society. In the project of Cradle of Hope, although students were happy to see that the children were taken good care of, they also felt sad for them because they did not have real families. Students realized the damage of broken families done to children. Some student proposed that the next step of the activity could be a promotion of care for children in the society.

Apart from these aspects, students learnt various things through the projects. These are some quotes from students' reflection. "We are very tired every time after the service, we fall asleep on the way back in the bus every time and sometimes even lean on the passenger

next side. Even so, I am happy doing the volunteer service. It is the happiest time in the week.”⁸ “I didn’t like children before, but now, when I see a child on the bus, I could not stop looking at him/her.” “I am amazed by children’s talent, they are fast learners and very creative.” “I learned to be responsible person through the service.” “I learned to be patient.” “I learned to behave myself so that I can set a role model for the children.” “I learned how to educate children with propensity for violence.”

6. CONCLUSION AND SUGGESTIONS FOR FUTURE PRACTICE

From these two projects, we learned some experiences in the partnership with community organizations, and in the administration of students. Here I propose some suggestions that might be useful for future projects.

6.1 Partnership with community organizations

The role of community organizations needs to be clarified at the beginning of the collaboration. Community organization has its own agenda and they do not want to spend too much time on projects irrelevant to their agenda. To establish a partnership with community organizations, we have to take their agenda into account in designing the projects. But it is also important to keep independence while collaborating with community organizations. Otherwise, we may sidetrack the goal of the service learning.

6.2 Pre-set rules for students

Since the service-learning projects are not curriculum-based and not credit bearing, students can quit anytime during the project without being penalized. It is important to set up clear rules before the registration, and to deliver clear message about how much time it will cost and what gain they can expect from participating in the project. It was lucky that the two projects mentioned had zero dropout rates, students showed some resistance when they were pushed to think deeply and to read extra readings. It is thus important to layout the rules and have them sign an agreement in the very beginning.

Overall, extra-curriculum service-learning activities prove to be a fruitful practice in residential colleges. Various service-learning projects focusing on different areas of personal growth will contribute to the whole person education pedagogy of residential college. With the full implementation of residential college system in the university level, the number of service-learning projects is expected to grow. A systematic analysis on service-learning outcomes is also expected.

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How to Involve, Motivate and Sustain Students in Service Learning Programs

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ABSTRACT

In recent years, service learning has gained much attention among universities as a complementary form of teaching and learning. Despite the popularity of such programs, very often, service learning activities have no standard framework and hence suffer from problems such as lacking attractiveness and sustainability. This essay therefore seeks to provide insights on key elements that could contribute to a high quality service learning program that emphasizes student involvement and sustainability.

In the past 6 years, as a student run service learning organization in Hong Kong, we have delivered more than 24 service trip projects with more than 300 student volunteers participated, serving 22 target schools in mainland China and Taiwan. From both our experience and a recent survey carried out among project participants, we suggest that an attractive and sustainable service learning project should first be able to present high quality program content that generates profound social impact. Next, the program should provide team members sufficient autonomy in designing the program contents themselves. Lastly, the bonding of the students themselves is crucial. It assures commitment, sharing, and sustainability from one batch to another, and ultimately creates unique experience, inspires minds, and stimulates positive long-term impacts.

Keywords: Student Involvement, Service Learning Sustainability, Program Quality, Organization Autonomy, Student Bonding

1. STUDENT LEARNING THROUGH COMMUNITY SERVICES

The idea of service learning stems from the recognition that the any form of education aims to bring students back to the community and contribute with both soft and hard skills. With this principle in mind, service learning emerged as a teaching and learning strategy that integrates meaningful services, learning and reflections to enrich students' experiences and responsibility, as well as strengthens the communities (Generator School Network - NYLC, 2011). It is one step further from pure classroom learning. Students will have the opportunity to learn and apply, with the additional value of benefiting the society.

The benefits of service learning are multi-dimensional. It first provides a valuable chance for students to learn and experience. The value of experience is beyond measure. In many cases, targets of such services have very different cultural or educational backgrounds. They are mostly underprivileged groups in our society. Service learning brings these diverse groups of people together, and through such experience, both students and the served participants can gain much deeper understanding of each other's cultures and backgrounds.

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This is especially true in China, whose Gini Index has increased from around 30 in early 1990s to 42.1 in 2009, indicating a rapidly widening rich-poor gap. (World Bank, 2014)

Service learning is also an inspiring process. Participations of these service works have a powerful impact on young people's mindset and their development (ChanLin, et al, 2012). Students can learn to appreciate others' way of thinking, to develop sympathy towards others, and to become more passionate about serving others and creating social impact with a sense of accomplishment. Ultimately, students themselves would also start to change: through practicing and servicing, they gradually acquire the ability to influence other people, polish the skills of communication and teamwork, and adjust their values and visions of life with the new experience and broadened horizons.

From another perspective, service recipients are not benefiting less than the students do. They could enjoy the services at much lower costs as service learning projects are usually sponsored by universities or foundations. For many under-privileged groups, cost is an important concern, so does the accessibility of those services. Through service learning projects, they are able to access service provided by highly educated students and experts, to knowledge and technology that is new and up-to-date, and sometimes, to stories and life experiences that they never knew before. In a nutshell, service learning fosters mutual development of both students and the served community.

2. SELF-INITIATED SERVICE LEARNING PROJECTS

The idea of service learning with above mentioned benefits soon captured the heart of many educators. Many schools and universities, such as Duke University and Arizona State University, have been promoting this as part of their student education²³. In the Hong Kong Polytechnic University (PolyU), since the re-structure of undergraduate curriculum from 3-year to 4-year programs, service learning is part of the compulsory requirements for all undergraduate students⁴. There have been many service learning subjects proposed and executed by departments and schools. A special office is established to coordinate and provide advice on all these subjects. Many successful service learning projects have been resulted with the newly introduced subjects.

Other than curriculum-based service learning projects, there are community service opportunities self-initiated by students. These extra-curricular service projects usually cover a longer time-frame than the curriculum-based ones. However, unlike curriculum-based service projects, these projects often lack guidance and have limited resources for repeated service (Jeandron & Robinson, 2010). Also, it is observed that not all extra-curricular service learning projects can serve their purposes well. In many cases, feedbacks from the participants are not as satisfactory as expected. Hence, we need to have a more effective way to assess and organize self-initiated service learning projects (Nicotera et al, 2013).

The first issue that is always brought up by studies and media is the sustainability of such services (Lambright & Lu, 2009). There has been increasing concern on whether service learning can really benefit the community on a long-term basis (Talyor, 2008; Burns, 2011). The outcome of service projects is also affected by effectiveness of interaction among different parties during service projects. It is quite common that students and the served targets have gaps in culture or language. Besides, the services are usually executed in one

² See Service Learning in Duke University: <http://servicelearning.duke.edu/>.

³ See Service Learning in Arizona State University: <https://communityengagement.education.asu.edu/programs/university-service-learning/>.

⁴ See Service Learning in The Hong Kong Polytechnic University, <http://sl.polyu.edu.hk/>.

direction and lacks mutual exchange. Therefore, to optimize service learning results, the programs need to ensure sufficient communication and sharing in both ways.

Another issue is how to keep students motivated and continually engaged. Ideally, service learning projects need to be attractive by themselves and students should participate not only for fulfilling subject requirements. Project ownership is important and students need to develop their own values through the implementation process.

3. KEY ELEMENTS TO INVOLVE AND SUSTAIN STUDENTS IN SERVICE LEARNING

Experiences speak for themselves. As one of the many social groups that are involved in conducting service learning programs, we wish to share our practices and hope to shed some lights on the essential qualities or elements that an attractive and sustainable service learning program should have, either supported by quantitative survey data or experience.

3.1 Introduction HeartFire Education Service

Starting from a student-run service organization five years ago to a registered NGO in Hong Kong, HeartFire Education Service (“HeartFire”) has been striving to develop innovative service learning models that fit both educational goals and community needs.⁵ HeartFire’s mission is to address inequality in education opportunities and thus alleviate poverty through inspiring service projects and experiential learning functions. In May 2009, HeartFire’s first service project started with 11 students going to a rural middle school in Shaanxi, China. The responses from recipients were surprisingly overwhelming. HeartFire continued to expand throughout the years. By July 2014, it has over 300 project members, and has successfully conducted 24 service learning projects to 22 schools in 10 districts in mainland China and Taiwan.

3.2 Methodology

From May to June 2014, 4 service projects were conducted simultaneously at 4 schools in Mainland China and Taiwan. Two sets of questionnaires were designed and distributed to project participants and the served students at the end of each project (as shown in Appendix I). Questions cover a wide range of topics, including motivation of joining the project, satisfaction of each function conducted, the key learning outcomes from the projects, and potential areas for improvement, etc. A total of 660 valid responses were received, 24 from HeartFire members and 636 from served students. After analyzing, three main factors (pillars) have been identified as the key contributors to high level of student involvement, motivation and sustainability of service learning projects.

Nevertheless, it is recognized that this study is of limited scope and may not be widely applicable to all service learning projects. Results may also be affected by the list of options available in the questions which were pre-defined by HeartFire committee. Some arguments also come from experience which might be subjective and difficult to quantify. Lastly, findings presented in this paper need to be further reinforced by future follow-up studies.

3.3 Three Pillars to Involve and Sustain Students in Self-Initiated Service Learning Projects

Three main factors (pillars) have been identified as the key contributors for high level of student involvement and sustainability of service learning projects, which are premium program quality, autonomy and flexibility in organization, and strong bonding of team members.

⁵ See HeartFire Education Service: <http://heartfirehk.org/home/>.

3.3.1 Premium Program Quality

An attractive service learning program must first offer well-structured and high quality products that serves the recipients' needs. HeartFire's service trips are built up on several interrelated projects. Each project has its own theme and purpose, and they are designed to deliver value that can positively influence the children in ways that they can understand.

Before every trip, the organizers would spend sufficient time to communicate with the target schools and learn about the children's backgrounds, and try to understand if there are any specific issues or needs from them. Then the project designers will construct the detailed program contents accordingly. After several projects' experience, HeartFire realized that primary and secondary school education in China is mainly focused on academic and classroom learning which is test-orientated. Children are not guided on many other aspects such as their attitudes or values towards life and people, their independently learning and thinking abilities, etc. They are also not aware of the importance to develop their soft skills apart from learning classroom knowledge. Another major problem is that children in rural areas of China could seldom have access to the outside world, which prevents them from exploring their own dreams. To address these issues, HeartFire has developed six core projects that are implemented regularly in each service project now: Happy Camp, Study Sharing, World Travel Sharing, General Education, English Fun Class, Book and Film Sharing. Table 1 provides a summary on project focuses and purposes.

Project Name	Main Focus / Content / Format	Needs / Issues to address
Happy Camp	To develop students' positive attitude towards life through various group activities guided by helpers	Lack of guidance on positive life values and attitude; Lack of teamwork awareness;
Study Sharing	To share valuable study tips and methods to increase effectiveness of learning through interactive seminars	Lack of guidance on study methods, advice on "smart learning" and life- long learning attitude.
World Travel Sharing	To introduce life styles and cultures of different countries and cities worldwide through seminars	Lack of access to outside world; Lack of incentive and courage to pursue bigger dreams
General Education	To share handy life tips and general knowledge through interesting presentations	Lack of knowledge on general life tips (such as hygiene, etc.); Lack of independent thinking skills and interest on learning
English Fun Class	To stimulate children's interest in learning English through various games, role plays, literature reading, study tip sharing, etc.	Students in rural areas often lack incentive to learn English and regard English learning as boring and useless, as reported by most
Book and Film Sharing	To deliver positive life values and broaden horizons through sharing of good books and films, guiding them to read and watch	Lack of guidance on positive life values and attitude; Lack of access to and guidance on good out-of-class reading materials and model in life.

Table 1 Examples of Core Project Design – It's all about matching needs

These projects received warm welcome in all schools. On a scale of 1 to 7 with 7 being "strongly agree", all projects received high overall scores of 6 to 7 among children, agreeing that the activities are fun, the sharing and seminars are eye-opening and inspiring, and they are willing to share and recommend HeartFire activities to more fellow students and friends.

Furthermore, the projects are carried out in formats that emphasize interaction and mutual sharing. They aim at delivering values and encourage students to think proactively rather than passively receiving knowledge. HeartFire members would invite children to share and ask whenever possible during seminars, not to mention Happy Camp during which the children are playing the leading roles. It is much easier for them to digest and understand when they participate actively. Among all the feedbacks received, the statement

“I like the way that project members deliver the class” obtained almost the highest overall “agree” score. (Figure 1)

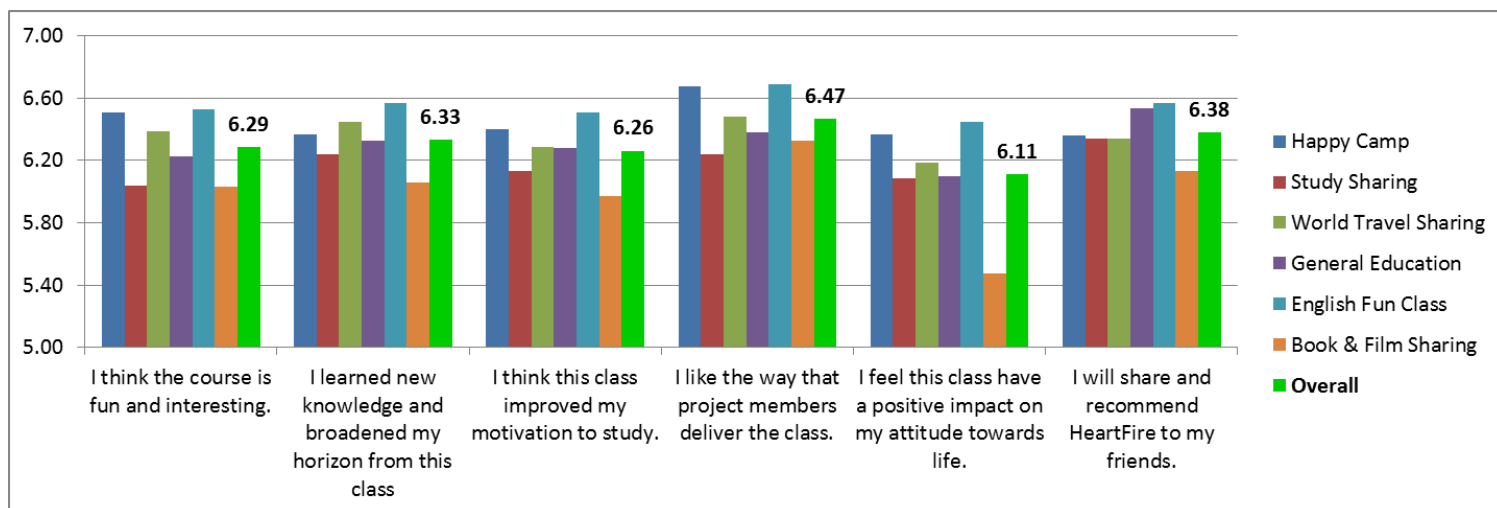


Figure 1 Overall satisfaction levels of the six projects

It is believed the main reason for HeartFire’s popularity is that the projects are tailor-made to cater for specific needs of the service targets: when asked about the main reasons to join HeartFire, majority of members expressed the wish to contribute to the improvement in education and living qualities for children in rural areas of China (Figure 2).

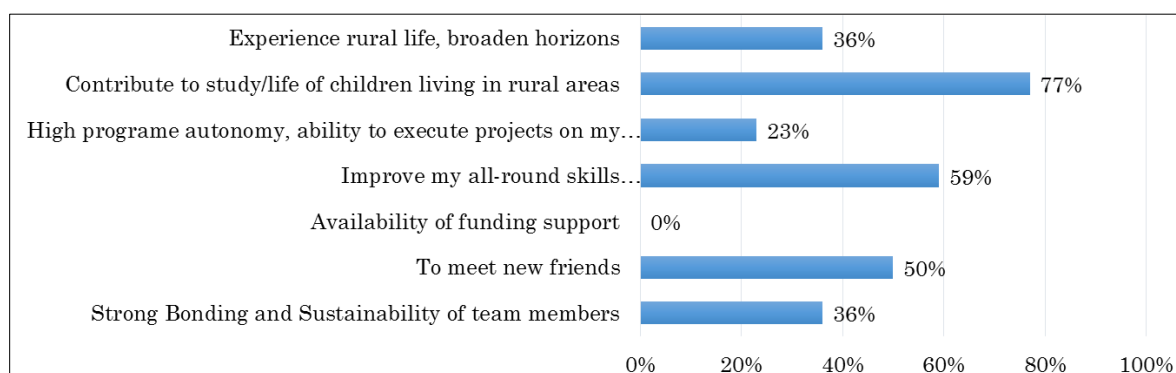


Figure 2 Most important reason(s) attracting members to join HeartFire

Finally, reflection is a key component for every service learning project. After each service project, feedbacks are collected from university students (project members), mainland local students and their schools. Through such feedbacks, future HeartFire members will be able to strive for continuous improvement when organizing activities.

3.3.2 Autonomy and Flexibility in Organization

The second key element lies in the way that service learning program organizers work. It is believed that within the strategic framework, project organizers should be given maximum flexibility in organizing activities, as the specific situations of every served school may be different. It is believed that such autonomy will also help encourage project members to bring new ideas and seek for consistent improvement in program quality.

Within each service team, HeartFire believes in project-based organization. There is no one fixed team structure; instead, a team of 10 to 20 students is divided into several small project groups, with 2-4 members in each group. Each group will be in charge of one of the six core projects and arrange all relevant details relating to this project. This would include

designing course contents, preparing necessary materials, and selecting the suitable target students and helpers. This would ensure that every project has a key focal point and is taken good care of, and every member will be able to polish their leadership skills through this process.

Team members of one project might also be responsible for all functional roles apart from the service projects themselves. Project members will undertake supporting tasks, such as designing materials, promotions, organize pre-project fund raising, finance, logistics, etc., based on their areas of interest or expertise. HeartFire attempts to maximize each project participant's full potential by providing them opportunities to contribute with their talents and apply their knowledge acquired in universities. In this way, students are more motivated and willing to involve more with stronger commitment. In the survey for the team members, 96% of respondents stated they would like to sign up for future HeartFire service learning projects.

3.3.3 Strong Bonding of Project Members

The third key element concerns the bonding of service learning project participants. Teamwork cannot be more important in ensuring the success of service learning programs: it ensures open dialogue, encourages sharing and understanding, and significantly improves productivity. In recruiting team members and forming each project team, HeartFire puts teamwork in the first place. In addition, HeartFire's executive committee includes an operations department which is responsible for enhancing internal team-building and communication.

Team-building is a continuous process in HeartFire's project cycle; it happens before, during and after every project. Operations department will first provide training to new joiners and regular meetings are then held before the projects for preparation. After the projects complete, there will also be sessions and gatherings for team members to offer feedbacks and reflect their learnings from the project. When the next batch of projects approaches, their experience and learning will be shared to the new project participants. This follow up system is now well-established in HeartFire, which can help inherit best practices and ensure continuous improvement in program quality. These are the intangible assets that HeartFire treasures most, and they are also what make HeartFire programs sustainable. For those who participated in twice or more HeartFire's service projects, all of them recognized the importance of teamwork and team-building and stated that the team spirit in HeartFire is the main factor attracting them to join again.

3.3.4 Achieving better service learning sustainability through the three pillars

It is believed that by incorporating the three key elements into service learning projects, they would be more likely to stand out from the crowd and become more sustainable.

First, the service programs themselves are HeartFire's core products. Higher program quality and greater impact would attract more students to join. However, a limitation with the six core projects mentioned before is that they are only carried out in short duration, usually one to two weeks during a trip visit. Therefore, along with these projects, HeartFire is also implementing programs that help to establish long-lasting relationship with the service targets. Among them, there is the scholarship scheme that awards the children who improved their performance significantly per semester and encourages them to provide regular updates to HeartFire committee. Besides, HeartFire also sets plans to re-visit some schools. Among all schools visited, three schools in Shaanxi, Jiangxi and Guizhou provinces have confirmed with HeartFire on executing long-term service plans. With these actions in

place, HeartFire is dedicated to creating a service platform that benefits the served community in the long-term. Figure 3 summarizes HeartFire's footprints up to July 2014.



Figure 3 HeartFire's Service Learning Activities (as of July 2014)

Second, it is also important to retain valuable human resources to better sustain service learning projects. By offering project members more autonomy and providing more team-building opportunities, HeartFire seeks to give its members as much credit as possible, allow them to optimize their potentials and realize their personal values. Meanwhile, HeartFire benefits by retaining these valuable experience and resources. Under this win-win situation, service learning projects are more likely to be sustainable.

4. CONCLUSIONS

Looking forward, service learning will continue to play an imperative role in university education. Participation of these services creates a powerful real-life impact on young people's horizon, mindset, life attitude, and even their purpose of life. Through the dynamic service process, students' personal and social growth is tightly interwoven into their academic and cognitive development. Therefore, it is extremely important to ensure that service learning projects are well designed so that students can maximize their involvement and motivation to join. From the community's perspective, service learning programs need to be more sustainable and long-term for them to create real impacts.

Taking HeartFire as an example for sharing purpose, we are delighted to propose and share a possible service-learning model that better involves and sustains students' participation. First, the program quality should be good enough to meet the specific needs of the served community, and they should be able to deliver positive value and long-term influence. Second, university students should take more autonomy and initiative in organizing and executing the program. They should work as a team of organizers, instead of merely participants. Lastly, the continuity and sustainability of participants are essential. This can be achieved through team-building and bonding of members. All these elements share a common core factor: mutual sharing and exchange. It happens among project members, and between university students and the served community. It is the factor that cultivates mutual understanding, creates synergy and fosters development of all parties involved in service learning programs. With these elements incorporated, service learning programs should be able to attract more passionate young people to accomplish their desired outcomes - to create memorable experience, to inspire minds, and to stimulate positive long-lasting changes. These are also the values that HeartFire believes in.

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APPENDIX SAMPLE QUESTIONNAIRES

1. Questionnaires for project participants (translated from original Chinese version)

This questionnaire is targeted at members who have participated in HeartFire's inspiring projects from 2009 to 2004. It aims at collecting feedbacks and suggestions from past members to discover most important factors that continuously keep HeartFire attractive and sustainable. It also attempts to seek any room for improvement in future organization of projects.

PART ONE: PROJECT FEEDBACK

1. From which channel did you hear about HeartFire?
Classmates/Friends Teachers Recruitment Emails Classroom promotion
Social Network Posters Others (Please specify: _____)
2. Please choose three most important factors for you to decide joining our inspiring projects:
Experience rural life, broaden horizons Contribute to study/life of children living in rural areas
High program autonomy, ability to design/execute projects on my own, optimize my capabilities
Improve my all-round skills (leadership, communication, teamwork, etc.)
Availability of funding support To meet new friends
Strong bonding and sustainability of team members
3. If you have joined inspiring projects more than once, what are the three most important factors that attract you?
Experience rural life, broaden horizons Contribute to study/life of children living in rural areas
High program autonomy, ability to design/execute projects on my own, optimize my capabilities
Improve my all-round skills (leadership, communication, teamwork, etc.)
Availability of funding support To meet new friends
Strong bonding and sustainability of team members
4. Which experience or function(s) impressed you most during the whole inspiring project? (Can pick 3)
Interaction with HeartFire past members and committee Interaction among project members
Interaction with the served schools and students Preparation of projects and itinerary
Experience of local culture and scenery Cultural exchange activities (if any)
Process of problem-solving together with project mates
5. In which area do you suggest HeartFire inspiring trips can improve? Please share your suggestion.
Selection of project members (suggestion: _____)
Program quality (suggestion: _____)
Means of organization (suggestion: _____)
Schools to cooperate with (suggestion: _____)
Sources of funding (suggestion: _____)
Others (please specify: _____)
6. In all projects you participated, which can meet expected outcomes most? (Please briefly explain)

7. Was the served school satisfied with this project's service? (7 standing for very satisfied and 1 for very unsatisfied; if unsatisfied, please briefly state reason)

8. Will you participate in HeartFire's future inspiring projects?
Yes No (please state reason: _____)
9. Will your recommend HeartFire's inspiring projects to your friends?
Yes (please specify channel: _____) No (please state reason: _____)

PART II: PERSONAL INFORMATION

1. How many times have your participated in HeartFire's inspiring trips in total?
Once Twice Three times More than three times
2. Please specify which project(s) you participated: (please specify time and place)

2. Questionnaire for service recipients (translated from original Chinese version)

This questionnaire is targeted at students from the served schools who have participated in any one of HeartFire's projects. It aims to collect their feedback and learn about their experience and feelings of our projects.

PART I PROJECT FEEDBACK

Please give your rating for each of following statements from your experience in this class/function.
(1 stands for strongly disagree and 7 stands for strongly agree)

Statement	1 Strongly Disagree	2 Disagree	3 Slightly disagree	4 Neutral	5 Slightly agree	6 Agree	7 Strongly agree
I think the course is fun and interesting.							
I learned new knowledge and broadened my horizon from this class.							
I think this class improved my motivation to study.							
I like the way that project members deliver the class.							
I feel this class have a positive impact on my attitude towards life.							
I will share and recommend HeartFire to my friends.							

Open questions:

1. What are your learnings/take-aways from this class? How will it impact or change your life and studies?

_____.

2. In which aspect(s) do you think this class or program can improve?

_____.

PART II: PERSONAL INFORMATION

Your current grade is:

_____.

The project that you participated in is:

_____.

Session 7

Impact & Partnership

Collective Impact through Service-Learning, Discipline-Based Approaches and Civic Engagement: Examples of Ateneo de Manila University's Service-Learning and Discipline-Based Engagements with Government Institutions and Their Programs

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ABSTRACT

Through the lens of Collective Impact, the Ateneo de Manila University-Loyola Schools (ADMU-LS) and the Department of Social Welfare and Development (DSWD) of the Philippines formed a partnership to address socio-economic concerns of urban poor families in the National Capital Region. Using service-learning or a discipline-based approach to student social formation, ADMU-LS utilized the National Service Training Program to conduct workshops on financial literacy and employment profiling to participant-families of the DSWD's Sustainable Livelihood Program. Students from the School of Management were trained and then conducted the said workshops for twelve weeks in two major cities in Metro Manila. Students from the Development Studies Program introduced the SLP's Employment Facilitation track and aided the participants in accomplishing government and organization employment forms. With the success of both programs, ADMU-LS is now deepening its partnership with the DSWD and is forging further partnerships with other government offices of the Philippines to broaden the scope of service-learning and discipline-based social formation to its students and to create even more impact to different social issues and concerns in the Philippines.

Key Words: Service-learning, discipline-based approach, financial literacy, employment, civic engagement

1. OVERVIEW

With emerging social problems arise varying solutions, many of which are independently endeavored by different entities. In a desire to provide solutions with optimal results, collaborative effort has become more evidently needed.

In a strategy called Collective Impact, entities addressing a problem with a common solution collaborate given five conditions: common agenda, where all participants have a common understanding of the problem, with a joint approach to the solution; shared measurement, in which data collection and results measurement are consistent; mutually reinforcing activities, differentiated activities are well-coordinated through a "mutually reinforcing plan of action;" continuous communication, which is "constant and open;" and backbone support that links and orchestrates such collaboration (Hanleybrown, Kania and Kramer, 2012).

Committing to contribute a solution to financial immobility among poor families in the Philippines, the Ateneo de Manila University Loyola Schools (ADMU-LS) collaborated with the Department of Social Welfare and Development (DSWD), the lead government agency for the social protection of the poor, marginalized, and disadvantaged.

In partnership with the DSWD-Sustainable Livelihood Program¹ (SLP), students, who are enrolled in the mandatory National Service Training Program² (NSTP), were deployed to poor

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¹ The DSWD-Sustainable Livelihood Program is a capacity-building program that aims to improve the socio-economic mobility of poor families with sustained sources of income through long-term objectives of micro-enterprise development and employment. In partnership with public and private sector institutions, the DSWD-Sustainable Livelihood Program facilitates workshops on financial literacy, time management, and technical and vocational skills training, which are conducted by subject-matter experts. (Sustainable Livelihood Program, 2014)

² Republic Act 9163 otherwise known as the National Service Training Program Law was enacted into law on January of 2002. It aims to enhance the civic consciousness of students to instill in them the values of service and patriotism. It requires male and female students under public or private tertiary level institutions of any baccalaureate degree course or at least two-year technical vocation courses to complete one of its components as a requisite for graduation: Reserve Officers' Training Corps (ROTC), Literacy Training Service (LTS) or Civic Welfare Training Service (CWTS). (National Service Training Program (NSTP) Act of 2001, 2001)

communities with participant-families from Quezon City and Marikina City. Sophomores from the Development Studies Program of the School of Social Sciences conducted employment profiling with participant-families while, students of the School of Management conducted financial literacy workshops.

Through these programs, the university hopes to form students, not only academically, but, socially as well. Thus, it employs Service-learning and discipline-based approaches as its primary methods student social formation. In partnership with DSWD, students are provided avenues to participate in the social development of their country through civic engagement.

As part of the universities core curriculum, courses such as Theology and Philosophy concurrently serve as service-learning courses that all students undergo. Alternatively, the ADMU-LS employs discipline-based service learning through major courses, if a service-learning course is not in place yet. This allows a multi-faceted and wide approach towards student social formation.

2. SERVICE-LEARNING AND DISCIPLINE-BASED PROGRAMS IN THE LOYOLA SCHOOLS

Throughout the years, service-learning in the ADMU-LS has been implemented but not formally institutionalized under such name. A clear example of this is the voluntary immersion program done in classes on the Theology of Catholic Social Vision, a course that focuses on faith and social transformation in the Philippine context. The immersion program requires students to spend three days in solidarity with a poor or marginalized community. After which, they are required to report about their experience incorporating the lessons they learned from the course; and, if possible, conceivable programs or project that may be implemented in their immersion area. The program or project may be related to their major.

Since then, other courses have followed suit to aid in the learning of the students, some even partnering with the Theology course to further deepen the learning of the students.

In the academic year 2008-2009, the ADMU-LS finally called activities of such nature as service-learning or discipline-based and has since made deliberate efforts to introduce service-learning and discipline-based approaches in the various courses the students take as part of their social formation. With its philosophy of forming persons-for-others, the ADMU-LS does not want it to end there. It wants its graduates to also be professionals-for-others. Given this direction and philosophy of student formation, the school's primary objective in introducing service-learning is for students to use the skills and knowledge they gained from courses in their certain disciplines to aid social development institutions, marginalized communities and cultural institutions (Dela Cruz, 2013).

The ADMU-LS adopts Bringle and Hatcher's definition of service-learning as "a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility."

For a course to be listed as one that employs service-learning, the department the course is a part of must have a formalized partnership with the ADMU-LS' Office for Social Concern and Involvement (OSCI), the office which provides the university's student social formation programs. When no major class is available to collaborate with the OSCI for the delivery of a program with already set service outputs, it will be called a discipline-based approach. With that, the students are still able to incorporate their academic knowledge from their courses into the service they render as it still aids in the deepening of the student experience of service.

This paper will discuss two aforementioned programs delivered during the previous school year as innovations in service-learning and a discipline-based approach through engagements with government institutions and their programs.

3. EMPLOYMENT FACILITATION THROUGH SERVICE-LEARNING

3.1 Overview of the Program

Through the ADMU-LS Development Studies Program, students under their care are "trained to appreciate diverse perspectives, undertake development research, analyze development policies and manage development interventions" (Ateneo de Manila University, 2012). In line with

Development Studies Program student formation, students experienced discipline-based service-learning through pre-employment assistance for participants of the Sustainable Livelihood Program. This was partnered with their Statistics in Social Sciences class held during the second semester of the school year.

Students were tasked to discuss documentary requirements of employment, assist program participants in completing the Public Employment Service Office's (PESO) employment form, and create a resume for the beneficiaries based on the PESO form. The students also assisted program participants in answering government or organization documents.

3.2 Program Outcomes and Participant Response

Most of the 111 two-month program participants ranged between 18 to 35 years old, with a participant gaining immediate employment as a private driver within the first few weeks of the program.

According to program participants, the assistance from the students significantly helped as documents are often intimidating for them. The participants found it difficult to remember their educational background, as a majority of them have only reached elementary, without having finished sixth grade. Some were illiterate but were willing to work as laborers. In addition, questions on their age, marital status, employment history, and skillset proved difficult as well.

3.3 Student Learning

The ADMU-LS conducted focus group discussions on students, where a majority of the Development Studies majors repeatedly shared a change in their perspective on the marginalized looking for employment opportunities. Formerly, a common misconception that the students had was that the unemployed poor lack the initiative or the industriousness to look for and retain a job. However, after the NSTP, they realized the difficulty of finding employment.

This provides a grassroots-oriented view that despite the creation of jobs as a solution to poverty reduction, readiness, adaptability, and skills of the poor are significant prerequisites in order to provide them with suitable gainful employment.

Furthermore, the students found that some of the attending participants were already employed or have existing small businesses but needed another means of income. Because of the need for additional employment, several students considered whether the program should extend its age coverage in order to cater to more participants. Another consideration was whether elderly participants needed employment as well. Moreover, several participants had underutilized skills, which they hoped would bring them additional employment. Through these, the students gained a better understanding of underemployment in the country.

What really engaged and encouraged the students in the program was learning that a number of participants received calls for interviews or were given employment within a few weeks. A student mentioned that one very memorable experience was that of a new participant telling her that another participant from a week before was called for a job interview. This delighted the student as it was an immediate and pleasant outcome.

Upon the end of the discussion, students discussed addressing unemployment and underemployment concerns in the country. Furthermore, they also learned that even the seemingly simplest processes such as lectures on filling out employment forms provide a significant impact on the program participants.

4. FINANCIAL LITERACY THROUGH A DISCIPLINE-BASED APPROACH

4.1 Overview of the Program

The School of Management, one of the four colleges of the Loyola Schools, took a discipline-based approach initiative, in which sophomore students were required to teach financial literacy to the participant-families of the DSWD-Sustainable Livelihood Program.

Among the students, group leaders were selected based on their fluency in speaking in Filipino and on their facilitation skills, to lead fellow students the basics of teaching financial literacy. The school of management also crafted a manual on financial literacy entitled, *Wais sa Pera, Wais sa Buhay* (*Be Wise with Money, Be Wise in Life*), where students were given a facilitator's manual, while participants were also provided with their own manual.

After a two sessions of training, 779 students were deployed across seven communities in Quezon City and Marikina City to give modules on financial literacy to program participants from those areas. Trainings were housed in community public schools.

Prior to the engagement with the ADMU-LS, the Sustainable Livelihood Program could only conduct one-day sessions to its program participants. However, with the ADMU-LS engagement, students were able to conduct more in-depth eight four-hour sessions to the participants. It was deemed more beneficial by the professors of the School of Management that Financial Literacy be taught in more than one session with recurring lessons on spending, saving and budgeting based on the real-time expenses of the beneficiaries.

The program participants were tasked to keep a list of their weekly expenses and track their spending patterns. For the eight Saturdays that they met with the students, the program participants were assisted on their budgeting and saving routines. Each session was divided into two parts, the first as a plenary session to serve as a review of the previous lesson and to introduce new concepts when needed; and, during the second part, the plenary was divided into smaller groups, with one to two students as supervisors to a group of participants. Through the small groups, the individual concerns of the participants were addressed.

4.2 Program Outcomes and Participant Response

At the end of the two-month Financial Literacy training, the students were able to serve 1364 beneficiaries of the DSWD' Sustainable Livelihood Program. Table 1 shows the distribution of students and beneficiaries served per public elementary school.

School	Ateneo Students	Beneficiaries
Manuel L. Quezon Elementary School	225	323
Tandang Sora Elementary School	199	321
Fortune Elementary School	45	25
Teodora Alonzo Elementary School	60	135
Balara Elementary School	75	218
Mines Elementary School	99	152
San Diego Elementary School	76	190
TOTAL:	779	1364

Table 1: Financial Literacy Program School-Student-Beneficiary Distribution

Participants shared that while many of the concepts were familiar to them, they were very abstract as a majority were concerned that while they were familiar with the concept of saving, they had no money to save. Furthermore, the participants initially understood financial literacy as an awareness on money and spending. After the program, they gained better understanding of home economics and budget allocation in order to meet the needs of their families.

In addition to that, participants, who were averse to utilizing modern saving practices such as savings accounts, gained a better grasp of such, with the help of another DSWD-Sustainable Livelihood Program partner, BPI Globe BanKO, a mobile savings bank that allowed the participants to open savings accounts with a minimum deposit of P50.00.

Prior to the opportunity given the ADMU-LS financial literacy program and BPI Globe BanKO assistance, the program participants utilized their funds daily, barely having any left for the coming days. Hand-to-mouth existence was prevalent among them. A common practice for them was to keep the little amount of savings they had, when they had some, under their beds. It added that banks were intimidating for them, thinking that they would need to have thousands of pesos in order to open their own savings accounts or own several properties in order to loan some money.

4.3 Student Learning

In-depth interviews were conducted for the School of Management students that went through the financial literacy program to assess what they learned through the program.

The students reported that most of the concepts they taught the participants were not alien at all; in fact, majority of the participants already learned the lessons through their own life experiences. Learning this discouraged some of the students. Still, the students did their best in teaching or reviewing these concepts with the participants.

Despite the lowered morale of some students during the program, there was one student that declared her unique perspective during the focus group. Upon learning that the participants already knew the topics, she saw herself not as a teacher but as a tutor. She began to realize that the program was not meant to teach something new; rather, it was to reinforce and practice the spending, saving, and budgeting knowledge of the participants. She was able to discuss this with her fellow student-teachers during the program and they all eventually began to see the incremental changes in the participants' expense patterns. The list of expenses became more precise and that the participants were beginning to save money, even in small amounts. This one student's perspective and learning is unique and striking in that it shaped her and her fellow student-teachers' perspective and appreciation of the program.

A commonality among those interviewed was the deeper appreciation of the relationships that they made through the program. They said that this was what they liked the most of the program. Through it, they were able to learn more about themselves and the lives that the participants had. The students learned to have greater patience and understanding for the poor.

From the observations of the OSCI professional facilitating the program in Manuel L. Quezon Elementary School, it was seen that the students learned to adapt to the needs of each group of participants and even to each of the needs of individual participants.

5. SERVICE-LEARNING THROUGH GOVERNMENT PROGRAMS

The school year 2013-2014 opened the doors for school-wide service-learning. More and more academic departments and programs are shifting towards this direction of engaged student learning.

With the success of the Financial Literacy training and the aid in the Employment Facilitation track through the DSWD's Sustainable Livelihood Program, more government organizations are being engaged for service-learning courses implemented through the NSTP classes delivered by the OSCI.

For academic year 2014-2015, the Financial Literacy Program of the School of Management, including Economics and Management Economics majors from the School of Social Sciences, will continue the program. Students from the European Studies Program will be deployed to the Ninoy Aquino International Airport (NAIA)X to be stationed in the Overseas Filipino Workers (OFW) Helpdesk. The Political Science students will be sent to the local government of Taytay, Rizal where they will take part in their grassroots participatory budgeting process for the 2015-2016 fiscal year. While the Development Studies students along with the Management Information Systems students will be sent to Bulacan to conduct the census for a newly transferred marginalized community composed of evacuees from different parts of Metro Manila.

Believing that Collective Impact may be achieved, the ADMU-LS converges with the government to springboard for service-learning opportunities for students and encourage citizen participation. Furthermore, the ADMU-LS intends to engage with more government institutions and other private organizations for service-learning, in the desire to instill being professionals-for-others, a value that the university strongly upholds.

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Promoting environmental sustainability through service learning and community capacity building

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ABSTRACT

Community-based service learning provides opportunity of civic engagement and allow students to make real contribution to people's lives in their own community. Through this service learning subject, the paradox of excess and deprivation, exemplified by abundant food waste and poverty, was addressed through campus-community partnership. Some aspects of empowering pedagogy advocated by Shor (1992) were adopted to facilitate learning experiences which are participatory, problem posing, and democratic. The problem solution projects fostered a dialogic and active learning experience. The learning outcomes showed that students have acquired a change-maker mindset and developed a strong sense of civic responsibility in promoting a sustainable environment. Through multi-disciplinary team work and concerted effort with community stakeholders, students had the chance to develop generic competence in problem-solving, inter-personal effectiveness, and their creativities. The experience also has an impact on their personal values and behaviors. The capacity of the community was enhanced by the solutions co-created by the students and partner organization.

Key Words: Environmental sustainability, Food waste, Service-learning, Problem Solution Project, Community capacity-building

1. INTRODUCTION

Very often, higher education is being criticized for the lack of connectedness between traditional curricula content with the needs of the society. Around the world, service learning flourished in higher education against a backdrop of the call for civic engagement and inter-disciplinary response to community needs. Empirical evidence is abundant to show the positive impact of service learning on academic achievement and other generic competence among college students. Service learning enhances students' learning outcomes, foster a more active citizenry, support a more equitable society; reconnect universities with their local and regional communities (Austin et al, 1999; Benson et al, 2007). The introduction of mandatory service learning is an active response to the mission of the Hong Kong Polytechnic University to nurture graduates who are critical thinkers, effective communicators, innovative problem solvers, as well as commitment to serve mankind. The positive impact of service-learning on personal and interpersonal development, cultural awareness, civic responsibility and personal growth are supported by numerous empirical researches (Astin & Sax, 1997; Brandes & Randall, 2011; Kronick & Cunningham, 2013; Meyers, 2009). Community-based service learning, in particular, could enhance students' awareness of citizenship and serving the society with what they had learnt in class (Morgan, 2001).

Hong Kong is facing environmental challenges of global warming and environmental devastation. Poor air and water quality, over-consumption of food and goods, excessive household wastes all posed threats to the sustainability of our environment. The municipal solid wastes (MSW) issue, in particular, warrants our special attention. We are now sending more than 9,000 tons of solid wastes to the almost saturated landfill and one-third of them are consumable food (Environmental Bureau, 2012).

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Paradoxically, one in five Hong Kong citizens lives on income below the poverty line while about 3500 tons of food waste is disposed of every day. One in four children does not get three meals a day and one in three elderly struggles to meet their basic nutrition needs.

Tackling the food waste issue is top on the policy agenda of the Environment Bureau. In the policy paper published in 2013 “Blueprint for Sustainable Use of Resources 2013 - 2022”, it is the Hong Kong Government’s goal to reduce food wastes by 40% by 2022. To this end, the government encouraged multiple actions to prevent and reduce wastes, including government policies and programmes to incentivize food waste reduction, separation and collection, as well as to provide the necessary infrastructure for recycling and treatment. Among the many proposed strategies, mobilizing community participation is perceived as one of the keys to achieve this goal.

Against this backdrop, a service learning subject was launched to cultivate civic responsibility, social awareness and empathy among undergraduate students through inspiration, reflection and civic engagements in addressing the food waste problem. We also expect students to demonstrate attributes of a critical thinker, innovative problem solver and socially responsible citizens through the service learning experience. We have chosen a locality-based civic organization as our community partner which aims at creating a sustainable community through networking and community capacity building. The short-term goal of the organization is to redistribute consumable food items to low income families in the community, and hence reducing food waste and alleviate poverty at the same time. The long term goal is to achieve environmental sustainability by inducing lifestyle change among major stakeholders in the community. These missions coincide with a major theme of the Green Campus Campaign at the Hong Kong Polytechnic University to reduce food waste, providing a fertile ground for campus-community partnership. Through students’ service projects, the university developed a community-based approach to environmental sustainability through community capacity building. This gave students a chance to demonstrate the relevance of what they had learnt in the university and allows students to make real contribution to people’s lives in their own community.

2. DESIGN AND KEY FEATURES OF SERVICE LEARNING

2.1 Learning Process

Kronick, Cunningham and Gourley 2011 developed a framework for service learning which focus on sensing, reflecting, and acting. Inspired by this framework, this service learning course comprised of three key phases:

a) *Inspiration and input phase* – students were equipped with the necessary knowledge and skills in carrying out the community service, including the exposure to different strategies to handle food waste, skills workshops on creativity, teamwork and service planning and implementation. Inspiration was brought about by exposure to successful experience, agency visits, and sharing of experience by young role models who have made contribution to maintaining a sustainable environment.

b) *Reflection phase* – reflection is an ongoing process throughout the course. Students are encouraged to think more deeply about how the community service/project have challenged and impacted on their learning as well as their personal growth, their critical appreciation of food waste problem in Hong Kong, their understanding of the service recipients, and how they can contribute to resolve the problem with innovative solutions.

c) *Experiential learning and acting phase* – There are two stages of students’ experiential learning. In the first stage, students participated in the collection of vegetables and other food items

from the local wet market and other vendors and distributed these consumable food items to low income families. In the second stage, students worked closely with the partner organization and different stakeholders to identify new strategies to reduce food wastes in the community.

2.2 Pedagogy approach and key features

The teaching and learning approach of this service learning subject is inspired by the critical pedagogy advocated by Shor (1992) to provide empowering educational experiences for students which is participatory, problem-posing, dialogic and democratic.

a) Problem-based learning and co-creation of solutions – Problem solving is described as a higher form of intelligence and the best way to learn about something is to try to change (Lewin, 1935). Service learning using Problem Solution Projects have been shown to be an empowering learning experience for students (Stenhouse and Jarrett, 2012). From their direct service experience, students in this service learning subject identified problems and obstacles which impeded the agency from achieving its goals, such as the lack of community awareness of the food waste problem, inadequate publicity and support from stakeholders, and other logistic arrangements. Based on their interests and strengths, students were given the freedom to propose workable solutions to address these problems. In the process of co-creating solutions, students were encouraged to make good use of their academic knowledge and skills, such as design, marketing, health care and logistics.

b) Participatory and democratic learning process – we maximized students' participation by avoiding a rigid structured service learning which may disconnect from their interests and expertise. Students had more control over their own learning experience since they were free to form their project teams, selected their team leaders, and worked on solutions of their own choices. Through reflective seminars, students engaged in active dialogues with the tutors and the community partners. Constant feedbacks were provided to the project teams on the feasibility and desirability of the solutions proposed by students.

c) Change-maker mentality - In addition to the generic goals of service learning, we are conscious to cultivate a change maker mentality among the students. We believe that our students can become agents of social change if they are inspired by good role model and be given the opportunities for civic participation. Throughout the course, students were encouraged to believe in themselves and the potential impact which they might bring to the community.

3. IMPACTS ON STUDENTS' LEARNING OUTCOMES AND IMPACT ON THE COMMUNITY

The service learning experience did have impact on both students' learning outcomes as well as the community. We gathered quantitative and qualitative evidence from the pre-and-post service learning survey conducted by the university, students' two reflective journals, as well as the verbal feedback collected by the tutor during reflective seminars and a focus group interview conducted three months after the end of the course.

The pre-and-post surveys measured (i) the impact of the Service-Learning (SL) experience on the development of students' generic competencies including interpersonal effectiveness, teamwork, problem-solving and social responsibility, (ii) evaluate students' SL experience, and (iii) collect student feedback and suggestion for improvement on the SL subject. The findings show a statistically significant improvement in two of the four generic competencies measured, including problem-solving and social responsibility. However, interpersonal effectiveness and teamwork have also been improved; though not statistically significant (see Table 1a & 1b).

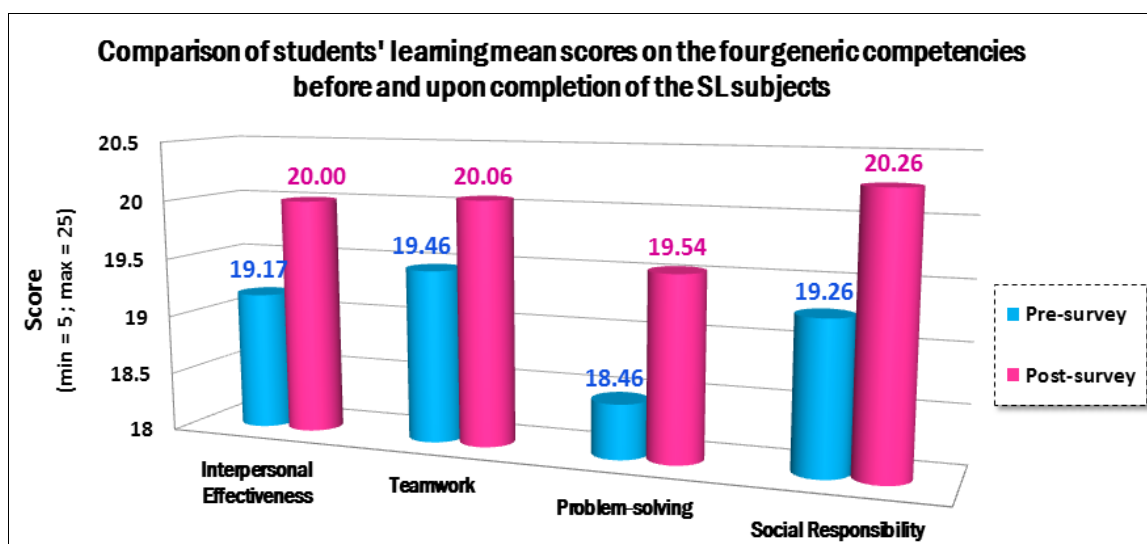


Table 1a – Results of the Pre-and-Post Survey of the service learning subject

Generic/soft skills	Students' SL Learning Status	Mean scores	Differences in mean scores	Sig. 2-tailed	Effect size
Interpersonal Effectiveness (IE)	Pre-SL	19.17	0.829	0.067 (NS)	0.377
	Post-SL	20.00			
Teamwork (TW)	Pre-SL	19.46	0.600	0.107 (NS)	0.290
	Post-SL	20.06			
Problem-solving (PS)	Pre-SL	18.46	1.086	0.023*	0.471
	Post-SL	19.54			
Social Responsibility (SR)	Pre-SL	19.26	1.000	0.020*	0.416
	Post-SL	20.26			

Table 1b – Statistics on the Pre-and-post Survey

* Significance at the $p=0.05$ level; NS = Not Significant

The feelings and thoughts expressed by the students throughout the course echoed with the quantitative results of the pre and post surveys. The following direct quotes from students' reflective journals and the focus group provided more qualitative evidence on their learning outcomes.

Enhanced civic responsibility - through the actual experience of collecting consumable food from the community, students recognized the magnitude of the food waste problem and how low-income families were able to benefit from the food recycling services. They developed a great sense of civic responsibility and realized the importance of a concerted effort by different stakeholders in the society to work towards environmental sustainability.

"I realized that collective effort by the citizens can be very powerful in addressing the food waste problem. We acknowledge the problem, we discuss, and we act! Judging from the volume of food waste we have collected in Hung Hum district, I can imagine how serious the food waste

problem is in Hong Kong and for the rest of the world.” (Student W, Design, Year 2)

“Before I attended this course, I never realized food waste is a problem. From now on, I will try my best to reduce food waste in my daily life and also urge my family and friends to care about this problem. This is our responsibility to reduce food waste and to share food with those in need.I understand that the project nature, or what we do in the service, is not the sole factor contributing to the success of a service project – as it can depend on other key factors; environment, administrative stuff, manpower, and so on, and all these , are actually what can make a service project challenging, but at the same time, interesting.”(Student L, Physiotherapy Year 2)

“The community service we participated really helps a lot in reducing food waste and benefits the needy families. At the same time, the project can also change the attitude of stakeholders in the community towards food wastes, including volunteers, donors and the food recipients.” (Student H, Radiography, Year 2)

Change-maker mentality – students acquired a change-maker mentality through direct interactions with low-income family and singleton elderly who benefitted from the food recycling project, as well as the collective effort of different stakeholders.

“I put the theory into practice through the learning and services. Every people can make a difference to our planet and every people are responsible to make our world better. (Student C, Mainland student, Electrical Engineering Year 2)

“I think the food waste issue can be resolved but it needs the contribution of all stakeholders... every citizen has his/her own responsibility to help addressing the problem since “everyone is a change-maker”. (Student H, Radiography, Year 2)

Improved problem-solving and other generic skills - for many students, the experience of working with students in different academic backgrounds not only created synergy in problem-solving, but also enabled them to polish their team work skills, and to appreciate the strengths of other professionals. The language and cultural barriers were also overcome by a mix of local and mainland students in the team.

“Throughout the course, we worked in teams....my leadership skills, interpersonal skills, problem-solving skills and critical thinking is improved.The learning experience helps me discover my own strengths and weaknesses. I am quite good at coordination and managing people. This sheds light on my long-term personal and professional goals” (Student J, Marketing, Year 2)

“I learned how to work with people with different interests and personalities in the process.For example, my major study is in accounting but my teammates include students from designing as well as the engineering. I learn a lot from my teammates during the working process.This greatly inspired us to think of feasible ways based on our personal strengths and major differences, and then we discussed each way and selected the most innovative solutions to the problem. (Student Y, Accounting, Year 2)

“Also, I have learnt lots of new knowledge and practical skills. I have learnt many professional knowledge of how to reduce food waste and different means to solve the food waste problem...” (Student S, Design, Year 2)

Personal and professional growth - Inspired by the service learning experience, some students were able to gain some insights for their personal growth, future civic engagement and professional development:

“I saw changes in my mindset and behaviors after I studied the course, and I am able to see and do things from an angle that I may not be aware of. Besides all these changes, there are some moments that I also recorded personal growth and reflection for myself.....one thing I gained most and learnt most in this class is, indeed, LOVE. In this service learning course, I saw love between people, people that may not even know each other.....and yet willing to share with those in need” (Student M, Physiotherapy, Year 2)

“As a citizen, I think I have a responsibility to educate my next generation not to waste food and respect the environment. “If possible, in my future profession, I would like to come up with some designs which allow people to grow their own food in their apartment.” (Student Y, Design, Year 2)

“Moreover, this course reminds me that I should not forget our society while I am fighting for my dream. Thus, even if I am busy working in the weekdays, I must spend time to join volunteer works to care our society and our planet. I can become more “humane” rather than just a money earning machine.” (Student W, Financing Service, Year 2)

This service learning subject also has demonstrated its impact on the community. In this service learning subjects, students were able to work closely with our partner organization to achieve its goals - sharing consumable food with needy families in the short-run and reduce food wastes in the long-run. Students proposed workable solutions to enhance the existing food waste collection and distribution process through better logistics, publicity, and volunteer mobilization. On the other hand, pilot community education campaigns were launched in nearby public housing estates to raise community awareness on the food waste problem, introducing practical knowledge and skills to the residents in an effort to reduce food wastes. More importantly, a network of community stakeholders, including local

vendors and shop owners, church, non-profit organizations, Housing Authority and Housing Societies, was build to work towards this common goal. Although this service learning subject may not create substantial impact on the amount of food being recycled, it does strengthen the capacity of the community to achieve long-term environmental sustainability.

To conclude, this service learning subject is an attempt to address the problems of food waste and poverty through campus-community partnership. The community-based approach of service learning created a win-win situation for both our students and the community. Students acquired a change-maker mindset and developed a strong sense of civic responsibility in promoting a sustainable environment. Through multi-disciplinary team work and concerted effort with community stakeholders, students had the chance to develop generic competence in problem-solving, inter-personal effectiveness, and creativity. The service learning experience also has an impact on their personal values and behaviors. The capacity of the community was also enhanced by the solutions co-created by the students and our partner organization. These outcomes echoed with the research findings of Eyler and Giles (1999) that student learning and community benefit should be simultaneous in a well-balanced service learning program.

4. REFLECTION ON PEDAGOGY

The problem solution projects were designed to include the participatory, problem prosing, and democratic choice-making aspects of Shor's empowering pedagogy. To gather more information on the effectiveness of this approach, a focus group interview was conducted three months after the course, attended by ten students. The participants were representatives from the six problem solution project teams and they came from six different academic disciplines.

To the students, the opportunity to choice their own learning experience was very important. The freedom to select one problem from their brainstormed list fostered a dialogic and democratic process of learning. Students had to engage with each other and learnt the art of compromising and democratic decision-making. This was especially the case when the group was composed of students from different academic disciplines, or students from mainland China. Although the students could only implement part of their proposed solutions to address their identified problems, they took pride in what they had done and gained great satisfaction from the actualization of their plans by the community partner. Students, tutors and the agency work together as equal partners to co-create solutions. It was not difficult to find in students' reflective journals that they felt that they could make a difference in reducing food waste in the local community, and appreciated the importance of concerted efforts to create a bigger impact on the environment. In sum, it seems that the process of brainstorming, problem posing and finding solutions did turn out to be an empowering learning experience for the students.

By linking theory and practice, reflection and experimentation, service learning opens up the learning process which can accommodate different learning styles of students. Although this pedagogy approach was well-received by a majority of students, it might not work for a few students who regarded service learning as just another mandatory requirement of the university. Furthermore, a student-centered, participatory approach of learning may imply less control over the learning process by the teachers involved. They must have the readiness to accommodate different learning needs of the students, and to provide timely guidance and support along the way.

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“Healthy Children-Healthy World”: Reducing the Impact of Food Deserts Through Interdisciplinary Critical Service-Learning

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ABSTRACT

The Center for Translational Health Equality (CTHER) at North Carolina Central University supports the Education, Research and Training Core of the National Institute of Health’s P20 MD000175-11 grant. This component of the grant is responsible for recruiting Nursing, Public Health, Foods & Nutrition, Psychology and Education undergraduate and graduate majors (CTHER Fellows) into a training program which seeks to develop, enhance and/or strengthen training activities that prepare them to conduct meritorious research and pursue careers that positively impact health disparities in minority communities. One of the ways in which the grant meets this goal is through implementation of Critical Service-Learning Research in which students design, implement and evaluate an original interdisciplinary project that supports the community. In an effort to reduce the negative impact of food deserts, the “*Healthy Children-Healthy World*,” project was designed to positively impact the healthy living choices of first grade students at an urban, elementary school in Durham, North Carolina. CTHER Fellows implemented over 20 educational lessons in multidisciplinary areas, aligned with the NC Essential Standards for Healthful Living to 50 first graders. Each first grader completed evaluations directed to gain information regarding knowledge of fast food, selection of healthy living choices and content knowledge. The data concluded that while the population’s frequency of fast food visitation aligned with national data, the service learning experience was beneficial for the elementary school children, noting positive responses for selection of appropriate healthy living choices and content knowledge. The research focuses on the impact of the service-learning project on the community.

Key Words: Service-learning, Food Deserts, Multidisciplinary, Healthful Living, Impact

1. INTRODUCTION

The U.S. Department of Agriculture (USDA) reports that as many as 23.5 million Americans live in food deserts (USDA, 2014). The USDA defines a food desert as a “low income census tract where a substantial number of residents have low access to a grocery store,” typically more than one mile from urban neighborhoods and over ten miles from rural towns. This lack of access to nutritious healthy foods within food deserts is likely to have an unfavorable impact on the overall health and diet of an individual, and likely contributes to the risk of developing chronic diseases such as hypertension, type 2 diabetes mellitus (T2D), and obesity (Powell, Slater, Mirtcheva, Bao, & Chaloupka, 2007). Powell et al. (2007) found that a greater number of convenience stores in an area (generally in food deserts) are linked to increased risks for obesity while having better access to supermarkets decreases this risk due to having easier access to fresh produce such as fruits and vegetables. Because food deserts are typically found in low-income communities, Powell et al. (2007) suggest that low-income neighborhoods, where African-American and Latinos reside, have less access to supermarkets than middle-income neighborhoods in which African-Americans and Caucasians reside.

Larson, Story, & Nelson (2009) suggest that location and poverty can be risk factors for poor health. However, Kwate (2008) introduces race as the societal construct that allows fast food restaurants, which are identified as catalysts for the creation of food deserts, to create strong holds within African-American communities. Kwate (2008) argues that segregation produces risk for poor health while inequalities create health disparities due to poverty, unemployment, lack of education, and inadequate healthcare. Food deserts affect millions; where you live defined by

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census tract and zip code greatly matters. The urban city of Durham, North Carolina has a population of 245,475 (U.S. Census, 2013). Ethnic majorities in Durham include, Caucasian (42.5%), African-American (41.0%), and Latino (14.2%). The status of Durham's 0-6 year old population is dismal, noting that nearly half (45.5%) of all children (birth-6) are living in low-income families, defined as "at or below 200 percent of the federal poverty level" with more than one in five young children (22.9%) in Durham living in poverty. Additionally, Durham has consistently produced higher rates of childhood obesity when compared to the North Carolina state-wide rate. In 2012, 23.5% of children were obese, as compared to 15.3%; state-wide while 17.5% of the children in Durham were at-risk for being overweight as compared to 15.7% state-wide. Furthermore, family poverty experienced in the early years is associated with a variety of adverse educational, health and mental health outcomes that impact, transition to and productivity in adulthood (State of the County Health Report, 2013). The current health trends, coupled with the literature regarding interdisciplinary, service learning set the stage for the development of "*Healthy Children- Healthy World*," an interdisciplinary, Critical Service-Learning Research (CSLR) project.

2. CRITICAL SERVICE-LEARNING AND INTERDISCIPLINARY TEAMS

The "*Healthy Children-Healthy World*" project was developed (in part) to provide a more effective and engaged method for exposing behavioral, social and health science undergraduate majors to translational health disparities research and to provide real-world experience to students within their content discipline. Students conducted novel research, on specific aspects of a community problem and developed, implemented and evaluated solutions to the problem. Using a critical service-learning (CSL) pedagogy, students were presented with problems posed by a community partner and collaboratively sought authentic and viable solutions.

Service-learning is defined as a course-based, credit-bearing, engaged educational experience that allows students to: (1) participate in an organized service activity that meets identified community needs and reflect on the service activity in an effort to gain further understanding of course content, (2) develop a broader appreciation of the discipline, and (3) cultivate an enhanced sense of civic responsibility (Daniels, Patterson and Dunston, 2010). Additionally, Mitchell (2008) offers a notable difference between traditional and critical approaches to Service-Learning, citing that service without attention to systems of inequality does not promote long-term student growth and sustainability. While traditional Service-Learning is sometimes offered as charity or "forced volunteerism," and criticized for doing nothing to challenge organized hierarchies of "us vs. them," critical service-learning places an emphasis on community problem solving through critical thinking that raises questions about the root causes of social inequality. For example, a traditional service learning approach might encourage participation in a service activity that provides homeless families with food, while this same issue through a critical lens encourages students to examine and influence political and economic decisions that make homelessness a reality in the first place (Mitchell, 2008). Marullo (1998), promotes CSL pedagogy as a strategy to produce future activists and leaders committed to social justice. Noting that, carefully implemented CSL experiences have the potential to transform generations and ultimately society. Moreover, students who participate in these programs would see themselves as agents of social change, and use the experience of service to address and respond to injustice in affected communities.

While service-learning and critical service learning have been predominately used as teaching practices in teacher education (Daniels, Patterson & Dunston, 2010) its appeal in the behavioral and health science field has grown over the years (Stephenson, Peritore, Webber, & Kurzynske, 2013). A service-learning approach has helped to support the field and student graduates by offering an increased exposure to real world applications, an understanding of social justice and the benefits of civic engagement in community issues (Yorio & Ye, 2012). Current trends demonstrate a rise in research on the benefits of interdisciplinary teams in developing and solving community based challenges. Interdisciplinary service learning is a unique approach that maximizes the values and benefits of partnership. It is an especially appropriate pedagogy for the academic behavioral, social and health sciences, whose missions emphasize teaching students to provide services within the community and to work effectively in teams. A range of health disparities exists within the United States between the population as a whole and underserved groups; and students in clinical, pre-professional programs require competencies in delivering

care to diverse, multicultural groups and collaborating with community members as well as professionals in a wide range of disciplines. Hence, interdisciplinary service learning provides an effective vehicle for helping students acquire the necessary cultural and collaborative skills to improve the health of the public and reduce disparities related to access and health outcomes (Seifer, 2002).

The, “*Healthy Children-Healthy World*” project combines the theoretical underpinnings of critical service learning with novel undergraduate research. Through this pedagogy, students were presented with problems posed by a community partner and were asked to seek authentic and viable solutions. As a result, the project focused on combating the impact of food deserts at an urban elementary school. The primary aim of study was to observe the impact of the “*Healthy Children-Healthy World*” curriculum on decision making of 50 first graders. We hypothesized that the children would exhibit high knowledge regarding fast food and that participation in the lessons would have an 85% positive impact in promoting healthy living choices. While current literature typically focuses on the outcomes of the impact of service learning on the students who complete the service, this research focuses on the impact of critical service-learning on a population. This research seeks to fill a void and further explore the benefits of utilizing this valuable pedagogy.

3. THE PROJECT

The Center for Translational Health Equality (CTHER) at North Carolina Central University (NCCU) supports the Education, Research and Training Core (Ed. Core) of the National Institute of Health’s P20 MD000175-11 grant. This component of the grant is responsible for recruiting undergraduate Nursing, Public Health, Nutrition and Psychology students into a training program to develop activities, which prepare them to conduct meritorious research and pursue careers in health disparities research within minority communities. All training activities reflect research proven teaching and learning theories that provide opportunities for critical service-learning research, community engagement and social justice advocacy. The “*Healthy Children-Healthy World*” project was a collaborative effort between CTHER, the School of Education and a local elementary school. The grant, entering into the third year of a five-year cycle has recruited over 20 non-STEM undergraduate and graduate students (referred to as CTHER Fellows). Under the guidance of two professors from the School of Education, thirteen students from different disciplines (Nursing, Public Health, Child Development, Food and Nutrition, Education, and Psychology) worked collaboratively to address the negative effects of food deserts on the healthy lifestyle choices of first graders at a local elementary school. Over 50 hours during the semester were devoted to learning about and understanding the relevant issues. Simultaneously, students collaborated with the elementary school staff and administration to design an intervention to increase the healthy living activities of the students. The school community identified four major areas of concern for the students which they felt negatively affected the student population; (1) chronic absenteeism due to sickness, (2) frequent fast food consumption, (3) lack of knowledge of healthy eating, and (4) lack of knowledge of general healthy choices. These concerns also aligned with the research on the most common affects related to populations who live in food deserts. Following the recommendations of school administration and faculty, the selected topics included a focus on, smoking prevention, germ and stress busting and healthy eating. Decidedly, the intervention was a week’s focus on healthy living in which the CTHER Fellows taught a series of lessons during the school day that were aligned with the goals and objectives of the North Carolina Essential Standards for Healthful Living – Health Education learning standards (Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communications and Relationships, Nutrition and Physical Activity, Alcohol, Tobacco, and Other Drugs). Additionally, each lesson was developed through an interdisciplinary process to ensure that activities and solutions offered multiple perspectives in an effort to garner successful impact. The CTHER Fellows offered the relevant content knowledge in collaboration with students from the teacher education program to ensure that the lessons were engaging, developmentally appropriate and successfully incorporated the North Carolina Essential Standards for learning. For this component of the project, CTHER partnered with students who were enrolled in EDU 3800: Healthful Living Education in Elementary Schools, which focuses on instructional planning and how to incorporate healthful living practices and physical movement into their classrooms. The curriculum places an emphasis on diverse learners and learning styles in the classroom. The

pre-service education students (“education buddies”) provided instructional feedback to the CTher Fellows, and co-designed the presentation of the lessons to support increased understanding of the material. Each group then demonstrated their activities and taught the “lessons” to each other. The collaboration with the pre-service education students supported the instructional design and planning of the lessons as well as provided the opportunity for all of the students to practice real world applications of “teaching” their content to adults and elementary students. During the implementation phase, the education faculty and the education “buddies” were available to provide additional support.

This project incorporated four recommended components of successful service learning (Bringle and Hatcher, 2009):

- **Preparation:** Multiple assigned and optional readings focused on the community issues and institutional barriers (e.g., access to health care, food deserts and food insecurity, bio-ethics, and critical race theory). Faculty and students generated the selected literature and multimedia. Each student, working in a team of 3-4, designed a lesson plan in their discipline and taught other students how to implement the lesson.
- **Action:** Student teams taught 50 first grade students; ages 6-7 at an urban elementary school located less than one half-mile from North Carolina Central University. The lessons were taught during the school day. The classroom teacher was present, but the students had full responsibility for implementation of the lessons.
- **Reflection:** Students completed a series of journal reflections that allowed them to comment on personal, social and content connections, new understandings and/or challenging questions. Reflections were written using formal Qualitative Reflection Journals and also through the informal use of social media/Facebook. The reflections were discussed during the daily debriefing groups that were held at the end of each day in the field.
- **Assessment:** In an effort to assess the impact of the CSLR on the population, the first grade students participated in baseline evaluations and post content surveys.

A total of 20 lessons were developed through interdisciplinary collaboration between academic specialties; however, this paper only reports the findings, data and discussion of the baseline evaluations and the post-content surveys of the lessons with a nursing education/public health focus; Smoking Prevention and Germ Busters. The school administration deemed these issues to initially be the most important factors related to student achievement, due to high rates of absenteeism and childhood obesity. The selection of these foci are also supported by the CDC which suggests that when children do not have access to healthy foods, they are more likely to consume nutrient dense foods (“junk” and fast foods), which put them at risk to health problems and chronic diseases such as obesity, type 2 diabetes, and certain cancers. Additionally, children who live in poverty are more likely to miss school due to asthma related illness and chronic sickness, possibly related to lack of proper hand washing (Center for Disease Control and Prevention, 2014). Furthermore, they stress that curriculums, which expose children to healthy choices must be developed, implemented and emphasized. Table 1 provides an overview of these objectives and activities.

Topic	Objective	Activity
Smoking Prevention (Nursing/Public Health Content) Teaching effects of smoking and second hand smoke and how it can harm their bodies in different ways.	1. Identify the harmful effects of smoking 2. Identify healthy and non-healthy choices 3. Identify the difference between a healthy lung and an unhealthy lung	Lesson #1: Rhyming poem and coloring activity Lesson #2: Brainstorming Lesson #3: Coloring activity- Lesson #4: Healthy Choices

		Lesson #5: Art & craft activity- healthy lung/unhealthy lung models
Germ Busters (Nursing/Public Health Content) Teaching the children the harmful impact of germs and ways to correctly eliminate germs from their bodies.	1. Identify what germs are and how germs cause illness. 2. Learn and know the importance of hand washing and dental hygiene to prevent sickness.	Lesson #1: Hand Washing Lesson #2: Germinator Coloring Lesson #3: Brushing Teeth Lesson #4: Happy/Sad Tooth

TABLE 1: "HEALTHY CHILDREN- HEALTHY WORLD:" NURSING EDUCATION LESSON OVERVIEW

4. METHODS

The target elementary school was selected for its location in an urban distressed census tract (Nichol, 2004). Furthermore, Templeton (2013) discovered that this same tract had a significant increase in childhood poverty rates and households that were headed by single mothers, rising from 48% to 55% and 61% to 66% respectively over five years. The CSLR project population was first graders (n=50). The majority ethnic demographics of the students at the school are African Americans (80%) and Latinos (16%) (GreatSchools, 2014). Nearly the entire school population receives free or reduced lunch, which classifies the school as a Title I school, under the Elementary and Secondary Education Act of 1965.

A convenience sample was used in this descriptive study, which employed age appropriate questionnaires and evaluations. Institutional Review Board approval was obtained for all methods. Two distinct surveys were administered. Survey 1 (baseline) was administered prior to any lessons being taught and offered self-reported information regarding the children's familiarity of fast food restaurants and where their families frequently purchase food (e.g., grocery store or fast food restaurant). Survey 2 was administered at the end of each implementation day. The children were asked to complete evaluations that contained multiple questions about the content that they learned while participating in the lessons. This evaluation provided the baseline data regarding knowledge retention and decision-making for year one of the four-year grant cycle.

5. FINDINGS AND DISCUSSION

5.1 Fast Food Consumption

Kwate (2008) reported that minority neighborhoods (specifically African American) are "actively sought" by fast food companies compared to affluent and/or Caucasian neighborhoods. These neighborhoods are comprised of a low socio-economic status (SES) population, coupled with community barriers that characterize food deserts such as urban or rural settings, with insufficient access to healthy, affordable foods. Unfortunately, these neighborhoods are fraught with a great demand; the need for healthy foods but returned with an excessively cheap supply of fast food. To gain a baseline of the population's fast food habits, the first graders were asked to select the option that best reflected where their families frequently purchased food. The data revealed that 57% (n=45) overwhelmingly purchased food from fast food restaurants. Table 2 depicts the population trend to purchase food from convenience stores in food deserts and high poverty areas.



Table 2: Where does your family purchase food?

This trend is consistent with previous research, which reported the disproportionate prevalence of fast foods restaurants in low-income, minority neighborhoods as compared to higher-income and predominately white neighborhoods. Insufficient access to healthy foods often leaves residents of low-income, minority neighborhoods with little or no options in food selection. As a consequence of this dilemma, high-density foods are consumed more often than nutrient rich foods (Kwate, 2008). Reisch et al (2013) assert, that the television viewing habits of children living in low SES, and minority neighborhoods exposes them to fast food advertisements more than their white counterparts. This prompts and promotes an appetite for fast food, which in turn, leads to an increased risk of childhood obesity and other chronic diseases related to these types of diets. The information offers that the study's population is more frequently exposed to nutrient dense foods and previous research has shown that children's diets largely imitate their parent's diets (Reisch et al., 2013). This information is important to this study as it provided a criterion of reference to target the interventions.

5.2 Smoking Prevention and Germ Busters

Children exposed to secondhand smoke have a higher likelihood of having numerous health problems in childhood. Some of the health issues that arise as a result of this exposure are "frequent and severe asthma attacks, respiratory infections, ear infections, bronchitis, and pneumonia" (Health Effects of Secondhand Smoke, 2014). These children are more likely to miss two or more weeks of school per year as a result of these diseases (School Absenteeism and Children's Health, 2011). Furthermore, children who miss more than two weeks of school per year are rated as having fair to poor general dental health. These children were also more likely to experience more dental pain and perform poorly in school (Jackson, Vann, Kotch, Pahel & Lee, 2011). Tables 3 and 4 highlight the responses to the Smoking Prevention and Germ Busters' lessons. The outcomes note that, 93% of the respondents (n=41) were able to identify a "healthy lung," and 78% were able to name "two reasons why smoking is not a healthy choice." A notable statistic also offered that 85% of the respondents (n=41) positively stated, "I can make healthy choices."

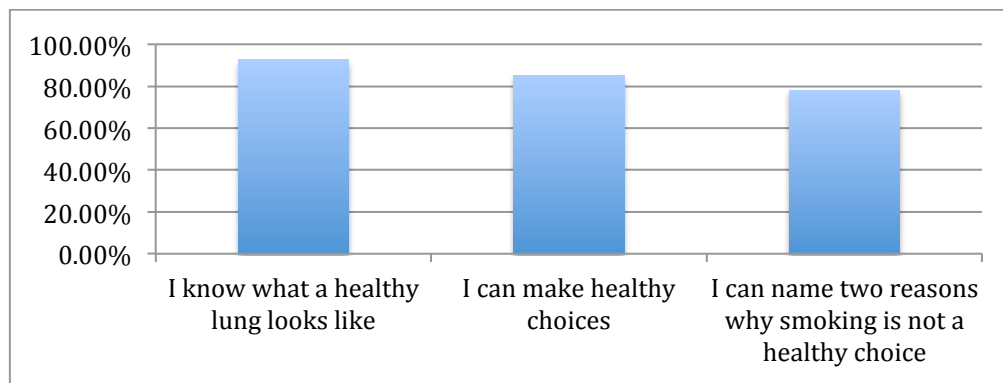


Table 3: Smoking Prevention Outcomes

The data collected during the post intervention evaluation showed that the majority of the children know when (97%) and how (100%) to wash their hands properly to help prevent the spread of germs. Ninety-six percent reported that they know how to keep their teeth healthy (Table 4).

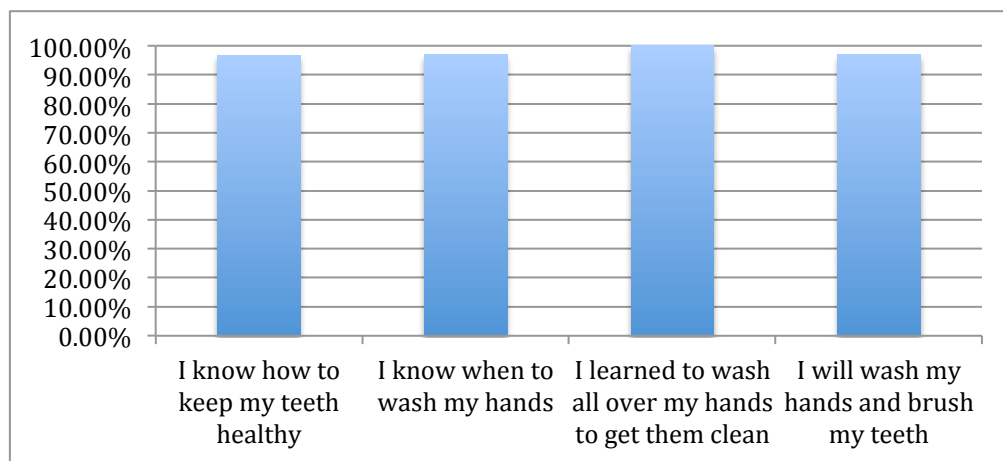


Table 4: Germ Busters' Outcomes

Moreover, 97% of the population (n=46) declared that, "I will wash my hands and brush my teeth." These outcomes are encouraging as the CDC reports that hand washing education and access to soap in schools can help improve attendance. Teaching children how and when to keep their hands clean is an important step to take to avoid getting sick and spreading germs to others. Furthermore, this type of education can also help to reduce respiratory illnesses by "21%" (Show Me the Science, 2013).

6. CONCLUSION

Unhealthy living practices affect millions of Americans daily and are most detrimental to young children of low-income and predominately minority neighborhoods. Insufficient access to fresh fruit and vegetables, places this population at risk for hypertension, type 2 diabetes mellitus, and obesity. The *"Healthy Children-Healthy World"* service-learning project was developed in an effort to combat these potential outcomes. The aims were two-fold: (1) to provide university students with an applied learning experience that would positively impact social justice advocacy and (2) to teach healthful living lessons to first graders in a local urban elementary school located in a food desert. The latter aim focused on teaching options for healthy habits food choices. The results reflected consistent findings with previous studies (Kwate, 2008, Powell, 2007) that reported the prevalence of fast food restaurants and lack of supermarket availability in low-income, predominately minority neighborhoods. The preliminary data from program evaluations suggested that the curriculum and lessons positively influenced the elementary population. Some limitations of the study include the convenience sample. Although the sample met the aims of the study, it limits the generalizability. Likewise, the small sample size may threaten the internal

and external validity of some findings. Future studies may want to include additional grade and/or age levels. This would require revisions to the curriculum to support developmentally appropriate teaching and learning strategies. Furthermore, the methodological design should include both formative and summative evaluations to assess content knowledge at multiple intervals. It is important to note that, the current study reflects data from the first year of a multi-year grant and offers important information to expand the literature on the ways in which service-learning can positively impact young children. Forthcoming data for years 2-4 will address the limitations and provide additional information on the impact of this project. Societal change starts young, “it is not what you do for your children, but what you have taught them to do for themselves that will make them successful human beings (Landers, 1975).” The message is clear – addressing the impact of food deserts will take “choice architects” (“artisans” who guide children to make healthy choices and habits) throughout the community to overcome this social injustice (Reisch et al., 2013).

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School Health Partnership in Service Learning: A Hong Kong Experience

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ABSTRACT

Background: Unlike traditional classroom teaching, service learning programs provide new platforms for students to learn and apply knowledge while serving people. Because students are required to link the knowledge acquired from a service learning course with the process of service through writing reflective journals, service learning actually acts as a bridge between the classroom environment and society. **Methods:** In order to examine the effectiveness of service learning teaching approach, this study aims at assessing students' improvement on four selected domains (interpersonal effectiveness, teamwork, problem solving, and social responsibility) before and after taking a service learning course. **Results:** The students showed significant improvement ($p < 0.01$) on all the four domains after completing the course. **Conclusion:** This study demonstrated the effectiveness of the service learning model in higher education. In contrast to a traditional lecture setting, service learning can also improve students' abilities in different dimensions. Service learning, which is an innovative and low-cost teaching method, is not only suitable for Western countries, but also for Chinese society.

Key Words: Hong Kong, Service learning, School Health

1. INTRODUCTION

Unlike traditional classroom teaching, service learning programs provide new platforms for students to learn and apply knowledge while serving people. Because students are required to link the knowledge acquired from a service learning course with the process of service through writing reflective journals, service learning actually acts as a bridge between the classroom environment and society (Heo et al., in press). Contrary to misconceptions, service learning is not the equivalent to volunteer work or even "forced volunteering" (Brail, 2013). Service learning encompasses different practices and interpretations. In a structured curriculum, service learning engages students in more

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than just volunteer work, though students are mostly required to initiate volunteer actions in order to fulfill the course's requirements. The discourse of the meanings of the service and the process of learning is essential in service learning that facilitates the extended learning and beyond practice.

All parties involved in a service learning experience should have a conscious of gaining something from the rendered service. Service learning can therefore be regarded as a platform for students to develop interpersonal skills and establish relationships by serving people in a community. Different scholars and organizations have attempted to define service learning (Alliance for Service Learning in Education Reform, 1993; American Association of Community Colleges, 1995; Jacoby, 1996; National Youth Leadership Council, 2012). This study uses The Hong Kong Polytechnic University's formal definition of service learning: "an experiential learning pedagogy that integrates community service with academic study and reflections to enrich students' learning experience, in order to achieve the intended institutional or program learning outcomes" (Shek and Chan, 2013a). Service learning approaches are popular in western countries among different disciplines such as tourism/sports management (Heo et al., in press), geography (Brail, 2013; Cope, 2009), nursing (Laughlin et al., 2010), medicine (Buckner et al., 2010), and other health professions (Fries et al. 2013). However, service learning is still a relatively new concept in Chinese societies such as in Hong Kong (Shek and Chan, 2013b). In health related academic journals, only six articles were identified in the PubMed database by using the keywords "service learning" and "Hong Kong" (Chung, 2001; Shek and Chan, 2013a; Shek and Chan, 2013b; Leung et al. 2012; Ngai, 2006; Ngai, 2009).

The Office of Service Learning (OSL) of the Hong Kong Polytechnic University notes that service learning courses at the university level must emphasize the importance of civic responsibility and social justice in addition to traditional core focuses such as critical thinking, problem solving, professional knowledge, and career development (2014a). Starting in 2011, Hong Kong's undergraduate curricula changed from a 3 year to a 4-year track. The OSL required Hong Kong universities to include service learning as compulsory credit-bearing courses for all undergraduate students under this new curriculum (Office of Service Learning, 2014b). This added component also contributes to a holistic learning curriculum and an all-round development in higher education.

The students who participated in this study are the first and second waves of university students who took the service learning course in the new 4-year undergraduate curriculum. Although these university students came from different non-health major disciplines, the course's roots were in school health. The title of the course was "Collaborative Care in School Health and Safety" and was organized by the School of Nursing of the Hong Kong Polytechnic University. The course was developed based on the HEARS framework, an acronym which stands for 1) health for all students and staff; 2) environmental consciousness for green and safety; 3) affordability of cost and time; 4) resources from professionals and information; and 5) sustainability of school partnership.

In order to fulfill the first component of HEARS, the students started the program with school wide fitness activities held after lunch and included the participation of all service school students and staff members. The activities included playing basketball, jumping rope, and hula hooping. In addition, health stations were set up on-site for providing health information and carrying out activities related to school health and safety. For environmental consciousness and safety, senior students from the service school were partnered with the university students to organize games and activities for junior service school students; these games and activities promoted school harmony and safety awareness. For affordability of cost and time, the program was integrated into the service school's subject curriculum; by coordinating with English teachers, university

students were able to deliver health talk in class. Free pocket-sized info cards and pamphlets pertaining to health education were provided by the Department of Health and World Health Organization. These no-cost assets fulfilled the resources component. And lastly, sustainability was demonstrated by sharing the program plan and teaching materials with the service school for its own use and follow-up. Since new students begin school every year, it is a naturally sustainable partner, assuming that a high-quality service program can be provided and maintained.

In general, a service learning course has three objectives: 1) Students' knowledge about contemporary and fundamental issues concerning school health and safety will be increased; 2) Students will promote the importance of health and safety within the school community and assist schools to become Health-Promoting Schools; and 3) Students sense of social responsibility will be developed through service participation and reflection on the collaborative care experience. This course demonstrates that health-centered service learning courses are also suitable for non-health majors.

Multiple teaching and learning methodologies were adopted in order to achieve the above teaching objectives. In general, students were required to work as teams to address the fundamental and contemporary issues of school health and safety. Through the services they performed, students learned the practical applications of their studies. Students also took on active citizenship roles that contributed to the health of the school's community. Particularly, the following four means were adopted for the course: 1) Lectures and tutorials facilitate the application of the subject matter and related readings to school health practices. Students will apply what they learn about improving health situations and safety issues in the school environment; 2) Students are provided with online learning materials. A web-based learning platform will be available for learners to clarify concepts as well as to reinforce peer-sharing and learning; 3) Students will provide health services for schools through team participation. Students will have opportunities to develop social communication and teamwork skills as well as their individual roles as contributors to society; 4) Reflective writing: students will describe and relate the process of the changes (if any) introduced by their service to the school environment, work relationships, attitudes, and perceptions of health and safety issues and the work plan.

More information about the course content can be found from the subject description form (<http://sn.polyu.edu.hk/filemanager/common/programme/syllabus/SN2S01.pdf>) and music album (http://sn.polyu.edu.hk/filemanager/download/SN2S01_SubjectSynopsis.ppsx) for the course.

Five learning outcomes were expected from students upon course completion. 1) Safety issues of the school environment and food choices will be addressed; 2) Healthy behaviors and balanced lifestyles of children and adolescents will be reinforced; 3) Skills for communicating with team members and people in their community will be acquired; 4) Roles and responsibilities both as professionals in their chosen disciplines and as responsible citizens will be reflected upon; and 5) The essence of service learning will be appreciated and they will be motivated to serve the community with a stronger sense of social responsibility.

Currently, a significant amount of research has attempted to demonstrate the effectiveness of service learning through qualitative methods such as analyzing students' reflective journals (Brail 2013) or conducting focus group interviews (Shek and Chan, 2013b). These methods have the advantage of being able to obtain in-depth information related to the achievement of learning outcomes. However, stronger supporting evidence can only be obtained by conducting a pre-post survey design (Polit and Beck, 2014). Students may claim they have achieved all of the intended learning outcomes in their

reflective journals (in order to ensure they are rewarded with higher academic grades) when these may not be entirely accurate assessments. In contrast, the students' abilities will be assessed both before and after they have completed the course. A pre-post survey design ensures a greater objectivity of the assessment.

In order to obtain stronger evidence for proving the effectiveness of a service learning teaching approach, this research aims at using pre-post surveys to objectively assess student development in relationship to the learning outcomes. Traditional subjective approaches (e.g. analyzing reflective journals) will also be used.

2. METHODS

2.1 Participants

In this study, 81 undergraduate students were enrolled in a service learning course. These students' majors were from a variety of fields, including accounting, hotel and tourism management, design, social policy and administration, and industrial system engineering. Before and after completing the course, a questionnaire titled "Service Learning Survey" (SLS) was given to the students for assessing their overall development from the course's beginning to end. In addition, these students' reflective journals (written after completing the program) were also collected for analysis.

2.2 Instrument

The SLS was originally developed by the OSL of The Hong Kong Polytechnic University. It consists of 32 items for assessing students' overall learning experience (8 items; Table 3), generic/soft skills (20 items; Table 3), and qualitative comments on the program. The generic soft skills include four domains: interpersonal effectiveness, teamwork, problem solving, and social responsibility. Each domain has five questions, and each question has five options ranked from "always" to "never," and is scored from 5 to 1 respectively. The internal consistency of the SLS was tested using Cronbach's alpha on the first wave of students before the course started. The alpha values for the four domains (i.e. interpersonal effectiveness, teamwork, problem solving, and social responsibility) were 0.67, 0.77, 0.83, and 0.85 respectively, values which are generally considered to be high enough for practical use (Moss et al. 1998).

2.3 Data analysis

Descriptive statistics were used to illustrate the students' background characteristics. Paired t tests were used for comparing the students' post-program development on the four generic soft skills. All analysis was done by using SPSS 20, and the significant level was set at 0.05.

3. RESULTS

3.1 Basic characteristics of the service learning students

Table 1 shows the basic characteristics of the two waves of service learning students. The first wave of the students included freshmen (25; 31%), and the second wave students were in their second year of university (56; 69%). The majority had prior volunteering service experience (65; 80%). One-fourth of them had more than one year of voluntary service experience. A detailed breakdown can be found in Table 1.

Table 1 Basic Characteristics of the Service Learning Students (N=81)

Basic Characteristics		Total	
		N=81	%
Year of study	One	25	31
	Two	56	69
Prior voluntary service experience	Yes	65	80
	No	16	20
Length of voluntary service experience	None	16	20
	Less than half year	24	30
	Less than 1 year	21	26
	More than 1 year	20	25

3.2 Reason of taking the service learning course

The two most popular reasons for taking the course were, “I believe it will broaden my horizons in understanding the life of the underprivileged people inside/outside of Hong Kong” (35; 43%); and “I want to contribute to society” (35; 43%). A detailed breakdown can be found in Table 2 below.

Table 2 Reason of taking the service learning course

Reasons	Total	
	N=81	%
1. I believe it will broaden my horizon on understanding the life of the underprivileged people inside/outside Hong Kong	35	43
2. I want to contribute to the society	35	43
3. I want to help others in need	32	40
4. To better communicate with others	32	40
5. To develop my problem solving skills	25	31
6. To develop my teamwork skills	24	30
7. I was invited by my friends/teachers	22	27
8. It is part of my course requirement	8	10
9. Others	4	5

3.3 Overall learning experience after taking the service learning course

Table 3 below is about the students' overall learning experience after taking the service learning course. The results show that most (46; 90%) agreed they applied professional knowledge/skills that they learned from class during their service learning activities/projects (item 1). Moreover, over 85% of the students (44) expressed that they treasured the learning experiences throughout the activities/projects (item 2). Nearly all of them (50; 98%) agreed serving needy people is meaningful (item 4), and over two-thirds (35; 69%) agreed that the project allowed them to serve needy people in the district for a longer period (item 3).

Over four-fifths of the students (43) believed that they learned better from the service learning activities/projects than traditional classroom learning modes (item 5). Moreover, 88% (45) agreed that the activities/projects were well-prepared and well-organized (item 6). 79% (40) said they will participate again in service learning activities in the future (item 7), and 80% (41) said they will recommend friends or classmates to participate in service learning activities (item 8).

Table 3 Overall learning experience after taking the service learning subject

Overall Learning Experience (n=51)	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I applied the professional knowledge / skills that I learnt from class at the service learning activity / project.	4 (7.8)	42 (82.4)	4 (7.8)	1 (2.0)	0 (0)
2. I treasured the learning experience throughout the activity / project.	14 (27.5)	30 (58.8)	7 (13.7)	0 (0)	0 (0)
3. The project has allowed me to serve the needy people in the district for a longer period.	6 (11.8)	29 (56.9)	15 (29.4)	1 (2.0)	0 (0)
4. I agree that it is meaningful to serve the needy people.	18 (35.3)	32 (62.7)	1 (2.0)	0 (0)	0 (0)
5. The activity/project was well prepared and organized.	9 (17.6)	34 (66.7)	8 (15.7)	0 (0)	0 (0)
6. Generally speaking, I learn better from the service learning activity / project than traditional classroom learning mode.	11 (21.6)	34 (66.7)	6 (11.8)	0 (0)	0 (0)
7. I will participate in service learning activities in the future.	11 (21.6)	29 (56.9)	11 (21.6)	0 (0)	0 (0)
8. I will recommend friends or classmates to participate in service learning activities.	14 (27.5)	27 (52.9)	10 (19.6)	0 (0)	0 (0)

3.4 Post-program changes in generic/soft skills

Table 4 shows the results of the paired t-test for assessing the students' development in the four domains following completion of the service learning course. Because some students dropped out of the program or did not complete the post-test questionnaire, only 44 of the 81 students were included in the pre-post comparison. A significant development was observed in all four generic/soft skills, which were (1) interpersonal effectiveness ($p < 0.001$); (2) teamwork ($p < 0.001$), (3) problem solving ($p < 0.01$), and (4) social responsibility ($p < 0.001$).

Table 4 Post program change on the Generic/soft skills (n=44)

Generic/soft skills	Students' service learning (SL) Status	Mean scores (SD)	Differences in mean scores	p-value
Interpersonal Effectiveness	Pre-SL	18.43 (2.40)	1.95	<0.001***
	Post-SL	20.39 (2.27)		
Teamwork	Pre-SL	19.16 (2.36)	1.41	<0.001***
	Post-SL	20.57 (2.14)		
Problem Solving	Pre-SL	18.61 (2.39)	1.27	0.003**
	Post-SL	19.89 (2.38)		
Social Responsibility	Pre-SL	18.77 (2.71)	1.59	<0.001***
	Post-SL	20.36 (2.27)		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Particularly, different students also mentioned their improvement on each of the four aspects in their reflective journals. The following sections contain direct passages taken from various students' journals.

Interpersonal effectiveness

In this service learning subject, leadership skills and inter-personal skills are the major skills I have learned. Truth to be told, it was absolutely difficult to work with a group of people who are unfamiliar and coming from different departments at the very beginning; but our effective cooperation could be a consequence of sharing a same goal and conviction in this community service programme. Cooperating with other members is definitely a good way to train one's inter-personal skills, as he or she has to receive different comments and suggestions given by the teammates. After working with my groupmates in these weeks, I learned more in how to respect others' opinions and views, and this social skill allows me to fit in a group setting, and every comment could be a precious source and inspiration.

Teamwork

I believe my team working [sic] skills can be enhanced. Take our group as an example, members are from different backgrounds and this may have caused different problems. Some of the members may be rather silent and tend to follow others' suggestions than expressing their own ideas. However, for some members, they may be rather emotional. They may find it hard to accept criticisms [sic] from others or even disagreeing [sic] people in an emotional manner. This has greatly affected the discussion progress and the team spirit within the group. In response to this, we tried to talk to the person and encourage them to control their emotions during the discussion. Through this experience, I believe my team working and management skills can be enhanced.

Problem solving

At the first time for giving talks in the service school, we encountered a time crash and also there was a communication problem happened [sic], as we did not know that the class was expanded from one to three classes. At first I was quite panic [sic] as we had to divide the talks and duty as to fit in the arrangement from the schoolteacher. Fortunately we tackled the problem by dividing our teammates into three classes and the talks still ran smoothly. It is thankful [sic] that we applied the problem solving skills and communication skills to tackle this kind of real-life and unexpected problems [sic].

Social responsibility

I have taken the first step as an [sic] service-learner, I hope I can adopt the experience I gained this time, further display them [sic] in a different aspect, such as in my major of Social Sciences and try my best in making [sic] an influence on more people.

4. DISCUSSION

Clearly, the results obtained in this study are very promising. Faced with a small sample size (N=44), the power of the statistical test is expected to be very low (Ellis, 2010). However, significant developments can still be observed among the four primary learning outcomes. In her reflective journal, one of the students wrote about her overall development after taking the course, "Along the service planning process, I acquired and improved my abilities in leadership, communication and managing whereas the servicing experience has promoted my willingness in serving the community."

The above positive results are also in line with the positive results obtained from other service learning studies, although several only had qualitative results based on

reflective journals (Heo et al., in press; Brail, 2013). This study provided further evidence for supporting the implementation of service learning courses in Chinese communities. Such objective evidence could not be obtained merely by analyzing reflective journals, as researchers may question if students are claiming they have achieved the learning outcomes in the reflective journals primarily to receive a high grade.

5. LIMITATIONS

This study has two major limitations. First, the design of the study lacked a control group for comparison. The improvement observed in this study must still be validated, as such improvement could also be observed in other courses with traditional settings. Without a scientific comparison, it is impossible to know how much better service learning is than traditional classroom courses. Second, the assessment in this study was only limited on the students' side. The spirit of service learning is to serve society; ideally, the targets of this service should be assessed as well.

6. CONCLUSION

This study demonstrated the applicability of the service learning model in higher education. In contrast to a traditional lecture setting (which only focuses on delivering knowledge to students), service learning can also improve students' abilities in different dimensions (e.g., interpersonal effectiveness, teamwork, problem solving, and social responsibility). Service learning, which is an innovative and low-cost teaching method, is not only suitable for Western countries, but also for Chinese society. With one-fourth of the world's total population, the further development of service learning could greatly benefit China and its people.

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Session 8

Learning & Assessment

An Experiential Approach to Developing Teachers' Understanding of Service-Learning

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ABSTRACT

This paper describes an experiential approach to developing teachers' understanding of service-learning in a summer 2014 staff development course. Successful applicants spent up to eleven days in Cambodia with a group of almost one hundred people involved in service-learning projects for three different subjects in three discipline areas. These teacher-participants observed and reflected upon the activities of almost 90 students and six teachers. The staff development course topics and structure are described, followed by participating teachers' reflections including a) what they learned, b) benefits to students and c) advice as well as d) cautions to other teachers of service-learning subjects.

Key Words: Service-Learning, staff development, teacher development, courses for teachers, teacher reflections

1. INTRODUCTION

As of the 2012-2013 academic year all universities in Hong Kong changed over from three-year to four-year university degree programs, with a corresponding reduction of secondary schooling from seven to six years. A main aim of the Hong Kong government's decision to move to the new "3+3+4" curriculum structure was to enable "higher education institutions [to] be in a better position to provide a balanced education to their students, through an integrated 4-year undergraduate programme, that allows for a broader knowledge base to support specialised learning" (Education and Manpower Bureau, 2005, p.12). There is also a growing international trend of universities accepting a role in educating students to become socially responsible global citizens (Andrzejewski & Alesso, 1999; Campus Compact, 1999; and UNESCO, 2009).

In response to these local and international aims for higher education, at The Hong Kong Polytechnic University (PolyU) a new policy was instituted requiring all students to complete one three-credit subject that has been accredited as a service-learning subject as part of the new four-year undergraduate curriculum.¹ The University adopted a definition of service-learning as described by Furco (1996) which stresses a balance between service and learning in which both the service recipients and the students benefit. As described in Chan, Ngai, Yuen and Kwan (2013) these subjects must be academic in nature and to qualify for accreditation must: a) present clear academic objectives and student learning outcomes, b) incorporate a significant amount of service activity (typically 40-45 hours), and c) contain a rigorous process for student reflection and assessment.

¹ See Hong Kong Polytechnic University (2011) Distinctive Features of Four-year Curriculum. <http://4yc.polyu.edu.hk/featureII.html> (Accessed 28 July, 2014).

The Hong Kong Polytechnic University is one of the largest universities in Hong Kong admitting approximately 2800 undergraduate first-year students each year. In order to fulfill the new service-learning subject requirement, 60-70 subjects have to be created. This represents a substantial change from the previous situation in which service-learning was conducted only as an extra-curricular activity by interested teachers for a small percentage of students who participated on a voluntary basis. The service-learning requirement is being phased in with subjects first piloted in 2011-2012 and the number of accredited subjects has grown to over 50 as of June 2014.²

Preparing for such a large change to the University curriculum has required effort in a range of areas including developing and approving new policies, establishing relevant working groups and committees, disseminating information on the change and providing central support in both service-learning expertise and funding. Staff development is also critical to supporting this change as few teachers are familiar with developing, implementing and assessing service-learning subjects.

A major challenge is to help teachers to not only understand the University's service-learning policies, but to also effectively implement accredited service-learning subjects. This challenge is all the greater as service-learning is a form of experiential learning, which is an approach to learning that relatively few Asian university teachers have experienced themselves as students or commonly use in their own teaching. It stands to reason then, that in addition to "talking about" service-learning teachers would benefit from a "hands-on" approach that would allow them to observe and participate in a service-learning subject. The focus of this paper is on an experiential approach to developing teachers' understanding of service-learning that was carried out in the summer of 2014. The remainder of this paper will present the staff development course aims and description, share participating teachers' reflections and conclude with lessons learned.

2. STAFF DEVELOPMENT COURSE TOPICS AND STRUCTURE

The staff development experience was advertised as "a unique summer course" inviting teachers to "learn while involved in projects being carried out by University students under supervision of teachers experienced in service-learning." Successful applicants would spend up to eleven days in Phnom Penh, Cambodia with a group of almost one hundred people involved in service-learning projects for three different accredited subjects in the discipline areas of computing, hotel management and optometry. There were almost 90 students, six teachers across the three subjects and five additional support staff. Two of the subject teacher-leaders each had more than ten years of experience in service-learning as well as being heavily involved in the establishment of the service-learning requirement at the University. One support staff member had expertise in curriculum development and would serve as the course coordinator. This context was selected for the course in the belief that it offered a varied and rich immersion experience in which the participants would be able to observe service-learning projects being conducted across a range of discipline areas and supervised by a number of teachers, each with his or her own "style". Teachers from any institution

² A listing of approved subjects is available at http://sl.polyu.edu.hk/04_approved_subjects.html

worldwide were welcome to apply and there were numerous enquiries. However, the final enrollment in this pilot course involved three teachers from the University.³

Each of the three teacher-participants was selected on the basis of an application in which they indicated their current level of involvement in service-learning, their reason for attending and what they wished to achieve during the course. All of the accepted teacher-participants held advanced degrees in their area of expertise, had more than ten years experience in their field as well as more than ten years teaching experience and had worked at the University for at least five years. One teacher had just finished offering an accredited service-learning subject for the first time, another teacher had submitted a service-learning subject proposal and was hoping to be approved, and the third was expecting to become involved in service-learning in the department.

The course format included two pre-trip group meetings, involvement during the service-learning project period in Cambodia, and a follow-up meeting and reflection. The two pre-trip group meetings were for the purposes of allowing group members to get to know one another, answer questions, and clarify every participant's purposes in joining the course. In these two meetings the participants identified and agreed to focus on six main topics during the experience. These six areas were: 1) site entry (purposes and logistics); 2) working with NGOs (especially how to establish a good partnership); 3) how to conduct student reflection and assessment; 4) identifying and limiting risks (especially for international projects); 5) effective site exit (including reflection and wrapping up) and finally, 6) administration and logistics of service-learning projects (including those involving larger groups and travel).

In order to accommodate the participant's other work commitments, two teachers joined on the third day and participated for the remaining eight days of the project and a third teacher (who had previously joined a service-learning project in the same location) joined the group for six days.

For the majority of the course the teacher-participants stayed together to visit the different student projects in each of the discipline areas, meet with non-governmental organization (NGO) partners etc. Teacher-participants typically met in the morning for breakfast with the course coordinator to discuss the day's activities and the areas of focus, then joined student groups to observe their work. The teacher-participants shared meals with the students and would be with students until late in the evening when they could observe the student group reflections. They could converse with the six teachers leading the various student projects. A package of resource materials was created for the course. The resource pack included a small number of relevant conceptual articles on service-learning, templates and proposals for service-learning subjects, and the University's recently published guidelines on assessing service-learning subjects as well as a risk assessment handbook.

The impetus of this paper grew out of the teacher-participant discussions with the course coordinator. The group decided that by participating in a shared reflection exercise, the group could come up with suggestions that would be useful for other teachers who are becoming involved in service-learning. This reflection process could

³ It is likely that limited enrollment was due to a number of factors including the relatively long duration of the commitment, a short time for applications to be accepted, and finally the \$850 US dollar course fee (including Hong Kong to Cambodia round trip air ticket) which was covered for participants internal to the institution by a scholarship fund in support of staff development for service-learning.

also do “double-duty” and provide suggestions to further improve the experiential course for future teacher-participants.

3. TEACHERS’ REFLECTIONS

Reflections were generated to the following questions, and each will be presented in turn:

- Purposes in joining the service-learning staff development experience
- Main gains from participating in the experience
- Main benefits to students
- Advice to teachers starting out in service-learning
- Cautions or warnings for teachers who are setting up service-learning subjects

3.1 Purposes

“During my visit to Cambodia, I have observed different teams serving different communities, participated in reflection sessions, discussed with colleagues, and met with NGOs. Through these activities, I have exchanged thoughts, gained a better idea about overseas service-learning projects, with an eye towards developing my own subject in the future.”

- Teacher Participant A

Every teacher-participant expressed the general purpose of learning more about how to run a service-learning subject and project. However, the particular areas of interest varied with each teacher, and often based on the amount of previous experience. The teacher with the least service-learning experience expressed interest in more of the basic conceptual as well as “how-to” information such as knowing more about the international trends and recent advances in service-learning, and how to facilitate and assess student reflections. The teacher who had just completed his own service-learning subject for the first time confessed to “encounter[ing] some issues in teaching which I [had] never thought of; although I had been teaching [in] universities for over a decade”. He recognized that this subject was substantially different from other subjects he had taught and wanted to learn how to handle service-learning subjects from his peers. The third teacher had previously accompanied the teacher-leaders to Cambodia. She was hoping to soon offer a subject and was very interested in developing a better understanding of the location and culture as she intended her project to also be run in Cambodia. She also wanted to liaise with potential NGO partners for her future subject. In addition, as her own subject would soon become a reality, she was interested in acquiring more detailed practical experience in managing students on service-learning trips.

In summary, although all the teacher-participants shared some common purposes for participating in the experience as advertised, each also brought his or her own individual purposes. The course was better able to meet each teacher’s needs by openly asking them to articulate their purposes at the start in the pre-trip meetings and then using the morning planning sessions and end of day reflection periods to review progress on these individual goals.

3.2 Main Gains

“The nature of service-learning subject is a mixture of learning and serving integrated together. It should achieve the objectives of 1) an awareness of community service with good attitude at learning to serve, and 2) experiencing a more integrated learning outcome while providing services to those needs (Laing, 2013). On one hand, students should be given the professional knowledge as well as some general guidelines for delivering services in a classroom setting. On the other hand, students are provided an environment to practice what they learn and to deliver their professional service.”

- Teacher Participant B

All of the teacher-participants described gains in two key areas – **acquiring a deeper understanding of the critical concepts** or “ethos” of service-learning, and **gaining understanding of many practical issues** related to conducting service-learning projects. The quote above is taken from the reflection of one of the teacher-participants. It incorporates both a recognition of the principle of “balance” between the service and learning components, and elicits the relationship between acquiring professional knowledge and applying it in practice within a service project that echoes the earlier quoted aim of the Hong Kong government’s shift to a four year tertiary curriculum.

Regarding the practical issues, all the teacher-participants described the usefulness of observing *logistics* and the need for *risk management*. This multi-discipline, multi-project internationally-based experience was intentionally chosen for its complexity. The context offered many opportunities to observe logistics such as how to handle travel, meals, accommodation and project supervision and assessment for up to 100 people. In fact, the logistics were so complex that the teacher-participants joked that their own contexts would now seem “very simple” to manage in comparison. Observing the logistics also raised awareness of the range of risks that students could be exposed to and the derivation of a number of practices that would be very useful to limit some of these risks. The importance of requiring students to not only work in groups during the service-projects, but expecting them to travel together and learn to look after each other within their specified groups is an example on one such useful practice for limiting risk.

3.3 Main Benefits to Students

“On the first day of activities, I joined one group of students in the classroom as an observer. It was chaos initially as unforeseeable things happened. Later that evening, I participated in the debriefing process of the groups and heard all kinds of frustration and negative thoughts being raised by students. After the debriefing by two facilitators with the students, the mindset of students was stimulated with respect to their set objectives of learning & attitude. On the last day, the same group of students shared their learning and gains in insight in terms of becoming more flexible, supportive, communicative team members during the service. It is a wonderful experience to see these positive changes in terms of knowledge, skills and attitude gained when dealing with unexpected events, difficulties, language barriers, cultural differences, team dynamics, etc. This is a marvellous experience for students to have

transformed to be more flexible, capable, willing to open up, and giving instead of taking. This kind of experiential learning cannot be easily simulated in classroom or laboratory settings.”

- Teacher Participant A

The intent of this paper is to share the reflections of the teacher-participants. Other research, though now becoming dated, has attempted to compile the benefits to students from participating in service-learning as identified in research studies (Astin *et al*, 2000; and Eyler *et al*, 2001). All three teacher-participants remarked on being able to observe improvements in skills and attitudes of students over the project period. Teacher-participants of more “scientific” disciplines acknowledged that their own students would benefit in their future careers if they also have **more highly developed people related soft skills**, and they could see, as described in the quote above, how the service-learning projects would facilitate development of these skills for all students regardless of discipline.

The teacher-participants also believed that the students will derive **long term benefits from the experience of being taken out of their customary environment**. This was the first international travel experience for many of the students. In addition, the experience involved close contact with people (most often children) from a substantially different living standard practicing customs significantly different from their own. They described students becoming “enlightened” and more open-minded in a way that will require them to rethink what it means to be “rich” or to be “poor”, “lucky” or “unlucky”. The teacher-participants expressed the belief that the students could be learning things from the experience that would influence them in their later life. At a minimum this experience would be an unforgettable part of their University years. One teacher-participant described being “quite sure, that less than two weeks of stay in Cambodia will ever be in their memory; no matter whether they liked or did not like the visit.”

It should be noted that all of the teacher-participant reflections on what students gained were dependent upon being able to observe students across an extended project period. In fact, all of the teacher-participants expressed concerns regarding student ability or what they were learning in the earliest observations when things were more obviously “going wrong”. The student gains described by the teacher-participants, all of which they considered difficult to develop in typical classroom situations, arose over time as part of trying to deal with the challenges the project context presented.

3.4 Advice to Teachers

The advice to other teachers who would teach service-learning is probably most easily shared as a list for consideration as follows:

- **Be clear on the difference between service-learning and volunteer service or work experience.** The model of service-learning used by our University assumes service that draws on skills in a discipline and requires significant student effort not only during the project, but also in preparation and reflection. Other forms of service may not offer the same benefits. Furco (1996) explains the differences.
- **Finding the right match with a community partner is important.** Identify a particular skill or range of skills in your discipline that you can

teach to your students. Your job is also to find a client who values these skills so that they can benefit from the services your students provide. Service-learning projects are found through word-of mouth. If your students do well with one NGO, that NGO will want to work with you again as well as be willing to refer you to other NGOs. If you (and your students) do a good job, over time you will find you have more potential partners than you can serve.

- **You must show care to both your students and the community you are serving.** Teachers are commonly expected to look after their students. However, it is not only possible but even likely that conflicts may arise during the service-project in which student and service recipient needs or wants do not match. Such conflicts must be resolved in a way that demonstrates respect to both parties, and are a source for more learning.
- **Be prepared to draw on a wide range of skills in addition to teaching skills.** In addition to teaching students the discipline specific skills they need to use in the service project, you need to be ready to draw on administrative, logistic and interpersonal skills that are not usually in such high demand in classroom settings. You very probably will have to handle money and have a clear policy and process for handing project-related expenses. You will find that you have to make many decisions “on the spot”, a sense of humor helps, and you should be prepared to be asked all sorts of non-academic questions by both students and clients during the service visits.
- **Be vigilant in identifying and managing risks.** Whether international trips or local projects, service-learning takes students out of the classroom and into the community and interacting with people they do not know. Have policies that minimize the identified risks, such as students always working and travelling in groups. Also have emergency backup and plans ready to put into operation. For example, international service-projects should have a lower teacher to student ratio and always involve more than one staff member so that there is a backup person in cases of emergency. Information on the range of risks and possible ways to address them are available in resources such as the “Risk Management Handbook for Service-Learning at PolyU” at http://sl.polyu.edu.hk/03_3_risk_management.html.
- **Be prepared to learn from negative examples.** Service-learning, because it happens outside of the classroom, involves real people in communities and requires that students actually be doing something – inevitably reveals problems, challenges and mistakes which must be addressed. Adopt the attitude that “mistakes” are opportunities to learn, practice reflection openly with students to come up with solutions to the present challenge and identify what could be done differently next time to prevent it from happening again.

The above list is not intended to be exhaustive. But it does suggest the kinds of understandings teachers can acquire in an immersive experience of a service-learning project.

3.5 Cautions or Warnings to Teachers

And now a list of cautions for consideration:

- **Be prepared for the worst-case scenarios.** At the risk of being repetitive, placing students in real world settings with other people dramatically increases the possibility of unexpected things happening, some of which may be quite serious. It is not possible to predict and prevent everything that may happen. But diligent risk analysis and use of measures to control risk are required. Carry an emergency medical pack and know how to contact a nearby medical facility. Nurturing a positive attitude and calm response to emergent situations is useful. And teaching in teams in which there is more than one recognized leader is crucial to allowing one person to look after an issue while the other continues to supervise the project in context.
- **Assessing students is challenging.** It requires students to demonstrate their professional knowledge as well as how well they provide their service, work as a team, demonstrate the expected attitudes, and so forth. There need to be multiple measures of student performance that assess preparation, the service-project and final reflections and reports. As students usually work in a group, there also need to be adequate measures of individual performance. One teacher is unlikely to be able to observe the services and participate in all student reflection sessions, so it is common to work in teams and/or employ teaching assistants.
- **Service-learning courses require more time and different kinds of effort than “usual” subjects.** The previous comments about all of the logistical and interpersonal skills required also suggest that more hours are likely to be spent by the teacher on a service-learning subject. Subjects may have to run for more than a semester to allow the service projects to be offered evenings, weekends or during term breaks. However, some teachers report that spending time with students on projects allows them to relate to students in a more personal way and that they find they do not mind spending the additional hours.
- **Service-learning requires support from others.** Service-learning is still considered a non-traditional approach to education, and as such has numerous sceptics. As service-learning requires more resources and a lower teacher to student ratio there should be a team with a mixture of academic staff and teaching assistants in monitoring the students' services and handling the assessment. Demb and Wade (2012) describe the importance of many contextual factors, such as departmental and professional community support, as well as institutional policies to motivate teachers to become involved in outreach and engagement in service-learning. In this regard, it is important to have a learning community within a university campus to build up the faculty support for development of service-learning subjects (Furco and Moely, 2012). Hence, special allocation of resources for teaching service-learning subjects should be taken care of at the departmental, faculty, and even at the University level. For example, in recognition of the additional resources required, our University provides additional funding to each accredited

service-learning subject on a per student enrolled basis. Last but not the least, the teachers should be recognized by their department/school for their extra effort in launching and managing the service learning subjects..

4. A FINAL REFLECTION

In closing, what did this experiential course for teachers achieve and was it worth the time and associated costs to run? From a statistical perspective, this short course for three teachers is simply too small a sample to arrive at “significant” outcomes. This running was, at best, a pilot. However, from the perspective of the participants and the course coordinator, the course was definitely worthwhile. Each teacher-participant, though self-selected as being interested in service-learning, has identified a number of outcomes that are personally applicable to their own teaching in service-learning as well as other subjects. And from the perspective of the course coordinator, giving interested teachers the opportunity to observe and experience service-learning was both a very effective way to help teachers learn how to do it themselves, as well as efficient as a course of this nature can be conducted while simultaneously involved in other job responsibilities associated with the service-learning subject. The model of this course suggests teachers who are quite experienced in service-learning should be open to having less experienced teachers come along. When combined with identifying learning targets, observing and reflecting regularly, a lot of valuable insights can be gained from the experience.

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Problem-based Learning: A Teaching Method to Enhance Learning Experience for Students in Service-learning

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ABSTRACT

This paper compares and contrasts lecture-based learning (LBL) and problem-based learning (PBL) as a teaching method for international service-learning projects. We use surveys and interviews in the context of a robotics workshop in Myanmar, organized as an international service project, to uncover uncertainties and limitations associated with LBL. Our results suggest that LBL is not a suitable teaching method for service-learning settings, while PBL is more feasible and effective. We elaborate on the teaching process and implementation, and describe benefits on students' learning outcomes.

Key Words: International service-learning, problem-based learning, robotics.

1. INTRODUCTION

Interest in international service-learning projects is rapidly growing in higher education. Service-learning (SL) provide opportunities for students to obtain a multitude of benefits, including increase in understanding of class topics, gaining hands-on and team-work experience, discovering personal values and beliefs, developing research and problem-solving skills, and growing in interpersonal skills (Furo, 1996a; Astin & Sax, 1998). Kuh (2009) acknowledged that development of these generic skills is crucial for students to facilitate solving complex multidisciplinary problems when entered to working environment after graduation. The projects that take place overseas, namely the international projects, offer unique experience for students to broaden their views in social responsibility, civic engagement, and global citizenship (Hunter and Brisbin, 2000; Hutchinson, 2005). Deeley (2010) stated that such experience provides positive growth to students in their global outlook, racial and cultural sensitivity, and even their languages.

To ensure targeted learning outcomes, complex and carefully designed instructional protocols for international service-learning projects, including well-designed scaffolding at different phases, are required. Over the past 20 years, research has been carried out in preparation phase and reflection phase. Furco (1996b) established types of SL activities that can bring about different civic, social, emotional and skill-acquisition impacts. Florida (2013) presented planning and structures of short-term, large-scale international SL projects. Stacey et al. (1997) prepared an evaluation handbook for instructors to monitor and evaluate student learning progress. Shumer et al. (2000) identified multiple forms of SL

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assessment. Ash and Clayton (2004) investigated the effectiveness of different assessment methods to enhance students' educational and professional outcomes. These frameworks provide concrete fundamentals for instructors to guide students to articulate their responsibilities and service objectives in the preparation phase and facilitate "reflection sessions" for students to delve, think, and analyze their observation obtained during the execution phase to achieve the learning outcomes. However, to the best of the authors' knowledge, guides for students in execution phase, specifically for teaching methods feasible in SL settings, are lacking.

Recent observation discovers that teaching methods used in typical classroom environment, such as lecture-based learning (LBL) teaching method, is not suitable for teaching in SL settings. It was observed that LBL is i) passive as service recipients mainly learn by listening, taking notes, and memorizing, ii) biased to teacher-specified knowledge, and iii) preclusive to interactivities and discussion such that students are unable to obtain feedbacks from service recipients on their learning progress. The authors believe that targeted learning outcomes can be achieved if and only if service objectives are successfully met in preparation, execution, and reflection phase. Sigmon (1994) stated that service is of equal weighted at different phases and highly coupled together.

Indeed, meaningful experience obtained during execution phase is crucial as a key parameter that affects outcomes achieved from reflection sessions. However, the lack of an effective teaching approach appears to be a serious obstacle for students to reach expected objectives and consequently leads to failure in achieving the potential learning outcomes. Utilizing observation obtained from an international SL project (a robotics workshop), this paper seeks to 1) identify uncertainties and limitations associated with the LBL teaching method, 2) present an alternative pedagogy, problem-based learning, that is suitable for students to use for teaching in SL settings and its implementation, and 3) analyze its benefits on students' learning experience and outcomes.

2. CASE STUDY

2.1 Background

The background of our paper is a service-learning project that took place in Yangon, Myanmar. Twenty undergraduate students were enrolled and divided into two teams of ten to provide an introduction to robotics workshop to two groups of 45 Computer Science students (service recipients) in two universities: University of Computer Science, Yangon and Dagon University. The workshop lasted for 5 days and was designed to cover knowledge related to design and operation of robotics systems such as computer programming, hardware/computer interfacing, sensors and signal conditioning, feedback control, and actuators and power electronics.

Table 1 shows the outline of the robotics workshop prepared by the students and the daily arrangement for morning and afternoon sessions in detail. The first 3 days of the workshop focused on delivery of materials including programming in Arduino environment, basic concepts of electric circuits, functions of electronic components, and soldering techniques, with the main mode of delivery being lectures, supplemented with powerpoints. Students believed that a lecture-based teaching environment was a straightforward way in which to impart knowledge to the recipients efficiently and allow them to have a greater control on recipients' learning progress. Some labs were included as means for the service recipients to explore and get hands-on experience with the robots. On the 4th and 5th day of the workshop, they would need to build mini-car robots (Figure 1) to solve a maze problem

	Day 1	Day 2	Day 3	Day 4	Day 5
Morning Session	Welcoming Notes	Concepts of Movement	Expansion on Mini Car Robot Testing and Calibration	Preparation for Competition 1	Preparation for Competition 2
	Introduction to Robotics	Interaction with surroundings		Competition 1	
	Expectation and Challenges	Line following exercise 1 (Hard-coding)			
	Introduction to Arduino C	Improvement on robot performance			
Afternoon Session	Basic concepts in electronic components	Basic concepts in soldering	Demonstration for Competition 1	Competition 1 (continued) Discussion/reflection Demonstration on Competition 2	Competition 2 Discussion/reflection Closing notes
	Training exercises	Line following exercise 2 (Using feedbacks)			

Table 1: Original outline for the 5-days robotics workshop.

	Day 2	Day 3	Day 4	Day 5
Morning Session	Recap of Basic Electronics	Working Principle of Photoresistors	Working Principle in BJT	Solving the Maze
	Basic Arduino Programming	Programming on Photoresistors	Programming in BJT	
	LED Labs/Discussion	Photoresistors Lab/Discussion	BJT Controlled Sensors Lab/Discussion	
Afternoon Session	Working Principle with LEDS and Piezo Plate	Working Principle with Ultrasonic Sensors	Working Principle of Motors	Solving the Maze (continued)
	Programming structure with PWM	Program Control with Ultrasonic Sensors	Program Control with Motors	
	Piezo Plate Lab/Discussion	Ultrasonic Sensors Lab/Discussion	Motor Labs/Discussion	
	Integration Lab: Traffic Lights	Integration Lab: Invisible Weight Scale	Integration Lab: Line Detection	

Table 2: Workshop outline with PBL teaching process.

(Figure 2). The recipients were given different sensors (i.e. light and ultrasonic) and were expected to apply programming skills that they have learned to solve the problem. Different levels of difficulties were built into the problem. The ultimate goals for these activities were 1) to facilitate problem-solving with robotics, 2) to elaborate two problem-solving techniques: divide and conquer and trial-and-error, and 3) to emphasize the idea of “things that work in theory, but not in practice”.

2.2 Assessment of LBL Teaching Method

Evaluation forms were distributed at the end of the first day of the workshop. The forms were composed of 2 parts: a questionnaire of 3 questions and a 10-question problem set. The purpose of the questionnaire is to allow the students to collect feedback on their teaching performance. The questions are: “What do you think of our teaching method?”, “How well do you feel you learned the workshop materials?”, and “How would you describe your overall learning experience?” 80% of the recipients completed the questionnaire. However, the feedback on the first-day workshop experience is relatively discouraging.

Critics were that the teaching environment is passive:

“Teachers speak well ..., power-point slides are good and organized ..., but learning should not be only listening, copying texts ... and memorizing them.”

Another complaint was that the lectures on electronic components are deductive:

“[He] introduced ... BJTs, [its] theory, characteristics, functions, models, and equations like voltage and current ... these fundamentals can be helpful, but they are not for building the robots.”

Many recipients also reported that lecture materials are abstract and difficult to understand:

“Even I’ve learnt Java in the previous semester, I don’t know the “priority” criteria when using the “if” statement ..., without practice, logic flow is hard to understand.”

“The programming part of the lecture is difficult to follow... quite a lot of time we don’t know what to do and how to start writing the program... it is quite discouraging.”

The last common feedback from the recipients was that they only study alone and they are fear to interrupt the workshop and raise questions:

“I wish that the teachers standing aside could help us in the middle of the lecture ... a lot of us have questions ..., but we don’t know how to ask questions.”

In addition to the questionnaire, a problem set was distributed to the service recipients. The problem set is consisted of 10 multiple-choice questions related to what they have learned in the first day. 33 recipients completed the 10-question problem set. The purpose of this problem set is to allow the students to have a quantitative understanding on recipients’ learning process on the first-day workshop. Figure 3 shows the overall result of the problem set with an average score of 4.48 or 44.8 %. Figure 4 shows the results for the programming part and the electronic component part of the problems and the average score are 2.67 or 53.3% and 1.82 or 36.4%, respectively. These results indicate that the learning process is on the lean side. In particular, they seem to have difficulty with the materials associated with the electronic components.

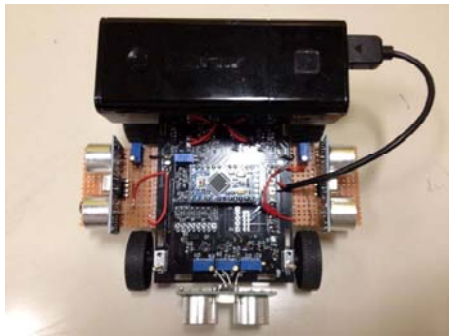


Figure 1: Mini-car robot.

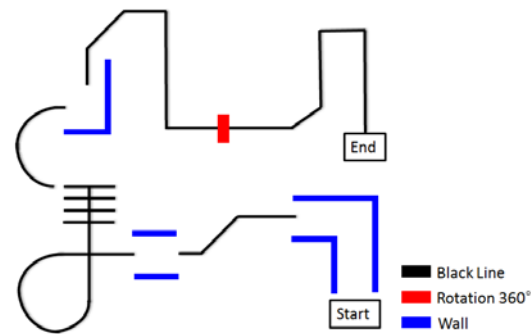


Figure 2: Schematic of maze.

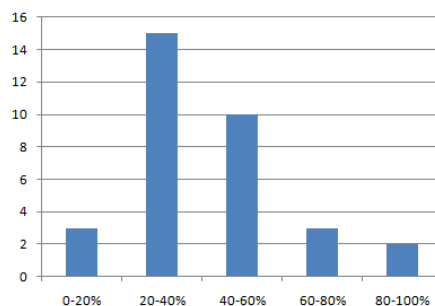


Figure 3: Results for full problem set. Number of service recipients vs score in percentage.

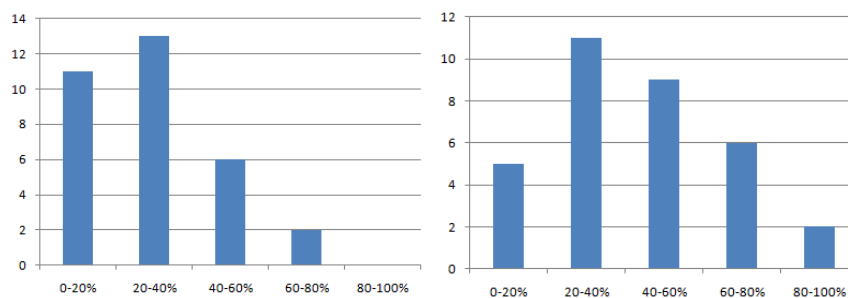


Figure 4: Results for partial problem set. Number of service recipients vs score in percentage. (Electronic components part [left] and Programming part [right])

Together with the feedback from the questionnaire and the results from the problem set, we can summarize the issues as follows: 1) there is no mechanism for students to ensure that recipients are intellectually engaged with the materials, 2) it emphasizes learning by listening in which neglects higher orders of thinking, 3) it is not well suited for teaching complex and abstract materials, 4) it fails to provide students with in-time feedback about the level of service recipient learning, 5) it presumes that all service recipients learn at same pace and are at same level of understanding, and more importantly 6) it precludes discussion and interactions.

The unfortunate experience obtained from the execution phase led to relatively poor outcomes from the first reflection session. Students were worried, disappointed, and discouraged. Discussions were merely concentrated on teaching matters. Little attention was paid to understanding the recipients in terms of the way they learn, the way they think, and the driving mechanisms. The uncertainties and limitations inherent with the LBL

teaching method appeared to be a serious obstacle to achieving the targeted objectives and the potential learning outcomes.

3. PROBLEM-BASED LEARNING AND ITS IMPLEMENTATION

Problem-based learning (PBL) is an active learner-centered teaching approach. PBL has been considered in different professional areas, such as engineering, science, and medical, as a method of delivery (Cline & Powers, 1997; Laplaca et al., 2001; Kampen et al. 2004; Awang & Ramly, 2008). It is an effective pedagogical approach that fosters active learning, intrinsic motivation, open inquiry, problem solving, critical thinking, and interpersonal and collaborative skill.

Through PBL, a real-life problem, selected to meet educational objectives, is the starting point of the learning process. Given a conditioned scenario and with the guidance from students, service recipients first define the problem, understand what to be solved, and use brainstorming to make hypotheses and identify necessary knowledge to be acquired. Then, service recipients establish keywords and explore and understand relevant materials. Finally, recipients experiment their learning through mini laboratories and specific the additional information required to solve the problems. In PBL environment, it is not purely about solving a problem, but it uses the problem as a vehicle to increase knowledge and understanding (Brodeur et al., 2002).

PBL promotes discussion and group learning. In our context, recipients work in groups of three to six with a student. Students play a role as instructors providing contents to recipients and simulating meaningful group discussion. In this environment, recipients absorb lessons in a more intrinsic way and allow them to have a more engaged and comfortable atmosphere to raise questions. For students, this provides an effective platform for them to seek for what the recipients need help with and recognize precisely what they have to prepare for next lecture. Discussion also facilitates group learning. It combines acquisition of knowledge with development of generic skills and attitudes, such as communication skills, teamwork, independent responsibility of learning, sharing information and respect for others.

Table 2 shows the modified outline of the robotics workshop and the implementation of PBL. The PBL teaching process consists of 3 stages to promote understanding, thinking, application, and discussion.

3.1 Stage 1. Overview and Review

This is a 10 to 15-minutes opening section of the workshop. The overview section can present an overall picture to service recipients to realize what to be learned. It can also provide an objective summary to emphasize what the take-away messages and materials will be at the end of the workshop. The review section can allow students to reiterate important materials learned from previous workshops and provide justification on how they are important to meet future objectives.

3.2 Stage 2. Learning, Application, and Discussion

There are 3 levels in this stage: 1) lectures, 2) mini labs, and 3) discussion sections.

Level 1. Lectures

The lectures, approximately 30 to 45 minutes, are to provide basic understanding of a subject matter to service recipients. In contrast to LBL teaching environment, fundamental concepts are introduced with real-life related analogies and service recipients learn the materials through step-by-step worked-out examples with hand-in-hand fashion.

Level 2. Mini Labs

These are short lab sessions in a structured environment, for example, measuring and observing certain electronics phenomena. Problems are designed to be completed in approximately 15 to 20 minutes and can be “mass-produced”, as in each recipient team solves the same problem as other teams at the same time. Examples in the robotics workshop include LED and piezo-plate labs in Introduction to Basic Electronics, color recognition and length detection in Sensor Labs, and voltage/current control and motor rotation in Dynamics Labs. These exercises simulate not only learning and application, but also lead to group and class discussion.

Level 3. Discussion Sections

These sections facilitate group and/or class level discussion. Students can discuss, explore, and investigate interesting observation/phenomena with recipients to engage learning, add interest on specific matters, provide and obtain feedback, promote lecture preparation, encourage dialogue among and between students, develop important communication skills, and have opportunity to practice using the language of the discipline.

3.3 Stage 3. Integration with Macro Labs

Problems at this stage are longer in duration than previous stages, ranging from 45 minutes to an hour. Problems are more complex, entailing more planning and combination for different knowledge. Examples at this workshop include *Traffic Lights* with the use of LEDs and piezo-plate, *Invisible Weight Scale* with light and ultrasonic sensors, and *Line Detection* with light sensors and motors.

Stage 3 presents a close-guided, complex, multi-faceted, unconstrained, and highly motivating environment for recipients to full apply the knowledge learned and develop problem-solving and critical thinking skills. Stage 1 and 2 provide a constructed, interactive, and comfortable environment for recipients to learn, practice, and discuss.

Our hope was that the PBL teaching method can overcome the uncertainties and constraints encountered with LBL teaching method and provide encouraging and meaningful experience to students, thus enhancing the overall learning experience in service-learning.

4. DISCUSSION OF PBL TEACHING METHOD

Feedback regarding the learning experience in the PBL environment was obtained at the end of the 5-day workshop. Service recipients were interviewed and students were asked to turn in a reflective report. In the feedback collected from the recipients, the remarks on the method were:

“Wonderful, it drives me to participate actively.”

Many recipients reported that the teaching environment is more pleasant and it motivates one to delve deeper into the subject:

“I like the lectures, the examples, the mini-labs, and the integration labs. I feel I really learn something ... and this is the first time I can make something happen from what I learn ... the piezo-plate actually made sound.”

PBL encourages teamwork and discussion furthers learning:

“The labs are hard ... but we work together ... we discuss ... we fail ... but we try again and we solve the problem.”

“Teachers are nice ... they answer my questions patiently ... I like to have discussion with them because I can learn more.”

Feedback collected from students was also positive. Students had better understanding and motivation on the service objectives:

“They can’t learn everything in 5 days ... it is about a lesson to explore matters and skills that they have never had before.”

Some students reported that they were allowed to spend time, have more interaction, and even establish friendship with the service recipients:

“Solving complicated problems is difficult for them ... so I show them how I will break down the problems ... I guide them through one by one and step by step ... and they like it.”

“Most of us are sick on the third day of the workshop ... I really did not expect something like this would happen ... my student actually gave me a bag of cough drops ... and she said we are friends. “

Many students expressed that the friendship relationship allow them to know more about the recipients on their culture and beliefs. Students reported that what they learned from the recipients help them to widen their civic engagement and social responsibility:

“To keep peace when facing cultural differences ... the ideas is about respect.”

“Myanmar people are kind and they care about each other and even strangers like me... when I was in Hong Kong, I usually only think about me.”

“Using robotics is their dream ... even though I can only sleep for only 30 minutes, I still need to provide the best lectures for them.”

Some students even mentioned that the problem solving skills, critical thinking, and teamwork would be helpful for them to tackle challenges in the future:

“As a health-care professional in the future, I clearly understand that I have to work with colleagues effectively to identify what patient needs, organize and analyze information in order to make a clear decision and take action ... and communication is essential to achieve this goal.”

According to above positive impacts on service recipients and our students, PBL offered interactive communication opportunities for both parties. In addition to providing effective learning environment to recipients, the interaction also allowed students to acquire better understanding and actual needs of the recipients. Under this circumstance, students could make significant changes and positive impacts in the execution phrase. Students’ flexibility and adaptability, hence, could be enhanced. As a consequence, students gained rewarding service experience, leading to thoughtful sharing in reflection. Thus, impactful learning gains could be harvested in different dimensions of service-learning.

5. CONCLUSION

This paper presents the use of problem-based learning pedagogy for international service-learning projects. PBL is shown to be an effective pedagogical approach for students to use during service delivery. With the concept of PBL, an active and more learner-centered teaching method is developed and implemented to service-learning settings. Using observation from a robotics workshop as an illustration, the benefits of PBL on enhancement of the overall learning experience for students are analyzed.

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Qualitative Assessment of Students' Learning Outcomes in Credit-Bearing Service-Learning

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ABSTRACT

Service-Learning is an advanced pedagogy that combines academic study and community service. Despite its rapid development in Hong Kong, there is a serious lack of qualitative impact study about this pedagogy. Thus, the office of Service-Learning, Lingnan University has been conducting focus group studies from the academic year of 2011/12 to 2013/14, investigating students' Learning outcomes in credit-bearing Service-Learning programme at Lingnan University. 36 focus groups were conducted from 2011 to 2014 with 131 students. The results suggested that participating in Service-Learning can facilitate students' development in various areas, especially in communication skills, organization skills, social competence, problem-solving skills, civic orientation and subject-related knowledge. Also, students tend to enhance their learning and skills from different platforms specifically provided by Service-Learning.

Key Words: Qualitative Assessment, Learning Outcomes, Focus Group

1. INTRODUCTION

Service-Learning is a developing pedagogy that combines academic study and community service, generating much room for innovation and creativity. It is becoming more and more important under the new 3-3-4 educational model in Hong Kong, as it provides a platform for the whole-person development, which is one of the focuses of new educational model. Moreover, Service-Learning provides a platform for knowledge exchange between university and community and creates a win-win situation among all the stakeholders, including instructors, students, community agencies and service targets.

The Office of Service-Learning (OSL), Lingnan University, has conducted various quantitative studies to assess students' learning outcomes in Service-Learning since 2006. However, there is a lack of qualitative research about this topic both in Lingnan and Hong Kong. Thus, OSL started this focus group study since the academic year of 2011/12 to gain a comprehensive understanding of Service-Learning's impacts on students' learning and development. This paper will report and compare the research results of three academic years, from 2011/12 to 2013/14. The results can not only help improve the existing Service-Learning programmes, but also provide guidance for other institutions who intend to incorporate Service-Learning into their courses.

2. OBJECTIVES AND RESEARCH QUESTIONS

The main objectives of this study are to explore:

1. What have students learned through their Service-Learning programmes?
2. How did students learn through Service-Learning programmes?

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3. LITERATURE REVIEW

Service-Learning is the combination of “rigorous academic study and voluntary community service” (Chan et al, 2006, p.8). Its feature of linking academic theories with service makes Service-Learning distinct from conventional volunteer activities. Service-Learning is grounded from experiential learning (Kendall et al, 1986) and addresses the three main goals of experiential learning, namely “allowing students to become more effective change agents, developing students’ sense of belonging in the communities of which they are members, and developing students competence”(Carver, 1997, p.143). Learning outcome is the main focus of many studies about Service-Learning. Empirical evidence suggested that participating in Service-learning has a positive impact on students’ academic achievement, writing skills, ability of critical thinking, grades, leadership, self-confidence, personal development and social engagement (Astin et al, 2000; Markus, Howard, & King, 1993; Rhoads, 1998; Gray et al, 1996).

Service-Learning is a relatively new pedagogy in Hong Kong so only few studies about its impact have been conducted. Despite an increasing number of qualitative research about Service-Learning’s impact in recent years (e.g, Chan et al, 2006 & 2009; Ngai, 2006 & 2009; Power, 2010), there is an obvious lack of qualitative research in Lingnan University and Hong Kong. Thus, starting from 2011/12 OSL, lingnan University decided to use qualitative method to investigate Service-Learning’s effect on students’ learning outcomes.

In the Lingnan Service-Learning model, seven learning outcome domains were developed based on the ABC model of Lingnan Liberal Arts education, namely Adaptability, Brainpower, and Creativity. Initially, six learning outcome domains were developed into six learning outcome indicators (Chan et al, 2006), namely, subject-related knowledge, communication skills, organization skills, social competence, problem-solving skills and research skills. After reviewing the first six existing domains, civic orientation was added as the 7th learning outcome indicator. The seven domains of learning outcome indicators are listed as in Table 1 below:

Table 1: Seven domains of learning outcome indicators

Domains	Meaning
Subject-related knowledge	An understanding of the concepts and knowledge taught on the course
Communication skills	The ability to express ideas clearly and to understand the ideas of others
Organization skills	The ability to put something into working order and arrange parts and people into an efficient system
Social Competence	The skills necessary to be accepted and fulfilled socially, including interpersonal relations, self-confidence and social skills
Problem-solving skills	The ability to recognize the core of the problem and to solve it effectively
Research skills	The ability to search relevant literature, to understand types of research methods and to collect and analyse data
*Civic orientation	An understanding of one’s social responsibility

Sources: Chan et al, 2006, p.20, *OSL, 2011, p.11

4. METHODS

4.1. RESEARCH DESIGN

A qualitative research method, focus group, was used in this study. Participants were all students from Lingnan University who studied credit-bearing courses with Service-Learning elements. Purposive sampling was used because we intended to select focus groups from each department with Service-Learning courses, in order to gain a

comprehensive understanding of Service-Learning's impacts on students from different courses. It is important to notice that some planned focus groups cannot be conducted because of schedule problems of students. Three OSL staff acted as the facilitators, normally one facilitator for one focus group. Neither of them was involved in the coordination of any of the courses with Service-Learning elements.

4.2. PROCEDURES

The procedures of the focus group discussion included three steps: (1) the facilitator explained the purposes of the study; (2) students signed a consent form and completed a one-page 'Focus Group Opening Questionnaire' (Appendix 1), designed by OSL researchers to motivate students to think about discussion questions; and (3) the facilitator managed the discussion according to a semi-structured focus group guideline (Appendix 2).

Each focus group was recorded using a digital recorder and transcribed verbatim. The data were managed using NVivo and analysed with the method of content analysis.

5. RESULTS

5.1. RESPONDENTS PROFILE

36 focus groups were conducted from 2011/12 to 2013/14 with 131 students. Specifically, 8 focus groups and 34 students in 2011/12, 11 focus groups and 41 students in 2012/13 and 17 focus groups and 56 students in 2013/14 (See Table 2).

Table 2: Numbers of focus group and participating students by academic year

Academic Year	2011/12	2012/13	2013/14	Total
No. of focus group	8	11	17	36
No. of participating students	34	41	56	131

The majority of the respondents were Year 2(48.1%) and Year 3(39.7%) students. More female (77.1%) participated in Service-Learning than male (22.9%). Similar numbers of respondents were studying the degree of Bachelor of Arts (30.5%), Bachelor of Business and Administration (27.5%), Bachelor of Social Sciences (37.4%) (See Table 3).

Table 3: Demographic data of Respondents

		No. of participants				Valid Per cent
Academic Year		2011/12	2012/13	2013/14	Total	
Gender	Female	22	33	46	101	77.1%
	Male	12	8	10	30	22.9%
Year of Study	1	2	5	4	11	8.4%
	2	18	22	23	63	48.1%
	3	13	14	25	52	39.7%
	4	1	0	4	5	3.8%
Degree	BA	14	14	12	40	30.5%
	BBA	5	15	16	36	27.5%
	BSS	15	12	22	49	37.4%
	exchange	0	0	6	6	4.6%

5.2. LEARNING OUTCOMES OF SERVICE-LEARNING

According to students' responses for the three years (2011-2014), most skills in the seven domains were reported to be greatly enhanced through Service-Learning, except

Research Skill (TU=15¹). Most students rated their greatest improvement in Civic Orientation (TU=137), Communication Skills (TU=98), Problem-solving Skills (TU=71), Social Competence (TU=69), Subject-Related Knowledge (TU=60) and Organization Skills (TU=48).

Most students reported that the least improvement through Service-Learning was in Subject-related Knowledge (TU=81) and Research Skills (TU=62), which are the only two skills (of the seven domains) more students reported little improvement than those reported great improvement. Only a few students believed that they only learned little in other five skill domains (see Table 4 & Figure 1). The trends of each year's results are consistent with the overall results (see Figure 2).

Table 4: Students' self-reported learning outcome in seven skill domains by academic year

Great Improvement	Text Units (TU)				Little Improvement	Text Units (TU)			
	2011 /12	2012 /13	2013 /14	total		2011 /12	2012 /13	2013 /14	total
Civic Orientation	28	64	45	137	Subject-related Knowledge	28	8	45	81
Communication Skills	32	19	47	98	Research Skills	23	16	23	62
Problem-solving skills	22	22	27	71	Civic Orientation	7	6	11	24
Social Competence	30	14	25	69	Social Competence	2	1	5	8
Subject-related Knowledge	22	10	28	60	Problem-solving skills	0	5	3	8
Organization Skills	8	16	24	48	Communication Skills	3	2	3	8
Research Skills	3	1	11	15	Organization Skills	3	0	3	6

Figure 1: Students' self-reported learning outcome in the seven domains of skills from 2011/12-2013/14

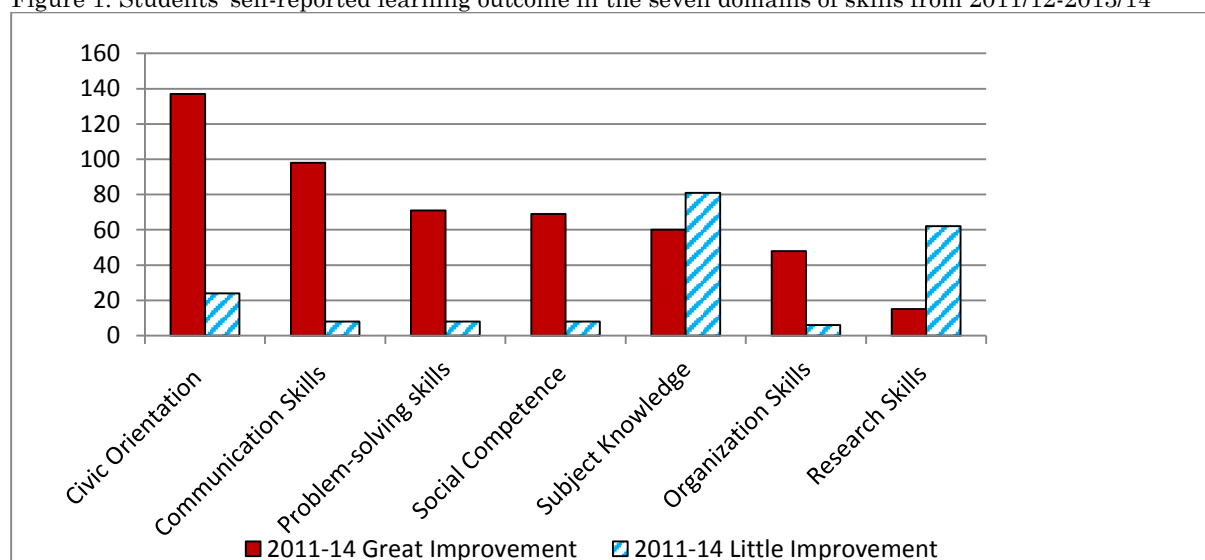
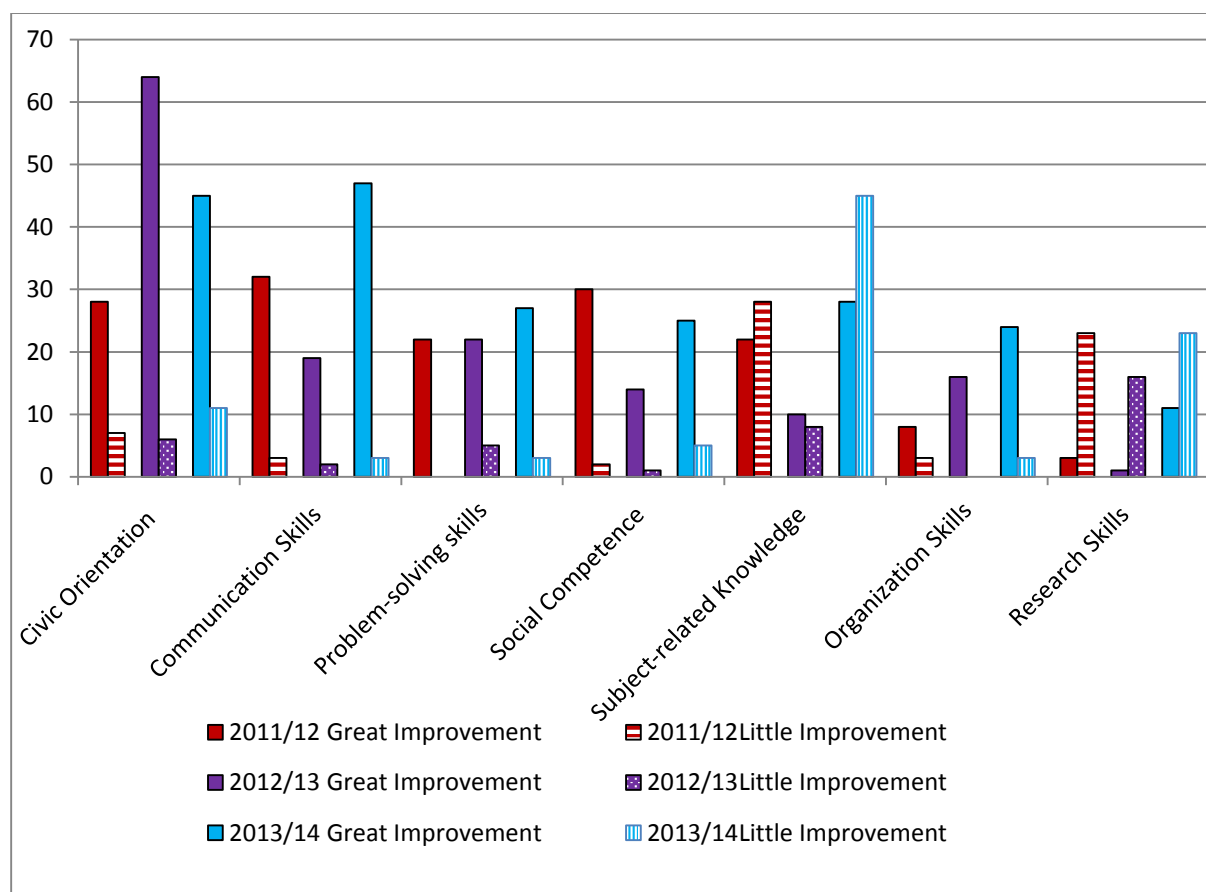


Figure 2: Students' self-reported learning outcome in the seven domains of skills

¹ Text Unit (TU) means the "word(s)", "phrase(s)", or "sentence(s)" extracted from views collected from respondents.



5.2.1. CIVIC ORIENTATION (GREAT IMPROVEMENT)

Many students reported a great improvement in their civic orientation through Service-learning (TU=137). They believed that they have gained a stronger sense of social responsibility (TU=36), more comprehensive understanding of social issues (TU=26), higher level of passion for taking future civic actions (TU=25) and greater sense of empathy with underprivileged people in the community (TU=21). Much less students (TU=24) mentioned that they learned little in this domain because they were unsure about the meaning of civic orientation or method to link their project/courses with civic orientation; or their project only provided indirect services to the target groups (for example, facilitating social enterprises' development), or their target groups expressed different civic attitudes opposite to theirs.

5.2.2. COMMUNICATION SKILLS (GREAT IMPROVEMENT)

Many students agreed that Service-Learning strengthened their communication skills (TU=98), by increasing their abilities to discuss in groups (TU=31) and express own ideas clearly (TU=16), and use different communicational strategies to interact with different people (TU=34). Only a few students (TU=8) pointed out that small group size, the nature of certain service activity (for example, farming), or languages barriers with their teammates or service targets resulted in inadequate communication opportunities, in turn, hindered their development in this domain. Interestingly, some other students found that working with non-local teammates improved their presentation and language skills.

5.2.3. PROBLEM-SOLVING SKILLS (GREAT IMPROVEMENT)

Service-Learning raised students' problem-solving skills (TU=71), mainly through cultivating their ability to confront and actively resolving problems occurred during the whole process of the project, from preparation to implementation (TU=57). Some students also learned to observe and analyze a problem from different stakeholders'

perspectives; and reflect on their failures and search for multiple solutions. Only eight students (TU=8) felt little enhancement in this domain because their projects were very easy or their course instructors helped them solve all the problems.

5.2.4. SOCIAL COMPETENCE (GREAT IMPROVEMENT)

Students significantly improved their social competence (TU=69), because Service-Learning not only allows students to cooperate with other students in a team but also provides them opportunities to interact with people different from the normal campus population, such as agency staff and underprivileged populations. Specifically, students reported that they increased their tolerance to diverse populations and opinions (TU=18), broadened their social networks (TU=21) and understood themselves better (TU=10) through Service-learning.

Only eight students (TU=8) reported little improvement in this domain because they thought this skill was not designed to be the focus of their projects; or they focused on the completion of the projects rather than building the relationship. Some students pointed out although Service-Learning can provide a communicational platform for different people, if the students do not actively interact with others their social competence would not improve.

5.2.5. ORGANIZATION SKILLS (GREAT IMPROVEMENT)

Service-learning effectively strengthened students' organization skills (TU=48), through providing platforms and opportunities for them to manage practical projects (TU=29) and discover their potential of organizing events and leadership (TU=8). A few students (TU=6) reported less improvement in this domain because they were involved in a small-scale service project so there was not much to organize; or had limited autonomy to plan activities when working with big organizations (for example, government).

5.2.6. SUBJECT-RELATED KNOWLEDGE (CONTROVERSIAL IMPROVEMENT)

Students' responses regarding subject-related knowledge were very interesting. Many students gave positive feedback in this domain (TU=60). They believed that Service-learning has helped them identify their subject-related theories in real life and enhanced their understanding of academic knowledge (TU=19). Some students also learned to apply their knowledge in their practical projects (TU=30), and even developed a mentality of actively linking academic theories with real life experiences.

However, more students reported that they experienced less improvement in this domain comparing to the other domains (TU=81), because they felt a lack of connection between their academic courses and service projects. They explained that some theories taught in class were too abstract to be applied in their specific project; and some course instructors focused on teaching how to conduct Service-Learning but neglected theoretical knowledge. This suggests that students' learning outcome in subject-related knowledge more depends on the design of service projects and course instructors' way of teaching.

5.2.7. RESEARCH SKILLS (LITTLE IMPROVEMENT)

Most students who mentioned Research Skills reported little improvement in this domain (TU=62), because they were not sure about the definition of research skills; or did not study theoretical knowledge of research (for example, key concepts of research such as methodology and statistical analysis) in their academic courses; or thought research skill was not the focus of their Service-learning projects. Some students believed, for example, that they must conduct questionnaire investigation to practice research skills.

There are still some students who learned how to gather useful information (TU=10) and generate research questions (TU=2).

5.2.8. IMPROVEMENT IN OTHER SKILLS

Apart from the above seven domains of skills, students also reported enhancement in confidence, work efficiency, time management, teamwork skills, critical thinking,

creativity and some specific knowledge related to certain projects, such as video making, farming and handicraft. Some of them gained a clearer mind about their future career path through close interaction with community agents. A special bonus for non-local student participants is gaining a better understanding of the society and culture of Hong Kong.

5.3. METHOD OF LEARNING IN SERVICE-LEARNING

Service-Learning aims to cultivate all-round talents so provides diverse learning platforms. Students reported that Service-Learning facilitated their learning, mainly through five methods:

(1) Working with teammates, agencies and targets (for example, learning to listen to and deal with diverse opinions, and then reach an agreement among different parties.)

(2) Practically managing and implementing projects and services (for example, learning to manage their service projects from preparation to implementation, including overall planning, detailed administrative work, interaction with partners and application of academic knowledge in services.)

(3) Self-reflection (for example, learning to reflect on how to ameliorate social problems in their daily lives, how to link their academic knowledge with service, how to form own opinions after group discussion and etc.)

(4) Completing Service-Learning related assignments (for example, learning to actively search for information and knowledge about their courses and related social issues for reflective essays and presentations.)

(5) Consultation (for example, learning to understand community's real needs and the link between theories and service through getting feedback and advice from community partners and course instructors.)

6. CONCLUSION

The results of the three-year focus group studies suggest that participating in Service-Learning can facilitate students' development in various areas, especially in communication skills, organization skills, social competence, problem-solving skills, civic orientation and subject-related knowledge. This is consistent with the objectives of the new 3-3-4 educational model in Hong Kong: facilitating students' abilities to think independently, identify and resolve problems; and develop their skills for employment, sense of social responsibility and global citizenship (UGC, 2010).

Furthermore, students' reported methods of learning in Service-learning are special features of this advanced pedagogy. Specifically, Service-learning advocates reciprocal cooperation among students, course instructors and community partners. This can provide students opportunities to work with and learn from different parties, such as their own teammates, instructors, agency staff and service targets. Also, allowing students to manage and implement their own Service-Learning projects can help students improve their social and practical skills, which cannot be trained in the classroom. Additionally, reflection and consultation are also the key elements of Service-Learning, to ensure students' learning process is systematic with positive guidance and supervision and help them connect service and theories. Service-Learning related assignments, such as reflective essay and presentations, can effectively motivate students to study and help instructors evaluate their learning outcome. Since students can develop a lot through those learning platforms specifically provided by Service-Learning, it indicates that Service-Learning could be an effective pedagogy.

Regarding the findings that many students reported less improvement in subject-related knowledge and research skills, it is possible that the extent of enhancement in these two areas depends on the nature of the service tasks. For example, those students

whose service project was to prepare strategic plans for a social enterprise tended to reported greater improvement in knowledge application and research conduction, than their counterparts whose service was to provide direct caring services to the elderly. Thus, further studies can investigate the effect of nature of the service/project on students' learning. The results can help educators use the method of Service-Learning to achieve their teaching objectives more effectively. For instance, if the main goal of a course/programme is to enhance students' subject-related knowledge and research skills, the instructor/organizer can choose specific types of Service-Learning projects which tend to bring great improvement in the two skill domains.

Also, the participants in current studies were different for each year, so we could not examine the long-term impacts of Service-learning on students' development. Since Service-learning is supposed to gradually and continually improve students' whole-person development, longitudinal impact studies with appropriate control groups (for example, students who do not participated in Service-Learning) would be very valuable to be conducted. Furthermore, Service-Learning is supposed to benefit students not only during their university life, but also for the later stage of their lives. Thus, it is worth investigating the effect of Service-Learning on student participants (e.g. alumni) even in their career and social lives outside campus.

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To Serve and To Learn – Students’ Reflections of the Service Learning Experience in Serving the Migrant Children in Shanghai

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ABSTRACT

This paper examines the learning experiences of a service-learning subject entitled “Promotion of Children and Adolescent Development” from the perspective of the students. Based on the reflective journals of 20 students, several perceived benefits of the subject were identified, including enhancement of intrapersonal and interpersonal competence, reflections on attitudes towards life and learning, application of learned knowledge into practice, facilitation of team work, development of passion to help the underprivileged children and adolescents, cultivation of civic responsibility, nurturing of awareness to social problems and issues, and reflections on the roles, responsibilities and contributions as professionals in future. These findings illustrate the importance of an effective university service-learning subject that attempts to promote the self-development of the students as well as cultivate their citizenship.

KEYWORDS

Service learning, civic responsibility, university students, self-development

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INTRODUCTION

Learning nowadays is not restricted to the traditional methods of instructional based lectures and tutorials. Active learning strategies such as collaborative learning, use of electronic and interactive media, problem-based learning, experiential learning were used to expand students’ horizon and enhance students’ competence (Bringle & Hatcher, 1999). Among different learning approaches, service learning has become an effective experiential learning approach that develops the students’ interpersonal competence, problem-solving ability and sense of civic responsibility.

Service learning is defined as a “course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such as a way to gain further understanding of course content, a boarder appreciation of the discipline, and an enhanced sense of civic responsibility” (Bringle & Hatcher, 1995, p. 112). Under the definition, service learning integrates community service with educational objectives (Bringle & Hatcher, 1999). At one side, the students serve the deprived community by sharing their resources, talents and experiences. At the other side, the students gain the knowledge and experience in providing the service, and build up the intrapersonal and interpersonal competence through the planning, implementation and evaluation processes. The essence of service learning is to integrate “service” and “learning” together so that both the service providers (students) and service recipients (community) are benefited. As suggested by Honnet and Poulsen (1989), “service, combined with learning, adds value to each and transforms both” (p.1).

In theorizing service learning, Giles and Eyler (1994) applied Dewey’s theories of education and citizenship in understanding the missions and components of service learning. Regarding education, Dewey highlighted the importance of experience that constituted to learning by inducing interest in knowledge and effects to later experience (1938). According to his view, experience becomes educative based on two guiding principles: principle of continuity (the previous experience to be directed to growth and development) and principle of interaction (learning results from transaction between the learner and his/her environment) (Dewey, 1938; Giles & Eyler, 1994). Another aspect that constitutes to service learning is based on Dewey’s social and political philosophy. As suggested by Dewey (1897), education is “a regulation of the process of coming to share in the social consciousness; and that the adjustment of individual activity on the basis of this social consciousness is the only sure method of social reconstruction” (p. 295). He

argued that education should not be separated from the ideas of citizenship, democracy and social reform (Dewey, 1900). In summary, service learning has dual roles in nurturing the development of the students: (1) to induce interest in knowledge and effects that are directed to growth and development; and (2) to cultivate civic responsibility that may lead to democracy and social reform.

To provide an opportunity for the university students to serve and to learn, a service learning subject named “Promotion of Children and Adolescent Development” was launched at The Hong Kong Polytechnic University during Semester 2 and 3 in 2012-2013. The subject aimed at (1) introducing different perspectives on child and adolescent development, needs and challenges of children and adolescents living in disadvantaged circumstances to students through design and implementation of service project; (2) enhancing students’ competencies of problem-solving, decision making, communication and team work; (3) cultivating the positive values and strengths orientation among students; (4) nurturing students’ sense of social responsibility, social awareness and promote prosocial behaviors; and (5) nurturing students’ sense of care and compassion towards other people in the community, especially towards underprivileged children and adolescents. During the summer of 2012, a total of 40 students enrolled in this subject. The content and arrangement of the subject is listed in Table 1. The students were requested to plan and deliver a summer camp for the migrant children in Shanghai. The summer camp lasted for five days, with a total of forty hours. They worked in small groups to deliver different lessons to the migrant children out of four major areas: living English, interesting science, health education, and intrapersonal and interpersonal competence. A finale was held to recognize the children’s effort and achievement, to build up team spirit of the children, and to create hope and aspirations to migrant children. There were totally 120 migrant children participated in the summer camp, with their age ranged from 6 to 12.

Format	No.	Content
Lecture	3	Theories of Children and Adolescent Development
Workshop	5	Project-specific concepts and skills – engaging and building rapport with children and adolescents; curriculum plan development and teaching children with knowledge and skills
Direct Service	40 hours (10 days)	Direct service delivered to the migrant children in Shanghai
Post-service Integration	2	Sharing, group presentations and consolidation of experiences

Table 1: The content and format of the service learning subject

This paper aims to explore the gains of the students after taking this service-learning subject based on Dewey’s ideas of education and citizenship. Two research questions are addressed:

- (1) What did the students learn from their service learning experience?
- (2) How did the students link themselves to their roles and responsibilities as university students, citizens and professionals-to-be?

To address the questions, reflective journals of the students after the service were analyzed. As suggested by Bringle and Hatcher (1999), experience becomes educative when “critical reflective thought creates new meaning and leads to growth and the ability to take informed actions” (p. 112). Reflection, hence, is an educational tool that turns experience into knowledge and growth. Thus, the reflective journals of the students are useful educational tools to share the insights of the students on their meanings of the service as well as their benefits they obtained from the service-learning subject.

METHODS

Participants

As the first author led 20 university students in delivering a summer camp to the migrant children in a non-government organization in Shanghai, the reflective journals of the 20 students were analyzed. The students were the first-year students of The Hong Kong Polytechnic University, coming from different disciplines including, occupational therapy, physiotherapy, radiotherapy, nursing, accounting, business management, hotel management, building and construction etc. There were 17 local students, and three were non-local students coming from mainland China.

Data Collection and Analytical Plan

The students were requested to write a reflective journal (around 1,000 words) on what they had experienced and learned from the service. Informed consent on the use of reflective journals for research purpose from the students was sought. To analyze the students' reflective journals, theme analyses pattern coding was carried out. Miles and Huberman (1994) suggested that pattern coding is "a way of grouping those summaries into a small number of sets, themes, or constructs...it's an analogue to the cluster-analytic and factor-analytic devices use in statistical analysis" (p 69). Basically, the broad themes in the reflections were extracted from the reflections of the informants. A general qualitative orientation was adopted in this study (Shek, Tang & Han, 2006).

RESULTS

In general, the students had a fruitful experience in the service learning subject and gained much from serving the migrant children in mainland China. Based on 20 students' reflective journals, eight themes were extracted from the personal reflections. Table 2 shows the themes as well as the numbers of the reflective journals mentioning the themes. All the extracted themes had been mentioned by at least 50% of the students in their reflective journals. The themes are presented in the following sections.

Themes	No. of reflective journals mentioning the theme	Percent ^a
Enhancement of intrapersonal and interpersonal competence	19	95%
Reflections on attitudes towards life and learning	11	55%
Application of learned knowledge into practice	20	100%
Facilitation of team work	19	95%
Development of passion to help the underprivileged children and adolescents	18	90%
Cultivation of civic responsibility	16	80%
Nurturing of awareness to social problems and issues	15	75%
Reflections on the roles, responsibilities and contributions as professionals in future	10	50%

^a The percentage is calculated by dividing the no. of reflective journals mentioning the theme over total reflective journals analyzed

Table 2: Themes of students' reflective journal on the service learning subject

Research Question 1: What did the Students Learn from their Service Learning Experience?

Enhancement of Intrapersonal and Interpersonal Competence

The students enhanced their intrapersonal competence such as emotional competence, problem-solving and decision-making capacities, as well as interpersonal competence such as social competence, communication skills. Here are some examples of the students' reflections:

"I am not a very sociable person before. However, after nearly 4-month of collaboration with different people, I learned to think more from other ones' standpoints and now I can express myself more efficiently and properly in communication." (Case 3)

"This subject benefits me a lot, which enhance my cooperation skill, communication skill, emotional quality, build up my confidence, let me be more independent and so on." (Case 6)

"In personal growth, I discovered that I manage my emotion better now. Before going to Shanghai, I am very emotional. It is difficult for me to constrain my feelings. During the service in Shanghai, I learnt to be peaceful." (Case 13)

"Not only consider my strengths, improving my weakness would be one of the concerns when I applied this subject. Although I am a detail-minded

person who is punctilious in making my own schedule, I find it hard to change according to the circumstances and always stick to my plan. Fortunately, I learnt to be more flexible in this service trip.” (Case 14)

“In Shanghai, I have faced many problems and unexpected [circumstances], including the conflicts between classmates, the changes in lesson plan, how to flexibly use available materials and venue etc...I think that giving workable and efficient solutions to problems is a challenging task. Facing real difficulties is a good chance for learning.” (Case 16)

Reflections on Attitudes towards Life and Learning

The interactions with the migrant children stimulated the students to look into their lives and learning. They were impressed by the resilience and positive attitudes of the migrant children. Here are some examples of the students’ reflections:

“Even though their [the children’s] living environment may not be stable, they still kept smiling faces when encountering difficulties... they never give up the opportunity to learn. Rather than say we brought hope to them, they actually brought inspiration to us. Their positive and enthusiastic attitude made me ashamed. In contrast, we, children in Hong Kong, usually live with our parents in a relatively stable environment. We do not cherish the time being with them and always complain about the living environments....What they brought to us is our own reflections towards lives.” (Case 7)

“I found the things that we have to learn from them [the children] – their innocence and passion for learning...It reminds me that the importance of passion for learning. In the process of learning, we need to act like a child, and keep the desperation for knowledge.” (Case 12)

“Looking at the little boys and girls, I think I am looking at myself. Actually, I was one of the underprivileged children when I was small...I have overcome the major problem from my family and I now study in the university.” (Case 15)

Application of Learned Knowledge into Practice

The students needed to apply what they have learned in the subject and their knowledge from their disciplines in designing the curriculum of the summer camp. The experience was a fruitful one when they managed to teach the knowledge to the children. Here are some quotes of the students’ reflections:

“In the pre-trip lectures, we learnt to address the needs of children. I found this very important when delivering our service as it can help improving our teaching quality.” (Case 1)

“As we have to design lessons for the children, it is important to integrate our knowledge into practice...I think I can apply my health knowledge into practice efficiently...I reminded them [the children] of their wrong practices every time they did. I am very pleased that my students really learnt what I have taught and started to get rid of those habits.” (Case 4)

“Apart from the academic knowledge (e.g. English and Health Education) conveyed, we also put emphasis on the protective factors which helped facilitate the positive development of the children.” (Case 14)

Facilitation of Team Work

The students learned to work as a team so as to facilitate the collaborative learning process. Besides, the students also gain friendship in working together. Here are some examples of the students’ reflections:

“The 5-day service there was not an individual mission, but a team work. We helped each other during the lessons...Other than cooperation, I learnt

to seek help in this trip...I learnt to listen, respect and accept others' opinions" (Case 1)

"One of my most important gains from this course is a circle of sincere friends from different faculties with specialized knowledge and skills. We learned from each other, offering help both during and after service and progressed together. I will keep my sincerity towards friendship and continue to expand my social networks by utilizing the interpersonal skills I have developed." (Case 3)

"Working as a team, we discovered each other's strengths and potentials. Being told by my teammate, I found myself to be a patient and observant person." (Case 17)

Research Question 2: How did the Students Link Themselves to their Roles and Responsibilities as University Students, Citizens and Professionals-to-be?

Development of Passion to Help the Underprivileged Children and Adolescents

The students became more passionate in interacting with the underprivileged children, and shared their love, concerns and aspirations with the children. Here are some quotes of the students' reflections:

"I enjoyed the moments with children and helped them with my love, care and passion." (Case 3)

"I have given out my warm heart to migrant children to encourage them to be brave and hardworking. I hope what I have done can be something to their life." (Case 5)

"My passion in helping the underprivileged children and adolescents has soared... This makes me more passionate to teach them what they want and help them with my ability." (Case 11)

Cultivation of Civic Responsibility

The experiences helped the students to explore their roles and responsibilities as a university student and a citizen, and motivate them to continue to serve the deprived community as a mission. Here are some quotes of the students' reflections:

"In the future, I would seek for more opportunities that I can work on with my greater passion in helping them, for example, I have already registered to be a voluntary tutor helping the underprivileged students in Hong Kong. I would also remind myself how lucky I am." (Case 2)

As a university student, I have the responsibility to serve the community and help those in need. In this trip, my role is not only a teacher or a big brother to migrant children, but a role model. My situation of coming to Hong Kong from hometown is similar to their [the children's] coming to city from villages. So I myself is a model for them: no matter where you come from, once you want, you do, then you make it." (Case 5)

"As a global citizen, I perform my task by showing others love and care should have no geographical boundary." (Case 8)

"University students should act as the role models. The word 'role models' implies two meanings. One is applied in the service, which means that we are the role models of the underprivileged children and adolescents...The other means that we should be the role models among the society. Being regarded as the group having critical thinking and care on social issues, our actions like fighting for the rights of the underprivileged would arouse public attention in concerning the needy." (Case 14)

"With the identity of a citizen, I think I also have the responsibility to offer a helping hand to people in need in China. More than that, I can share my experience to my family and friends around me to arise more concerns for them [the children]. Hopefully, [I can] offer more helping hands for them."

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(Case 17)

Nurturing of Awareness to Social Problems and Issues

Through understanding the needs and situations of the migrant families in China, the students became more sensitive and aware of the social problems and issues underneath the phenomena. The students became more critical in understanding and analyzing the social issues. There are some quotes of the students' reflections:

"It is important to be sensitive with our surroundings and the events happening worldwide...There are a lot of different groups that need our support." (Case 2)

"As a Chinese citizen, I understand that urbanization, though advancing Chinese economical competence, makes these children from migration family sacrifice. Therefore, I treated these children with empathy and avoided any of them to be marginalized." (Case 3)

"Experience of doing the service in mainland China provides me a platform to learn how to embrace the cultural diversity, such as respecting their lifestyle and local policy." (Case 8)

"Apart from the different mode of education, I also understand more and discriminate less about the act of Chinese...I try to look from other angles." (Case 20)

Reflections on the Roles, Responsibilities and Contributions as Professionals in Future

The experiences also touched their reflections on their roles, responsibilities as a professional in the future. They developed the ethical perspectives in their professions to serve the community. There were some examples of the students' reflections:

"As a nurse to be, my roles and responsibilities would be promoting and educating the importance of prevention of diseases, protection and rehabilitation of health. I have to take care of their [the children's] safety." (Case 2)

"I began to reflect...Being a radiographer three years later, it is my role to care for every patient. To understand their needs and then make the most appropriate treatment. Although I cannot cure them, but the most needed for patient is actually support. Thus, this service trip helps me in developing compassion to care for people which is one of my roles in future career." (Case 4)

"I am a nurse in the future, I may face numerous unexpected situation. It is important for me to know how to overcome difficulties and make decision soon." (Case 6)

DISCUSSION

From the reflection journals of the students, the research questions were addressed. The students learned rewardingly while serving the migrant children and adolescents in Shanghai. They have undergone self-development that have enhanced their intrapersonal and interpersonal competence, improved their problem-solving ability and decision-making capability, develop friendship and team spirits with their group-mates, and apply what they have learned in the practice. More importantly, the students have good reflections on their attitudes towards life and learning. The experience helped the students reflect on their beliefs, lifestyles and interest, which may result in the cultivation of one's characters and aspirations. The service learning experience went beyond self-development and self-cultivation, it connected the students with the society where they belong. The students reflected on their roles and responsibilities as university students, professionals-to-be and citizens. The learning and serving experiences built up the passion of students to serve the underprivileged children and adolescents, cultivate their civic responsibility, developed awareness to social problems and issues, and built up professional rigors to serve the community and mankind.

It has been criticized that the outcomes in tertiary education concentrate much on academic

and occupational domains, with holistic development of young people being ignored (Shek & Wong, 2011). Chickering (2010) also strongly commented that universities “have generally ignored outcomes related to moral and ethical development as well as other dimensions of personal development” (p.1) and “have failed to graduate citizens who can function at the level of cognitive and moral, intellectual, and ethical development that our complex national and global problems require” (p.3). Under these criticisms, service-learning subject carry special mission in the universities nowadays. It helps to nurture the positive development of the students, and cultivate the sense of civic responsibility in serving the community with passion and ethics. As suggested by Dewey (1900) that the schools should share the mission that “introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guarantee of a larger society which is worthy, lovely, and harmonious” (p. 44), the service learning experience offers holistic development to university students in their transformation to adulthood, and prepare them to become ethical and responsible citizens in the future.

There are some strengths of the study. First, it describes the effectiveness of a novel service learning project that helped a vulnerable community of migrant children in mainland China. Through the project, the university students taught knowledge and skills, induced hope and aspirations, shared love and care to the migrant children. Second, the reflective journals give long, detailed and vivid reflections of the students involved in the subject. Third, the use of qualitative study gives rich content and insightful thoughts on understanding the meanings of the subject to the students, through its naturalistic research design and inductive logic of analysis (Leung & Shek, 2011). Last but not the least, the study focused on the reflections of the Chinese students on their involvement of a service learning subject, which was very limited in the Chinese community.

There are several limitations of the study. First, as the data were collected from only 20 students, the generalization problem of the findings should also be noted. Second, since the students wrote their reflective journals as an assignment of the subject, there may be positive biases in the students to give constructive feedback. Third, besides reflective journals, more interactive forms of qualitative evaluation strategies such as individual interviews or focus groups were encouraged to understand the personal views and subjective experiences of the students. Nevertheless, the service learning experience of the students has provided thoughtful insights for educators and scholars in formulating and implementing educational strategies to nurture the self-development and civic responsibilities of the students. As recalled by a student in her reflective journal, “[I] still remember the last day before parting, children are crying and telling that they do not want us to leave. That is a really touching moment and I know that we, the volunteers have already made a difference on them [children]. In the future, as a responsible university student, I will continue to join voluntary service. Not only because I have to, but I want to” (Case 4), we do believe that the rewarding experience would continue to brighten up the life of the migrant children, as well as the university students.

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Poster Abstracts

Exploring the Localization of Service-learning in Mainland China——Take Zhejiang University as an Example

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ABSTRACT

As a foreign theory, service-learning is still a new concept in Mainland China. At present, it is implemented mainly with two forms of social practice and volunteer action. However, the limitations are obvious, including neglect of academic essence, lack of professional guidance, absence of reflective practice, and deficiency of mutual benefit. In this paper, an innovative exploration in Zhejiang University is introduced. A service-learning curriculum named Legal Clinic is created by Guanghua Law School. Five steps of planning, training, service, reflection and assessment are well-designed and carried out. Good cultivation results and social effects have been obtained in a six-year practice. In future, there are two promising ways to localize service-learning in Mainland China, which are developing the project-based pattern and establishing the course-based pattern, respectively.

Key Words: localization, service-learning, Mainland China, Zhejiang University

1. INTRODUCTION

So far, service-learning has become an important and indispensable part of the higher education worldwide (Moore & Lin, 2009), while it's still a relatively new concept in Mainland China. The localization of service-learning is a potential solution for the existing problems in higher education in Mainland China.

2. SERVICE-LEARNING IN THE CHINESE CONTEXT

There are two main forms of existing localization attempts, namely social practice and volunteer action. These attempts have played a positive role to improve overall quality of students. However, there are four limitations of neglect of academic essence, lack of professional guidance, absence of reflective practice, and deficiency of mutual benefit.

3. INNOVATIVE EXPLORATION IN ZHEJIANG UNIVERSITY

Zhejiang University carries out reforms on establishing a practical teaching system by introducing service-learning into courses. The Legal Clinic is one of the typical cases.

3.1 Implementation process of Legal Clinic

The Legal Clinic attempts to integrate American clinical legal experiences with Chinese legal curriculum. It takes innovative exploration with 5 steps (Lu, He & Zhang, 2013).

Planning

Curriculum type: specialized elective course in Guanghua Law School;

Teaching object: undergraduate senior and postgraduate of Juris Master;

Teaching target: cultivate outstanding legal persons with legal expertise who pursue fairness and justice;

Study period and content: 24 credit hours for classroom instruction and 24 credit hours for extracurricular activities.

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Training

There're 6 permanent instructors (3 professors and 3 associate professors) and some part-time instructors (judges and lawyers). Students are taught different areas of law and practical contents of meeting with clients, investigating and obtaining evidences, persuading and negotiating, etc. They also go through simulations such as moot courts, legal drafting, and client interviewing exercises to strengthen practical knowledge.

Service

The course combines nonprofit law service for community with academic context. Students are divided into several groups (5 students per group) to contact with real clients and solve legal issues. By taking charge of real cases, they determine the scopes of problems and become pro-active participants in consulting, writing legal documents, acting as agents or defenders by themselves.

Reflection

Reflection is a must before, in, and after service. Reflection reports (at least 2 reports per semester) on hands-on experiences are asked to be summarized. Students can take all kinds of reflection, such as personal journals, thoughts about case handling, photo exhibits, videos, posters, portfolios, letters, sculpture, paintings, research papers, etc.

Assessment

Assessments consist of classroom performance, legal service, and paper, which accounts for 30%, 40%, and 30%, respectively. Students' performances in classroom, achievements in handling cases, clients' degree of satisfaction, and quality of reflection reports are important factors for consideration.

3.2 Achievements of Legal Clinic

After six years of practice (2008-2014), more than 200 students have taken this course. Up to now, students have received about 1,100 telephone consulting and act as the agents for more than 60 cases; each student has handled 1-2 cases at average.

After taking the course, self-directed learning ability and case-handling skills are enhanced for the students. They are impressed with the cycling learning mode of "learning, practice, reflection, relearning, and re-practice", which can be a learning pattern in their career.

The course makes students become qualified citizens who are not only responsible for themselves but also for others, and the whole society. Good social reputation is gained because many poor persons get help from the course.

4. CONCLUSION

Chinese universities are suggested to develop two types of service-learning. Firstly, the existing practice can be optimized and form project-based service-learning. Secondly, the higher education pedagogy can be innovated and establish course-based service-learning.

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Assessment of Benefits of Innovative Service-learning Teaching Tools – How Taiwan Can Promote Campus-wide Service-learning Courses

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ABSTRACT

The purpose of this study is to explore how innovative service-learning teaching tools can be used to promote campus-wide service-learning courses in Taiwan. This case example shows how a university in northern Taiwan incorporates the innovative service-learning teaching tools to strengthen service-learning as a teaching-learning strategy and elevate lifelong voluntary service intention. At the same time, a quantitative questionnaire with adequate reliability and validity was administered to students who used the teaching tools in 2011, in order to further evaluate service-learning teaching tools in three aspects including usage experience, map usability and learning benefit.

A total of 439 questionnaires were collected. On the aspect of usage experience, Experiences in using the Lifelong Service-learning Map, results showed that on average, students used “Class Announcements” and “Class Selection System” more often. Regarding the aspect of map usability, Usability of the Lifelong Service-learning Map interface, results showed that students believed that “Guidelines for Choosing Classes” on the Course Map was most beneficial for choosing courses and students rated 3.58 points as the highest score. Lastly on the aspect of learning benefit, Approval of learning benefits from Lifelong Service-learning Map, The mean for “approval of learning benefits” was scored 3.54 by the students, who were generally satisfied. After the teaching tool was activated in 2011, Google Analytics was used to conduct objective data analysis of online usage behavior. In the 2012 academic year, there were more than 350,000 visits to the site; most visits occurred in September and October (first semester) and January to March (second semester). On average, in one single visit a user would view 13 pages, and the average time spent on the website was 7 minutes. Analysis of the pages viewed showed that most people visited the Class Selection System, followed by Curricular Structure, and then followed by Class Announcements.

Results of the study showed that innovative service-learning teaching tools can significantly guide and benefit learning, including increasing the understanding of instructional objectives in service-learning, establishing lifelong service-learning intentions, elevating advanced understanding for service-learning programs, increasing autonomy in elective courses, and strengthening the learning benefits of observations. The study further proposes tactical suggestions for the institutionalization of service-learning, including systematic administrative assistants, such as assistance in formulating service-learning course maps; instructional assistants, such as the overall planning and promotion of service-learning courses; and technological system connections such as the development of apps or overall connections of student information systems for schools.

Key Words: innovative teaching tools, campus-wide service-learning courses, course map

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DISTRICT-BASED SERVICE-LEARNING

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ABSTRACT

District-based service projects can build an effective service model for bringing long-term benefits to the local communities. It can also foster caring culture, promote social inclusivity and expand social capital through concerted effort in carrying out integrated and sustainable service projects. With the success of the Shamshuipo District-based Service-Learning Program in Hong Kong during 2010-12, The Hong Kong Polytechnic University has extended the Program to the Yau Tsim Mong District in Hong Kong from 2012. This paper will focus on the effectiveness and result of the extended program in the Yau Tsim Mong District during 2012-14.

Key Words: Service-Learning, District-based community service, Inter-disciplinary collaboration

1. BACKGROUND & AIM

The Hong Kong Polytechnic University (PolyU) is the first university in Hong Kong to introduce a mandatory Service-Learning Requirement (SLR) in the undergraduate curriculum. All undergraduates are required to complete a credit-bearing SL subject for graduation. PolyU's pioneer work not only can promote the development of service-learning education in Hong Kong, but also facilitate collaboration between universities, government, welfare sector and business community for the betterment of our society.

With the combined efforts of PolyU, the Shamshuipo District Welfare Office, non-governmental organizations (NGOs) and schools, the District-based Service-Learning Program was first introduced in 2010 in the Shamshuipo (SSP) district. It is the poorest district in Hong Kong with the lowest median household income, a high percentage of elderly over 65 years old, and a high population of new immigrants, according to the statistics reported by the Hong Kong Census and Statistics Department (C&SD). In 2010-12, over 500 students had participated in serving more than 4,000 people in SSP district and contributed over 5,000 service hours. This Program won the MacJannet Prize for Global Citizenship presented by the US-based Talloires Network in 2012. The project was awarded the third prize and PolyU was the only university from Hong Kong out of the 72 nominations from 52 universities in 21 countries around the world.

Following the success of the District-based Service-Learning Program in Shamshuipo (SSP) District, PolyU has extended the Program to Yau Tsim Mong (YTM) District in 2012.

2. THE PROGRAM

District-based service projects often can create bigger impacts to the community because this particular service model has the following advantages:

- better identification of community needs
- consolidated resources in community building
- integration of services in serving the needs of local people more holistically
- sustainability of services and measurement of longer term impacts to the community

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The extended program in the YTM district was organized with the combined efforts of PolyU, YTM District Social Welfare Office, and over 18 NGOs or schools in the YTM District. The district is amongst the oldest districts in the urban area in Hong Kong. It has a high population density, ranked the third in Hong Kong (C&SD, 2011). Demographic profile ranges from the elderly to the youngsters and from old residents to new arrivals and ethnic minorities. Needy groups identified in the district include disadvantaged children and youths, ethnic minorities, new arrivals, low-income families, and disadvantaged elderly.

During 2012-14, over 400 students from different disciplines worked collaboratively in 17 SL service projects with various nature including health care, education, improvement of the living environment and social integration. For instance, students majoring in Textiles and Clothing teamed up with students from other disciplines helped ex-mentally ill persons integrate into the society through fashion design and catwalk show; Optometry students joined hands with students from different disciplines to provide vision screening services to school children and the elderly, etc.

3. METHODOLOGY & RESULTS

Students participated in the service projects held in the YTM District during 2012-14 were invited to complete the pre-and-post surveys. The surveys aim to: (1) measure the impact of the service-learning experience on the development of students' generic competencies, (ii) evaluate students' service-learning experience, and (iii) collect student feedback and suggestion for improvement on the SL subject/project. All data collected are analyzed by the Statistical Package for Social Sciences (SPSS).

Since September 2012, over 400 students had participated in 17 SL service projects in the YTM District and committed over 15,500 service hours, serving the needs of the elderly, school children, new immigrants, ethnic minorities, lower-income families and ex-mentally ill people. The findings indicate that students ($n=410$) have gained a statistically significant improvement in the four generic competencies measured, including interpersonal effectiveness (effect size = 0.452, $p < 0.001$), teamwork (effect size = 0.317, $p < 0.001$), problem-solving (effect size = 0.370, $p < 0.001$), and social responsibility (effect size = 0.520, $p < 0.001$).

4. CONCLUSION

District-based Service Learning has proved to be an effective mode of service delivery. Through the provision of diversified services, various needs of the community people are better addressed. Also, by focusing our services onto one district, our resources can be better consolidated and utilized. With the university's full implementation of Service-Learning as of 2012, we shall continue our services in the YTM District in the years ahead. By carrying out more sustainable service projects, we shall consolidate our project and student learning outcomes. Further research will also be carried out in measuring the impacts of our long-term services to the community.

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Biyahe ng JEEP: SL-DB Initiatives in the Junior Engagement Program

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ABSTRACT

The Junior Engagement Program (JEEP) is one of the four subcomponents of the Integrated Ateneo Formation (InAF) Programs. It is the formation program designed for third year undergraduate students of the Ateneo de Manila University. It serves as the praxis component for the Philosophy of the Human Person class, one of the core subjects at the Ateneo. This program enables students to go beyond themselves by being and engaging with the ‘other’ (or those outside of their social milieu) through their experience of labor. The program uses the image of a jeepney, the most common and cheapest form of transportation in the Philippines where an encounter and/or interaction with the ‘other’ occurs.

JEEP is run in partnership with different offices and institutions. Student Affairs Professionals from the Office for Social Concern and Involvement (OSCI) facilitate the area engagements of students by partnering with institutions from various identified sectors (labor-formal, labor-informal, environment, elderly, government, and volunteer groups). Students, usually organized in blocks of four, are required to participate in and experience the work of people from these sectors for 16 hours, for four hours a week in four weeks. Some work as baggers, caregivers and street vendors. Others use skills learned from their degree programs to provide services. Philosophy teachers process the experiences of their students through a philosophical lens. A social analysis session facilitated by OSCI synthesizes students’ experiences and widens their perspective of their JEEP sector.

JEEP is pilot-testing several program innovations through the entry of service-learning. In partnership with academic departments, different models have been designed and tested. There are two basic approaches in incorporating service learning in JEEP. The first is service-learning (SL) as a credit-bearing experience, where students participate in activities that help a community or institution. These activities are related to their course content (Bringle & Hatcher, 1996). Hence JEEP becomes incorporated in an academic/ course subject aside from the Philosophy of the Human Person. For example, JEEP collaborates with a Fundamentals of Public Management class. Here, Political Sciences students are assigned to participating departments from national and local government units. They are exposed to these agency’s processes and systems and are required to write a good governance paper, which they present in class and to their respective institutions. Institutions may opt to adopt the recommendations from the students, such as the systems operation study for the health center in Barangay De La Paz.

The other approach being practiced in JEEP is the discipline-based approach. The discipline-based (DB) approach is defined by Alzona (2013) as “an Ateneo approach to formation that makes use of knowledge and skills related to one’s discipline or course to serve development institutions and marginalized communities” (slide 11). This approach is utilized by the students from the Health Sciences Program. Students go to institutions or areas related to health – public health centers. Being assigned to a health center provides them with a glimpse of the systems in public health in the Philippines.

Incorporating service-learning and discipline-based approaches to JEEP was possible with the support of faculty members from the different academic departments. These faculty members help identify subjects where JEEP can be incorporated, as well as student skills that can be matched with the needs of partner institutions. They serve as a bridge between the students and OSCI professionals. Most students under service-learning and discipline-based JEEP tend to be more receptive to the program, because they are aware of the implications of JEEP to their disciplines and/or subjects. These faculty members also aid in contextualizing JEEP for students

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with regards to their discipline. They often help in deepening of the social analysis session of students.

Some courses and disciplines are also easier to be matched with a specific area or institution. It was clear from the very beginning what the course is about and thus what type or area or institution it needs. This emphasizes the importance of close coordination between the faculty from the academic department and OSCI formators.

The entry of service-learning and discipline-based approaches in JEEP was gradual and not easy. Students only stay in their respective areas for a limited time. Scheduling also becomes a problem as students under SL/DB have limited choices for schedules. More often than not, students have limited breaks and these may or may not match that of the area/ institution's schedule. Service-learning and discipline-based JEEP gradually entered also because of the current types of areas and sectors that OSCI has. Some courses required areas that are not in the current roster of JEEP, such as community cooperatives. Thus formators look for additional areas that can best suit a specific course/ discipline. But more than serving the needs of the specific course, the needs of the areas must always be taken into account. Community and/or institutional impact must always be considered. As mentioned, faculty members play an important role in the success of implementing service-learning and discipline-based initiatives in JEEP. If OSCI professionals have difficulty in coordinating with a faculty member, organizing JEEP activities becomes a struggle. Thus it is important to identify the roles of partner faculty and OSCI formator.

With the entry of service-learning and discipline-based initiatives, we hope to form men and women for others and eventually professionals for others or those who will use their skills and competencies in helping and serving. Establishing service-learning and discipline-based approaches may have been far from easy in JEEP. But with small steps and continuous explorations being done, JEEP can be an innovative tool for service learning.

Keywords: JEEP, student formation, service-learning, discipline-based

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A Service Learning Project on Inter-Professional Collaboration to promote health and wellness in community organisations

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Key Words: Inter-professional collaboration, healthcare, health promotion, elderly, disability

1. INTRODUCTION

Service learning (SL) is a new subject in PolyU and it is effective to let healthcare professions students learn about serving people in the community. Students have to organize activities that are health-related, yet these are not confined to their respective healthcare professional boundaries. Integrating this subject into the professional curriculum of the healthcare disciplines is timely and well aligned with the current worldwide trend of embracing inter-professional collaboration in healthcare. In the following sections, the organization and the outcome of this subject will be discussed.

2. METHOD

This subject was offered for the first time by the Department of Rehabilitation Sciences in Semester 2, 2013-14. The subject aims to provide needed services for the NGO's while letting students have a first-hand experience of organizing and planning these activities. The experience would also enhance their generic competencies such as leadership, problem-solving and teamwork, as well as develop their social awareness.

120 students from general and mental health nursing, physiotherapy, and radiography programs were enrolled in the subject. The students were divided into 4 tutorial groups, and each group worked with a NGO partner. They received lectures the first 5 weeks, which focused on basic principles and knowledge such as professional ethics, and common problems of clients. Each group was led by an experienced physiotherapist or occupational therapist. Table 1 is a summary of the 4 groups, their NGO partners and activities performed.

3. RESULTS

At the beginning, the students were encouraged to come up with innovative ideas and design the activities they wanted to deliver. Prior input was also sought from the NGO partners for some directions of the activities. In the end, some groups conducted exercise classes with the clients, while other activities such as "snack-making" and "magic show" were initiated by students. All the participants enjoyed the activities very much, and established rapport with students.

Students were assessed on their performance in the service delivery in several ways, which included keeping a brief logbook, group presentation, reflective journal and class attendance. Students have expressed their views very positively in the reflective journals.

Table 1: NGO partners and service learning activities of 4 tutorial groups

Group	NGO partner	Description of NGO	Activities
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1	Wai Ji Christian Service	Provide residential and daytime services to people with mild to moderate level of intelligent disability (ID).	1. health assessment 2. snack-making and magic 3. mini-sports day 4. video production –exercises for stroke patients
2	Hong Kogn PHAB Association (Unity Place)	Provide services for clients with different physical and mental impairments.	1. health assessment 2. exercise groups 3. health talks 4. snack-making
3	Helping Hand (Po Lam Jockey Club Housing for the Elderly)	Elderly residents are independent for their daily life activities.	1. physical and cognitive assessment 2. cognitive stimulation games 3. snacks making
4	YWCA (Wan Wah Care & Attention Home for The Elderly)	Residence for elderly persons with different levels of physical or mental disabilities.	1. exercise groups 2. dementia training groups 3. small groups for bed bounded clients 4. outdoor walking groups

Following the completion of the subject in May 2014, the teaching team conducted focus group interviews with the students and the comments were very positive. Here are a few examples:

- The students were amazed that MR and elderly clients are way more independent and intelligent than expected. Most students said they had changed their perceptions of different people now, and this will affect how they approach their clinical patients in the future.
- They experienced difficulties in working with other teammates. They tried different methods to improve the teamwork and overcome problems that arose in the process.
- The NGO staff were very supportive and had good communication with students

Focus groups were also conducted with the liaison persons from the 4 NGOs and their comments were useful for making improvements in future running of this subject.

Benefits to clients and center:

- Students were well organized and conducted events systematically for clients in respective centers
- The center staff appreciated the debriefing session by tutors after each service session, which made them understand more about the students' learning.
- This is a good experience for students to appreciate the reality of workplace, and they can build up their work sense and communication skills with clients.

Suggestions for improvement:

- More training was needed for students to talk actively with clients.
- The schedule was very tight that no room for make-up sessions whenever necessary

The Office of Service Learning at the Hong Kong Polytechnic University conducted an independent survey before and after the subject was run. The results revealed statistically significant improvement in the generic competencies of the students – in the 4 items of (i) interpersonal effectiveness, (ii) teamwork, (iii) problem-solving, and (iv) social responsibility. These results are very rewarding for the teaching team indeed.

4. CONCLUSION

On the whole, both the staff and the students found this experience very useful to prepare them for their future clinical placements. It is envisaged that this subject will continue to grow and provide useful services for the local community as well as our students. In the academic year 2014-15, this subject will be offered in both Semester 1 and 2. Based on the experience gained in the previous year, we plan to improve the organization of the tutorial groups and the activities for the NGO. New NGO partners are also being explored and we hope to make the experience to be even more fruitful for the students.

A Service Learning Subject Cultivates University Freshmen's Social Responsibility through a Health Ambassador Scheme: Mentoring Health Ambassadors in School Communities

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ABSTRACT

A Health Ambassador Scheme (HAS) was established at the World Health Organization Collaborating Centre (WHO CC) School of Nursing, PolyU in 2010 with the aim of promoting health by giving university and primary school students opportunities for engagement and leadership. University students acted as the mentors of the primary school students. The HAS provides a framework for engaging school communities in healthy eating and active living. It involves a holistic approach and a community-campus partnership in which both sides work together to create an environment that has a positive impact on a child's health and learning. Healthy children make better learners, and better educated children are healthier. It is an innovative and effective approach to communicating important health information to peers in school communities. School policy makers can integrate the components of the HAS into school health policy to enable young leaders to promote health with a sense of belonging in school communities.

Key words: university freshmen, service learning subject, social responsibility, mentoring

1. INTRODUCTION

To appreciate the essence of service learning and apply the knowledge acquired from the core subjects, the subject team has designed a service-learning subject entitled "Mentoring Health Ambassadors for School Communities" via the PolyU School of Nursing's HAS, with the aim of enabling university freshmen to gain experiential learning and to provide them with opportunities through high-impact practices of mentoring and service learning. Service learning integrates community service with academic instruction so that each strengthens the other, and the subject assessment components also provide time for reflection and critical thinking while making significant contributions to individuals, organizations and communities.

2. AIM

In the service-learning subject, university students participate in service to the community either through enrolment in credit courses offering service learning as an option or requirement, or through participation in a co-curricular service-learning program on campus. The purpose of the mentoring and service-learning within this newly-developed subject is to utilize what university freshmen have learnt from the taught subjects to then equip and mentor primary school students and train them as health ambassadors. These student ambassadors thus acquire basic health screening skills, communication skills, and health education knowledge that enables them to deliver health talks, promote healthy lifestyles, and perform simple first-aid procedures for their peers in the school setting.

3. DEVELOP AND IMPLEMENT A SERVICE-LEARNING SUBJECT

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Children and adolescents are healthy in Hong Kong, but childhood obesity and sedentary lifestyles are prevalent due to, amongst other reasons, not practicing regular exercise and having mental health problems with substance abuse at a younger age. The school setting can positively influence the lifelong physical, social and mental health of students. In 2005, the WHO found that the school health promotion activities that were most effective at changing behaviors in schools were those that focused on positive well-being behaviors, physical participation and healthy dietary habits. There is a need to determine what practices and activities best support the school development plan, which is aligned with the objective of 'better schools through health' since it affects the health and behavior outcomes of students and their learning.

The development of the service-learning subject entitled: "Mentorship health ambassadors for school communities" consisted of three stages: Stage 1 – curriculum development and training, Stage 2 – program implementation and mentoring, and Stage 3 – program evaluation and report writing. In the first stage, the subject leader and the subject team met and identified learning objectives and content in the development of the HAS in the school communities, including the theoretical framework and principles of primary health care, the role of mentoring, leadership skills, family and life, and curriculum to train technical skills and professional knowledge. A project plan for experiential learning for the university freshmen. Hands-on job training to implement the mentorship health ambassador program were conducted, and training materials were developed including basic skills and knowledge in performing simple first aid procedures, performing health screening and health education on nutrition and exercise.

Health Ambassadors were expected to apply what they had learnt from the training program to provide basic health screening and nursing skills in the assigned primary school with the health ambassadors under the mentors' leadership and supervision. The university freshmen acted as mentors and worked together with the health ambassadors to launch and deliver a series of school health education and health promotion activities including promoting regular exercise, physical well-being and personal hygiene. A one-day summer camp was planned with the aim of recapping and reflecting on what they had learnt, and to share these valuable experiences (Lee et al., 2013).

4. IMPLICATION OF THE PROJECT

The HAS mentorship training program has demonstrated its impact in helping university and primary school students to adopt their assigned roles in promoting healthy eating and active living to the primary school students and their parents in the school community. It is an innovative and effective approach to communicating important health information to peers and their family members in school communities. School policy makers can integrate the components of the HAS into school health policy in order to enable young leaders to promote health with a sense of belonging in school communities.

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Biomedical Service - Towards the 10th Year Anniversary

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ABSTRACT

The Biomedical Engineering Discipline at The Hong Kong Polytechnic University (PolyU) started to offer rehabilitation service to people with physical disabilities on Chinese Mainland in 1995. In 2001, with the support of the University funding for students' learning experience on Chinese Mainland, the undergraduate students with concentration in Prosthetics and Orthotics (P&O) were under the supervision of the academic staff to provide voluntary orthotic service to children with cerebral palsy in Maoming City in Guangdong Province. The students were then supported to visit hospitals, rehabilitation centres and resource centres in Guangdong Province in the following years. In 2005, the School of Engineering at the University of Pennsylvania collaborated with PolyU to set up an annual Global Biomedical Service project which aimed to facilitate students of the two Universities to participate in community service learning project on Chinese Mainland.

The participants could benefit from an international exchange of clinical, scientific and engineering ideas, in the context of a field programme that was grounded in the medical and clinical needs of a developing country. They needed to communicate with patients and their parents or caregivers. Specific clinical communication skills were required. Moreover, they needed to design which orthoses was the most effective to the patients based on their knowledge and training. During the project time, the critical and clinical thinking and communication skills of the students were assessed. Through their service and the interaction with various people, they were also expected to understand and demonstrate the role and responsibilities of both as Biomedical Engineering (P&O) professionals and as responsible citizens, and also to demonstrate empathy for people in need as a strong sense of civic responsibility.

The service project was firstly held in 2006. There were 12 students recruited from each University. Starting from the 2nd year, about 6 students from the Washington University at St. Louis joined the project yearly. For the past 9 years, the project team provided service in Guangzhou (2006), Dongguan (2007), Shunde (2008), Qingyuan (2009), Huizhou (2010), Zhaoqiang (2011), Yangjiang (2012), Meizhou and Yangjiang (2013) and Guangzhou and Shaoguan (2014). The project received PolyU Community Service Gold Medal Award in 2007, 2008 and 2011. The service in 2011 also received the Best Demonstration of Teamwork Award. Towards the ten years anniversary in 2015 the Global Biomedical Service project is now evolving from a community service project to become a Service Learning Subject at PolyU.

Key Words: Biomedical, Prosthetics, Orthotics, Chinese Mainland

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A Service-Learning Typology: Organizational Frameworks that Support Democratic Engagement within a Public University System

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ABSTRACT

This study analyzes mechanisms for promoting democratic engagement through service-learning and community outreach. The analytic lens is an American university system (i.e., approximately 320,000 students) with a commitment to civic engagement and social responsibility evidenced through teaching, research, outreach, and public service. A typology of the organizational structures observed within 31 institutions (i.e., state colleges, state universities, regional universities, and research universities) is provided. Existing service-learning typologies focus on defining the pedagogy and describing distinctions among service programs. This typology focuses more intently on institutional frameworks that sustain service programs.

Key Words: Service-Learning, Community-Outreach, Democratic Engagement, Typology

INTRODUCTION

Democratic engagement is experiencing a resurgence in higher education. Institutions—large and small, private and public, two- and four-year—have and are continuing to revisit their civic and moral purpose and are re-emphasizing the importance of community-based learning with an applied focus on real-world issues (Ehrlich & Hollander, 1999). Administrators and leaders are faced with mounting pressures to provide students with learning opportunities that will prepare them for the demands of the 21st century and equip them with critical and analytic skills to solve complex problems (Harkavy & Hodges, 2012). The ability to respond to these social pressures is linked to service-learning and other forms of applied and problem-based learning.

This study contributes to focused efforts that will hopefully breath *new* life into the democratic and civic agendas of American colleges and universities. The study is part of a larger and much more comprehensive project that explores the utilization of resources to promote and sustain institutional cultures of civic and social responsibility (e.g., funding, staffing, administrative support, faculty incentives and rewards, student opportunities, community partnerships, organizational missions and policies, and evaluation and assessment efforts). The current study builds upon seminal works (Furco, 2002, 2003; Holland, 1997) by analyzing the organizational structures of 31 institutions—which comprise a public, university system (i.e., the fourth largest in the US)—and the strategic placement as well as the functional roles of service-learning and community-outreach within each organizational framework.

KEY QUESTIONS

Where are service-learning / community-outreach initiatives structurally housed in each institution? What are their organizational roles in promoting democratic engagement?

METHODOLOGY

The study employed a case-study analysis of a public university system in the US southeast. Researchers conducted secondary data analyses of organizational charts and institutional research websites for the system's 31 institutions.

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FRAMEWORK

The conceptual framework is rooted in an emerging typology of primary organizational structures that support service programs in the university system (see Figure 1).

ACADEMIC	STUDENT
Service-learning & community outreach efforts organized within <i>academic affairs</i>	Service-learning & community outreach efforts organized within <i>student affairs/life</i>
EXTENSION	NON-EXISTENT
Service-learning & community outreach efforts organized within <i>outreach/extension</i>	Service-learning & community outreach efforts are <i>absent and/or non-existent</i>

Figure 1: A Service-Learning, Organizational Typology of a University System

FINDINGS

Findings indicate 52% (16 out of 31) of the institutions place service-learning and community outreach in student affairs/life, with the Vice President of Student Affairs/Life serving as the structural head. Findings also indicate 19% (6 out of 31) of the institutions place service-learning and community outreach in academic affairs, with the Provost (or an appointee) serving as the unit head. Approximately 13% (4 out of 31) of the institutions place service-learning and community outreach in extension services and/or units with outreach responsibilities. Finally, 16% (5 out of 31) do not have an organizational home for service-learning and community outreach.

CONCLUSION

The study's intent is to expand higher education discourse and practice in a manner that yields substantially positive student learning and community outcomes. Although specific to a single university system, the typology sheds light on primary structures and organizational frameworks that promote social and civic responsibility. Additional research is needed to confirm whether these structures are replicated within and across other public university systems as well as private institutions. Again, the goal is to create a composite portrait of service-learning and community outreach efforts across the higher education landscape and demonstrate how the referenced structures work to *advance* democratic education and civic engagement agendas in the 21st century.

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SERVICE IN GETTYSBURG, PA: PROMOTING EARLY AND CHILD LITERACY THROUGH SERVICE LEARNING AND INITIATIVE

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ABSTRACT

'Read Across America Celebration!' (RAAC) is a service program that was inspired by my personal experiences in education and desire to make a positive impact in my community. It was first organized by three students, and now has expanded and is organized by Kappa Delta Pi – International Honor Society of Education. The program required extensive planning and communication with college volunteers and service placement sites. Upon recruitment, over fifty college volunteers signed-up and six service placement sites were served. Positive feedback from parents, children, teachers, and college volunteers were received. In the future, more community-school partnerships and collaboration with campus organizations would be strongly encouraged.

Keywords: service-learning, literacy, education, community development, service

1. INTRODUCTION : INSPIRATION

Education and graduating college is a big deal for everyone. It's especially important to me as a graduate of the Philadelphia public schools, as a child of a low-income family, and as a first-generation Cambodian immigrant. Where I grew up, college just was not a prevalent topic. It was not a conversation I had with my relatives or friends, nor was it promoted at the high school I attended. Fortunately, I had a few role models in my life that motivated me to pursue what I thought was an unattainable goal; however, I know there are many others with backgrounds resembling mine who don't have such fortunate outcomes.

Just look at the facts: (1) According to the 2000 Census report, 53.3% of Cambodians in America aged 25 and up have a high school diploma. Less than 7% have a college degree (Reeves & Bennett, 2004). (2) The Children of Immigrant Longitudinal Study reveals that first and second-generation Cambodian children are underperforming educationally compared to most other immigrant groups (Portes & Rumbant, 2006). (3) Only 35% of college-goers from the School District of Philadelphia earn a college degree six years after graduating high school (Socolar, 2014).

These may seem like plain statistics, but for me, this is reality. I felt stacked up against these facts since the beginning of my college career. But what I saw in my life was only the surface and was referencing a systemic-structural issue. Educational policies and programs overlook Cambodians because data on Asian American students are aggregated and fail to display the ethnic diversity of the Asian population. The Philadelphia public schools are under-funded, over-crowded, and lacked resources for students from first-generation backgrounds. As a result of my personal experiences, I developed a strong desire to find solutions to educational issues specifically through service learning and taking initiative in my community.

2. METHODS : CREATION AND ORGANIZATION

During my sophomore year, I was hired as the English as a Second Language (ESL) & Literacy Program Intern for the Adams County Literacy Council - an organization that provides community members ESL and literacy skills lessons for employment or college. I proposed to the Education Director that I would like to coordinate an early and child literacy program. I learned that the National Education Association hosts a "Read across America Day." Inspired by this, I created the week-long "Read Across America Celebration!" (RAAC). The purpose of RAAC was to promote early and child literacy in Gettysburg, and prepare college students to be educational advocates.

2.1 Forming a Program Organizing Committee

During the first year of the program, I recruited the Program Coordinator of the Adams County Literacy Council, and an Eisenhower Institute Undergraduate Fellow to serve on the Program Organizing Committee. We came to an agreement that we will work collaboratively to make this new program a success. In the following two years, Kappa Delta Pi Honor Society of Gettysburg College became the official program committee since it aligned with their 'Literacy Alive!' program.

2.2. Defining the Program Components

RAAC consisted of three components: service-reading program, literacy film or professional panel discussion, and Ballroom celebration. In the service-reading program, college student volunteers had the opportunity to go into day cares or elementary schools and led literacy activities for 30 – 45

minutes. Literacy activities ranged from read-aloud, interactive plays, arts and crafts with words, and more. In addition, the literacy film or professional panel discussion were public panels about literacy in a specific context. Past panels were on the Cuban Literacy Campaign, and improving literacy practices of students with diverse needs. Lastly, the Celebration was an opportunity for community members to come to Gettysburg College to participate in interactive literacy games led by college volunteers and enjoy free snacks and children books.

2.3 Identifying and Recruiting Service Placements

I identified six day cares and elementary schools that were within 20 minutes walking distance from Gettysburg College. They were notified first by email, then phone-call, and lastly a personal visit to the site. The main point of contact were either the day care director or the school principal, and each were given a detail outline of the program. Upon approval, directors and principals were responsible for recruiting their staff to participate and provide volunteer opportunities.

2.4 College Volunteer Recruitment Plan

All participants were Gettysburg College students, and they were recruited through various mediums. I posted advertisements on the Student Digest; hung flyers in all academic and dorm buildings; contacted professors to inform students; and emailed presidents and vice-presidents of clubs and organizations. A Google Survey was created for students to sign-up that included name, email, program component interest, and Spanish language fluency.

3. RESULTS : IMPLEMENTATION

The program is scheduled on the week of Dr. Seuss' birthday, March 2nd, from Monday thru Friday.

3.1. Communication: Volunteer and Service Placements

Over fifty college volunteers and six service placements were recruited. The next step is maintaining clear communication and instructions for all participant. Service placements were notified one week in advance who their volunteers were and times of service. College volunteers were given two-three reminders of their placement and provided walking instructions.

4. DISCUSSION : EVALUATION

4.1. Responses from Teachers, Children, Parents, and College Students

Throughout the week, I received mostly positive feedback from all the participants. Children enjoyed interacting with college volunteers. Parents appreciated the resources and activities the program provided. College volunteers developed a strong desire to do more service. Day care directors and principals believe that this is a partnership they would like to continue.

4.2. Observation and Analysis of Program Efficiency

Throughout the week, observations were made during volunteer service, Ballroom Celebration, and panel discussion. Observations were then connected to recruitment plan, timeline, and resources. Upon analysis, the program was successful and to make it more successful, more community-school partnerships and collaboration with campus organization would be strongly encouraged.

5. CONCLUSION : SUSTAINABILITY AND MOVING FORWARD

There is a program binder for the Program Organizer that contains all of the information. Upon graduation, Kappa Delta Pi will organize RAAC and will work in collaboration with the Sigma Tau Delta – English Honor Society and Rotaract Club. Started by three students, it is now connecting numerous organizations and building up leaders in education at Gettysburg College. From this experience, I learned it takes passion, initiative and desire to serve to make a community impact.

ACKNOWLEDGMENT

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University's Collaboration with Schools on Adolescence Development among Disadvantaged Youths

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ABSTRACT

Service-learning is widely adopted in university curriculum to connect classroom with the community. Such connection implies reciprocity between service providers and the community, and allows for cultivation of social responsibility. Network for Health and Welfare Studies (Network) under the Department of Applied Social Sciences, Hong Kong Polytechnic University, was appointed as consultant to aid implementation of the first batch school-based Child Development Fund project (CDF) in three schools. CDF accumulates developmental assets for disadvantaged children and aims to alleviate intergenerational poverty in the long run. Network's participation in human resources management, program operation, and follow-up evaluation, fulfills university social responsibility by attending to the community's needs.

In terms of human resources management, Network dedicated manpower to hold induction sessions, recruit targeted participants, and screen potential mentors prior to project commencement. Close connection with the university faculty allows Master's students with Applied Psychology and Education Psychology background to participate in CDF as placement, and contribute their expertise to deliver theory-driven training for the schools. Furthermore, as consultant, Network provides supervision on implementation progress. Process data and report deadlines were closely monitored to secure service standards. In terms of operation, Network connects multi-disciplinary service providers to organize advanced educational activities beneficial to students' personal development and career and life planning. Psychology Master's students and the Quality Mentorship Network – an NGO specialized in mentor training – held workshops on multiple-intelligence, goal-setting and financial planning. In addition to CDF core activities, through Network, the Chinese University of Hong Kong and the Open University of Hong Kong offered to contribute resources to enrich learning experiences for underprivileged children. Activities held by the two universities include advanced professional GPS and Water Sampling fieldtrips. Network acting as the medium through which community resources can be accessible to CDF participants demonstrates fulfillment of social responsibility. Finally, at each quarter year throughout project implementation, Network's professional researchers analyze process data and generate statistical reports for service quality inspection. Toward the end of the project, the research team also evaluates project implementation and examines its effect on adolescence development.

Network's collaboration with the three schools on the CDF project highlighted university's roles and ability to fulfill social responsibility. Expertise and arrangement of course-relevant placement allow flexible and professional operation on community services. Nonetheless, challenges exist in introducing fresh agents to contribute original

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ideas, as well as preserving expertise to maintain and pass on good practices. Future studies can investigate sustainable large-scale service-learning and community projects in universities, and provide insights on program design and school policy to cultivate enduring reciprocity between university and the community.

Key Words: Social responsibility, service-learning, school-community partnerships, adolescence development, inter-generational poverty

School safety and children health in a post-disaster community: implications to collaborative care and service learning in school health

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1 A statement of the problem

The impact of a disaster on children's health varies. However, little is known about impact of earthquake, striking in Lushan County on April 20th 2013, on children's health and school's environment in Sichuan Province of China.

2 Aim and Objectives

The aim was to explore impact on school age children's health and school's learning environment following 2 months of the earthquake. The specific objectives were to collect children health information; and to identify school environmental health risks.

3 Methods

This was an explorative single-case study. The case was defined as the two primary schools affected by the earthquake on 20th April, 2013 and relocated in a rebuilt temporary classroom. Data were collected through structured questionnaire, field observation, and the report from July 1 to 2 2013. They were analyzed by using descriptive analysis and qualitative content analysis.

4 Results

One hundred and eight-seven school age children (male: 89 and female: 98) completed this study. It showed that around half of the subjects (89; 47.6%) were male. Majority were aged 10 or above (114; 61%). School environmental health and school buildings risks were identified in photos 1 to 9.

5 Conclusions and implications

Baseline data for children's health status was obtained and the school health risks identified. The findings suggested that university students can be benefited from creating an innovative service learning project to serve the community to reduce disaster health risks and enhance the health of children and school safety.

Key words: school safety, children health, collaborative care and service-learning

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<p>Photo 1. The facility of Gonghe (共和小学) damaged.</p>	<p>Photo 2. The Building of Ma-jun (馬俊小学) broken.</p>	<p>Photo 3. Temporary School with limited space</p>
		
<p>Photo 4. The uneven school ground made students vulnerable to be injured.</p>	<p>Photo 5. Playing around traffic roads.</p>	<p>Photo 6. Garbage scattered around the classroom.</p>
		
<p>Photo 7. Head lice due to wash hair inadequately.</p>	<p>Photo 8. Unclean skin and obvious skin lesion problems.</p>	<p>Photo 9. Directly drinking untreated (non-boiled) water.</p>

Toward a University-community-school Partnership Model – The Experience of Child Development Fund

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ABSTRACT

A tripartite university-community-school model is conceptualized and examined in the current development of the Child Development Fund Projects (CDF Projects) of the government of Hong Kong Special Administration Region. Models of university-community from the outreach-scholarship, university-school from teacher training, and community-school from health promotion were utilized to inform the building of an optimal tripartite model for the CDF Projects. The model can facilitate the development of important issues and agenda, and guide the direction of community action research and evaluation of services and practices. We proposed a university (community-school) partnership model from our working experience with both community and school sectors in the CDF Projects for the development of children from disadvantaged background.

The CDF Projects have the components of Targeted Saving, Mentorship Programme, and Personal Development Plan. Our Network, the Network for Health and Welfare Studies, was commissioned an evaluation study for the first batch of the community-based CDF Projects, an on-going action research study on a school-based CDF Project of the first batch, in collaboration with the Hong Kong Quality Mentorship Network on the development of a Quality Process Data Management system, translation of research outcomes into CDF Projects operation manual and training, and opening opportunities for student internship and training program implementation. Experiences accumulate through our long-term and deep involvement into work of the CDF Projects and they have prepared and led us into the unique role in supporting and achieving the goals of child development. Through the proposed tripartite model, partnership and collaborative research and practice work can be mapped out and university participation in the three components of the CDF Projects can be planned and expanded.

Key Words: Social responsibility, service-learning, school-community partnerships, adolescence development, inter-generational poverty

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The Collaboration of Quality Mentorship Network and University

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ABSTRACT

Quality Mentorship Network (QMN) was founded as a non-profit organization in 2010. Our aim is to promote a caring-adult culture through mentorship in Hong Kong. QMN supports the government Child Development Fund (CDF) in its mentorship programme through recruiting and networking social groups and providing training to mentors.

QMN has cooperated with the School of Professional Education and Executive Development (SPEED) of The Hong Kong Polytechnic University (PolyU) to provide quality training to the mentors who joined the CDF projects. From 2011 to 2013, QMN developed a course named “Quality Mentorship Level One: Transforming into a Quality Youth Mentor” and about 120 adults were trained to join the CDF projects. In facing the mentors to serve the mentees for three years in the CDF projects, QMN partnered with SPEED again to establish the course named “The Quality Mentorship II: Transforming into a Supportive Supervisor” in 2013 for the experienced mentors so that they can be well trained for continuing support to the mentors. Also, PolyU Network for Health and Welfare Studies (NHWS) who conducted research on the 1st batch CDF project work as our consultant, providing theories on training and solutions on operation based on their research results. In collaboration with the NHWS, a school-based CDF project operation manual, a CDF project process data manual and a booklet on mentoring culture were jointly published.

QMN also serves as a bridge for the volunteers in CDF mentorship and involves in the recruitment of mentors from different partners actively. For example, during the 1st Batch of CDF, we successfully invited university students to be mentors. Through this mentoring process, university students have gained frontline experience in serving children in need. In the academic year of 2013, QMN had a chance to provide service-learning to students in PolyU. Students would be equipped with mentoring skill and their competencies in interpersonal effectiveness and social responsibility were also improved. However, the first attempt to open this course was not successful as the number of students could not meet the minimum requirement.

Several challenges experienced in this collaboration are worth studying. First, we are aware of the difficulties in matching with the schedule of the university’s school calendar. Second, as a supporting NGO, we try to be flexible in responding to the needs of participants. This requires more frequent and closer communication with the staff in charge which would produce extra workload. Third, direct financial support from the university would be expected as additional administrative, training and supervision works are provided by the NGO.

Nevertheless, we still treasure the cooperation with universities because it is a good opportunity for us to expand our network in mentor recruitment. Furthermore, the training certificate issued by universities can give students from our course a public recognition of academic standard and quality.

Looking into the future, there are much opportunities for university to serve

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underprivileged children in Hong Kong and the potential of service-learning and partnership with universities to meet these needs is promised. QMN will be keen on exploring the chance for university students to serve the participating children. We do believe that reducing inter-generational poverty is not a dream but a social good deed if university resources can work effectively with government and local resources.

Key Words: Social responsibility, service-learning, caring-adult culture, mentoring, school-community partnership

Case Study: Essential elements of organizing a student-initiated service-learning project in developing countries

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ABSTRACT

Service-learning brings different benefits to the undergraduate students including personal development, social responsibility, and improvements in academic learning (Eyler et al., 2000). In 2013, 12 students from 3 disciplines, engineering, health sciences and hotel management, initiated a service-learning project to Cambodia for 12 days. In this case study, we review the process of team formation, preparation and implementation. Finally, we suggest 7 essential elements as a guideline for implementing a student-initiated project.

Key Words: Service-Learning, student-initiated project, services experiences

1. INTRODUCTION

The formation of the team was based on the personal experiences of serving in Cambodia. In total, the team included 12 students and 9 of them have participated in a credit-bearing service-learning subject to Cambodia. Therefore, the team already equipped with a basic understanding of the situation in Cambodia. Starting from early 2014, liaison works were started with Cambodia YMCA, sought for the advice from the academic staff and finally, submitted the proposal for applying a scholarship. In total, 4 projects in 2 aspects, rural development and health care, were implemented in Sam Rong Village from 11 June to 22 June, which is a remote area 40 minutes from Phnom Penh. The projects included setting up a quality homestay program (Ibtahim & Razzaq, 2010), conducting a census survey in a slum area, promoting foot-care and holding a life-review workshop for the elderly. In the following session, successful elements for implementing a student-initiated project are discussed.

1.1 Form a team with multi-disciplinary students

University students have little experience of working with other professionals (Peabody, Block & Jain, 2008). However, multi-disciplinary knowledge is required to resolve the needs of a community. Also, different stages of the projects required various types of skills and knowledge. For example, the homestay program required professional input from hotel management's students while the health care program required knowledge from health sciences' students. Therefore, forming a team with multi-disciplinary students can enhance the efficiency and effectiveness of the projects.

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1.2 Understand the serving community

Limited by the budget, most of the student-initiated projects cannot afford a preparation trip. Therefore, if the team members had the service experiences, connection with the local NGOs and the cultural understanding of the serving community, the projects will be better prepared and promising. Otherwise, the impacts will be limited.

1.3 Setup a channel for raising public awareness of the community in need

Social media plays an important role in promotion (Papasolomou & Melanthiou, 2012). It not only establishes a positive image within the university to bring in more support of resources and manpower, but also easier for raising public awareness and donations. For instance, our team used Facebook as the channel to engage more university students to take-part in our projects, exchanging ideas and sharing our service experiences.

1.4 Seek professional input

Due to the complexity of the service setting, the team is suggested to seek advice from the academic staff with experiences in service-learning. They not only can offer proper trainings to the team, but also can provide professional suggestions to the projects. For example, our team was received a series of training workshops of art therapy before conducting the life review workshop in Cambodia.

1.5 Start the project liaison at least 6 months before the departure time

Working with organizations in developing countries would take a longer response time, sometimes even take weeks to get a reply. It is not only due to the limitation of infrastructure, but also the working habit and cultural differences. Therefore, the liaison works need to be started at least 6 months before the actual implementation time.

1.6 Confirm the funding at least 4 months before the departure time

Financial planning is crucial, as you need to estimate the budget for each project. Also, arranging the transportation and accommodation in rural area takes longer time. From the experiences, the funding needs to be confirmed about 4 months before the project time.

1.7 Train the trainers

Although direct service provides instant feedbacks and rewards, it cannot bring long-term impacts to the community. When planning the program, sustainability should be taken into account. Therefore, providing trainings to the organization's staff or volunteers are necessary.

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2-Year Experiences of Deploying eResources in Developing Countries

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ABSTRACT

Starting from 2013, as part of three credit-bearing service-learning subjects offered by the Department of Computing, we designed and deployed three mobile-learning centers, “Lab in a Suitcase” in Cambodia and Rwanda. Each center is built on a Raspberry PI server (Upton & Halfacree, 2013) which hosts a variety of e-resources. Based on 2-year experiences of deploying e-resources, we have concluded 7 key points for materials preparations in mobile learning (m-learning) in the context of serving the underprivileged in developing countries.

Key Words: Content Development, International Service-Learning, Mobile Learning

1. INTRODUCTION

Empirical studies have reported the advantages of using mobile technology, including enhancing collaborative learning in the classroom, engaging learners in learning activities and improving the motivation in learning (Barker, Krull, & Mallinson, 2005; Yang, 2003). Especially in developing countries, m-learning enables the learning opportunities to learners without the necessary infrastructure, for example Internet or electricity, for access. “Lab in a Suitcase” contains a wireless router that creates an Intranet and provides access to the resources on the server. This allows the lab to be functional even in the absence electricity supply or Internet access. We deployed customized and free-licensed e-books, Wikipedia, blogging and video-based material to the rural primary students.

2. SEVEN KEY FACTORS FOR CONTENT PREPARATIONS

From the experience of preparing and deploying the materials, 7 key critical factors for content preparations were summarized, which would help the service team to prepare adequate materials.

2.1 Investigate past experiences

Learn from past experience. Investigate how content preparations were done in other service projects, and understand why the methods worked or failed.

2.2 Go through curriculums of the schools will be served

Prepare materials that are taught in their curriculums, to avoid omitting key concepts or preparing materials that are not suitable.

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2.3 Understand the limitations of the teaching environment

Learn the available infrastructures of the schools, to see what extra planning (e.g. electricity system, computer hardware) would be needed for the delivery of the contents. Make sure the contents can be effectively used in the environment.

2.4 Understand the technical constraints

Learn the language proficiency of the students to decide whether simple use of language should be used in the materials, or if the contents require translations. Learn the behavior of students, whether the students are more active and require more attention attractive contents, or more passive and require materials that can raise their interest.

2.5 Justify the choice of media

Learn the targeted age of your contents and justify a choice of media. Younger students may need to learn with games so they have fun while learning. Mature students may prefer textbooks, which directly put theories and ideas on texts, so they can learn more quickly.

2.6 Adjust the contents according to different habits and cultures of countries

Beware of the habits on use of notation systems (e.g. metrics, mathematics notations, currency) and apply the one that is used in the targeted country. Immerse some cultural specific elements to the resources, and make the examples closer to the lives of the locals.

2.7 Check existing materials

See if there are any copyright-free materials that can be used in the project, to reduce the workload of content preparation. For example, some of the materials were downloaded from the GCF learn free ("Free Online Learning at GCFLearnFree", n.d.) and stored in "Lab in a Suitcase".

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Direct Assessment of Student Learning Outcomes in a Co-curricular Service-learning Programme

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ABSTRACT

Service-learning (SL) is a well-known pedagogical approach for enhancing student learning. Throughout a carefully monitored service experience, students are guided to achieve the intended learning outcomes and service goals; and at the same time, to reflect actively on what they experience (Furco, 2011). Thus, this pedagogical approach has been adopted in both academic and co-curricular programmes for decades (Fitch, 2007).

However, institutional Outcomes Assessment has been traditionally emphasised on academic programmes, with little direct assessment of student development in the non-academic area, such as co-curricular programme (Feldmann, Aper & Meredith, 2011). It is important to maintain a balanced portion of direct assessments between curricular and co-curricular programmes, to make sure the results reflect authentic student learning/achievements in a university.

This study uses institutional assessment rubrics as a direct assessment tool to assess student's achievement of intended learning outcomes, such as social responsibility and problem-solving skills, in an overseas co-curricular SL programme. Students in this programme are required to write a reflective journal based on the criteria set out in the assessment rubrics, and to submit it within one month after completion of the programme. Results show that the use of such rubrics could provide students with a clear expectation of learning outcome, as well as, facilitate student's logical reflection of their learning experience in SL programme.

In this poster presentation, we will share with the audiences our experience in using a systematic direct assessment in a co-curricular SL programme to further provide authentic evidence for a more balanced institutional Outcomes Assessment.

Key Words: Co-curricular assessment, direct assessment, institutional outcomes assessment, service-learning

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International Service-Learning in Tanzania

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ABSTRACT

Previously, at the University of St. Thomas, faculty who led a study abroad course, and wanted to implement a service-learning component found their own community partner in their host country. As a new initiative, the Office of Service-Learning & Civic Engagement (OSLCE) wanted to expand the breadth of their community partnerships, especially internationally. This was in an effort to lend a hand to or help faculty who wanted to implement service-learning into their study abroad courses and to have more international community partnerships serve as alternative breaks for St. Thomas students.

Leadership in International Contexts of Tanzania is a graduate course in the International Leadership Program (ILP), under the College of Education, Leadership and Counseling at the University of St. Thomas, and is advised by Dr. Jean-Pierre Bongila. The course has been running for the past five years, and has studied in South Africa, Tanzania, and soon in Cuba. The course explores first-hand the challenges that the national, regional and local leaders of Tanzania face as they work to negotiate development in one of the poorest countries in the world. Comprised of two modules; this course begins with seminars in Minneapolis, Minnesota, then takes students to Tanzania for a two-week immersion and ends with closure presentations in Minneapolis. The first module includes students meeting with health practitioners, the Honorary Consul of Tanzania, Kjell Bergh, and guest speakers, which included the Executive Director of Pambazuka Africa, the course's community partner. The second module is offered in Tanzania and studies the four pillars of ILP, education, healthcare, governance and economy. The students exchange insights with national, regional and local leaders, and journal about their changing worldview, leadership theories, and general psychosocial and learning theories in the cross-cultural context. Through immersion in the Tanzanian culture, they examine the four pillars and meet those who are instrumental in advocating sustainable change in those arenas.

Pambazuka Africa is a non-profit organization that was founded in 2010 by the Executive Director, Rebecca Busch, in an effort to provide a future for Tanzanian children with physical and cognitive disabilities. Pambazuka is a Swahili word describing the first hint of light at sunrise, and the founders believed the organization is providing children with disabilities to see that first hint of light through the access of education. Pambazuka is one of a few institutions in Tanzania open for children with disabilities, who are normally shunned from society.

OSLCE arranged a community partner fair in the fall of 2013 to bring faculty and community partners together. The two program managers studied the International Contexts course for their master's program, and knew of Dr. Bongila's commitment to giving his students hands-on experiences of leadership challenges in the Global South. Knowing the course would continue in Tanzania during the summer of 2014, the program managers introduced Dr. Bongila and Rebecca Busch of Pambazuka Africa, in an effort to begin an international service-learning course and portray insight of an alternative education model. The office facilitated communication between the two parties, until they began making their own arrangements.

Dr. Bongila's international service-learning course was a success due to the students' first-hand experience of the condition of underdevelopment of the Tanzanian education system.

Students were required to keep a reflective journal and had daily discussions. One of his students, Cathryn Quinn, blogged for OSLCE and stated,

“Many of the children have made great strides from not being able to walk to actually taking steps on their own with minimal guidance. Others have been able to speak for the first time when it was thought they had no voice...and the list goes on. The government has not yet latched onto [Rebecca’s] idea as a model for education of children with disabilities, but at least on a small scale the conversation can get started.”

Key Words: International service-learning, Education, Disabilities

Community psychology and the spirit of service learning

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ABSTRACT

Community service learning (CSL) is getting widespread attention and someone even argue that it is an international reform movement (Butin, 2006). Combining both academic study and community based service, CSL is envisioned as a transformative pedagogical practice and philosophical orientation towards change. Its beneficial influence is not only on the population served, but also on students, teaching staffs as well as the wider community. For example, service-learning has been demonstrated to be associated with various positive effects in students, including academic performance, civic responsibility, as well as self-efficacy and moral development (Astin et al., 2000; Conway et al., 2009; Eyler et al., 2001; Singer et al., 2002). Furthermore, it may even have the potential to change the fundamental policies and practices of the academy (Butin, 2006).

Despite its potential, Battistoni (1997) reminds that whether the potential of CSL can be realized quite depends on how the programs are conducted and whether the democratic spirit is in place. According to Battistoni, three critical components of civic learning are respectively intellectual understanding, civic skills and attitudes and civic action. In other words, the successful service learning has to provide the students with situations and opportunities to think critically, to nurture civic attitudes and participation skills, and to engage in direct services. These invaluable experiences prepare the person to be a responsible citizen who can face the societal challenge and make civic decision.

By analyzing the reflection report of 36 students participating in a community psychology service learning subject in Hong Kong, this paper is to demonstrate why community psychology is an ideal partner with service learning approach, and how the subject could facilitate the students' civic learning through promoting critical thinking, nurturing civic skills and attitudes, as well as providing direct serving opportunities. Furthermore, the potential and challenge of integrating both the knowledge and practice will be discussed, particularly in reference to the recent debate of "disciplining service learning".

Key Words: Community Psychology, Service Learning, Civic Learning

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Promoting Intergenerational Solidarity through service learning: A mixed method approach

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ABSTRACT

As population aging is a worldwide trend, it can pose challenges and great social burden to the society. Many service program targeting elders, with good intention also posit the elders as passive recipients of service provided by young people and professionals. As a result, it tends to reinforce and perpetuate the image and view that elders are a burden to the society and the younger generation. Nevertheless, realizing that many elders can still actively participate in the society and models of successful aging also has emphasized sustained social involvement, the time has come to employ a more age-integrated perspective in constructing programs. Instead of using old paradigm – providing service for the isolated elders by the young people, it is more appropriate to develop programs based on an intergenerational perspective, which promote an integration and interdependence among generations and recognize the importance and benefit of multigenerational contributions to society.

This paper is to showcase a local project in Hong Kong which aims to facilitate the intergenerational (IG) exchange and solidarity through students' community service learning. The major component of this service learning project is a mentoring program in which students need to work as a team (of 2 people) and partner with an elderly volunteer to provide support, such as home visits, and provision of home care services to the more marginalized elders (total of 8 sessions / 16 hours). Furthermore, students need to work out a creative task so as to enhance the health and well-being of the service recipients in the community, in negotiation with the service organization.

Combining both survey data and qualitative analyses of students' reflection report, our results appear to support the IG service learning mitigates the tendency of young in-group identity, which will contribute towards ageism. Furthermore, the IG service learning provides the students with opportunities to know more about the aging issue in the society, the elderly and their virtue and challenge, and their own self and bias when interacting with the elderly. More importantly, the IG experience enhances a deeper understanding of intergenerational relationships. The potential and viability of such a social innovation in maintaining the mutual support structure in the society will be discussed.

Key Words: Intergenerational Solidarity, Aging, Service Learning, Mixed-method

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Service-Learning, Personal Development and Social Commitment: A Case Study of the Local Service-Learning Program at Chung Chi College, The Chinese University of Hong Kong

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ABSTRACT

This paper describes the design of a local service-learning program that we have implemented at Chung Chi College of The Chinese University of Hong Kong. Survey data collected from 129 university students participating in the program illustrate the impacts of service-learning on student outcomes. The results show that the majority of the students have benefited by developing personal autonomy through real world experiences and becoming responsible citizens and active agents of social change. Given these, we suggest that fostering appreciation of service-learning is an important and laudable goal for educators. In particular, we contend that service-learning has the capacity to renew a commitment to the common good as well as to individual advancement among students.

Key Words: Assessment of student outcomes, Credit-bearing service-learning, Direct services for the community

1. INTRODUCTION

The present paper provides a description of a local service-learning program that we implemented at Chung Chi College of The Chinese University of Hong Kong as well as recommendations for service-learning based on the students' evaluations and our experiences.

2. THE SERVICE-LEARNING PROGRAM

This service-learning program runs in the form of a 3-unit college general education course for students going into their final year and includes academic study on the campus and community service in local non-governmental organizations. Students work in small teams, with four students in one team, in projects of non-governmental organizations for about 120 hours during summer.

3. RESEARCH METHOD AND RESULT

Students were invited to complete the questionnaire anonymously at the end of the program. The results are shown in Table 1.

Table 1. Reliabilities of Measures and Descriptive Statistics of the Seven Constructs

Construct	Cronbach's Alpha	Mean	Standard Deviation	% ≥ 4
Classroom Discussion	.675	3.967	.539	65.9
Teacher Support	.595	4.039	.479	63.6
Satisfaction with Program Arrangement	NA	4.032	.521	89.1
Service Experience	.648	4.019	.411	64.3
Agency Support	.880	4.052	.691	72.1
Relationship with Service Users	.711	4.291	.558	91.5
Service-learning Outcomes	.778	4.091	.410	72.9

Notes: N=129; Students rated items measuring each construct by using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree); a score of 4 or more was considered a positive endorsement of the item.

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The majority of the student participants reported good relationship with service users (91.5%), satisfaction with program arrangement (89.1%), having enhanced personal growth and social commitment (72.9%), and being supported by the service agency in the program (72.1%). Students also reported positive experience in classroom discussion (65.9%), support from teacher (63.6%) and service experience (64.3%).

4. RECOMMENDATIONS

4.1 Project Logistics

Well-organized and relevant placements are imperative. Our College is privileged to have a Service-Learning Centre with a full-time service-learning coordinator who can help contact the agencies to discuss with them differences between volunteer service and service-learning (McCarthy, 2002), and to discuss the specific needs of the agency and activities in which students will be involved. Each agency ensures that students will experience direct interaction with service users and adequate staff supervision that will be beneficial to their learning.

During the service period, we invite feedbacks from students regularly to assess how well the placements are working. Facilitating connections between the students and the agencies is also necessary. Contributions and effort of students and agencies are recognized in College Friday Assembly that usually gathers over 1,000 students and professors. Such meetings sometimes create new service-learning possibilities for other students in subsequent academic years.

4.2 Students' Concerns

Realizing that students are busy, and many have commitments outside University, we make service-learning an elective course requiring a minimum of 120 hours of service, flexibly scheduled, across six weeks during the summer break.

Faculty must also be sensitive to students' reactions to what they may encounter. Interacting with service users from deprived living conditions offers a powerful learning opportunity, but students may also experience a painful yet real-life lesson about not being able to do more for service users. We encourage students to talk with us or with their agency supervisors about questions and concerns.

5. CONCLUSION

Emphasizing education to develop the whole person, character as well as intellect, has received increased attention (Ngai, 2009). We suggest that fostering appreciation of the call of service-learning is an important and laudable goal for educators. Although further empirical work is needed to clearly assess its benefits (Lai & Xu, 2013), we contend that service-learning has the capacity to renew a commitment to the common good as well as to individual advancement among students.

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ISL 2014 EXPERIENCE: LEARNING FROM YOLANDA (HAIYAN) - DISASTER RESPONSE, RESILIENCE AND THE ROLE OF ASIAN UNIVERSITIES

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ABSTRACT

With the frequent occurrences of disasters all over the world, international and national organizations have been challenged to respond to the crisis situation, particularly in marginalized communities. While it is incumbent for humanitarian organizations to immediately extend assistance, other institutions find themselves challenged, too, to do similar action. Among these groups are universities, which have imbedded in their vision, mission and goal their social responsibilities, particularly those that have incorporated Service-Learning in their academic programs. This paper presents experiences and insights gained by participants in the International Service-Learning (ISL) 2014 which was organized in response to Super Typhoon Haiyan which claimed the lives of about 6,300 persons and affected more than 16 million others in central Philippines in November 2013 (USAID, 2014).

It shares dimensions on learning opportunities from service beyond the usual community socio-economic thrusts and can also be useful to those who may plan service engagements involving disaster-stricken areas and cross-border SL trips in the future.

Keywords: International Service-Learning, University Disaster Response, UB & Haiyan

2. INTRODUCTION

ISL 2014 (Learning from Yoalanda (Haiyan): Disaster Response, Resilience and University Role) was planned by the United Board of Christian Higher Education in Asia (UBCHEA) about six weeks after Typhoon Haiyan, codenamed 'Yolanda' in the Philippines. UBCHEA, in embarking in its pioneering disaster response program with the participation of faculty and students, took the move to explore how academic institutions can be mobilized in disaster response and how students can learn from the experience. (Shive, 2014). IS-L was held to convene academics in the Philippines and other parts of Asia for a conference to understand how universities in disaster-prone areas can prepare better for, and respond effectively. UB, likewise, took it as an opportunity to express solidarity with its partners and friends in the Philippines and for universities to gain knowledge on how communities learn from, and prepare for, natural disasters to mitigate personal and collective loss (UBCHEA ISL Flyer, 2014).

The United Board conducted ISL in parts of the Visayan Islands where it has existing institutional partners – Central Philippine University (CPU) in Iloilo City, Panay Island and Silliman University and University of St. La Salle (USLS), both in Negros Island. Filamer Christian University and College of St. John in Roxas City in Panay,, both sister institutions of CPU and USLS were later invited to join the host universities.

3. ISL2014

ISL 2014 (Learning from Yolanda: Response, Community Resilience and the Role of Asian Universities) was held on June 29 to July 11, 2014. It had 210 participants, including 26 who attended the conference. A total of 184 students and faculty -- from 18 schools and institutions in China, Hong Kong, India, Indonesia, Macau, Myanmar and Taiwan and nine Philippine universities – engaged in community service. It had two parts – the conference and the community service. The three-day conference held in Iloilo City

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oriented participants on the the extent of the Haiyan impact and eventual relief, rehabilitation and reconstruction conducted. Civic engagement activities were also finalized in conference group discussions by S-L team assignments.

Participants later proceeded to 12 engagement sites in three provinces where they rendered various services anchored on their academic disciplines and pre-identified community needs (ISL Conference Kit, 2014). More than half lived together during the engagement while the others were on homestay arrangement. Participants also worked with local government units and national and international agencies with ongoing rehabilitation programs in the communities they served. Their seven community service included: education (public health and public school-focused programs), disaster and environment- activities, psycho-social interventions, shelter and building repairs, economic capability building, local governance exposure and socio-cultural interaction.

4. ASSESSMENT

Two post-engagement activities were held when participants re-convened prior to the closing program – the assessment by faculty members and the reflection sharing done by participants. They shared impressions comments on various concerns, from the planning to the implementation and sustainability of programs and activities. Both faculty and students' assessments reflected the Four Lenses of Service Learning (Butin, 2005). Faculty participants cited organizational strength and better application of S-L principles and cultural knowhow (Antone personal communication, July 21, 2014).

All 35 foreign students who responded to the reflection guide questions said they will participate in another ISL activity if given the opportunity. Their technical appreciation included better understanding of environment and disaster-risk and management issues, sociology, communication, entrepreneurship and public health. The cultural learning, along with their mentors, were on insights on better care and appreciation of humanity as well as discoveries in cross-cultural and human relations matters. Political insights covered understanding of local governance and development programs, reflection on people's coping mechanisms anchored on social equity and self-help while post-modern insights ranged from better appreciation of their stations in life after exposure to those with less yet have positive outlook in life to valuing spiritual matters and the realization that hope helps people toward recovery (ISL Evaluation Report Draft, 2014).

4. RECOMMENDATIONS

Among the recommendations of the author are more thorough planning and preparations of human and financial resources, equipment and program content, better recruitment procedures and health and mental preparation among participants. Also important is the selection of host families to provide convenience, hospitality and sense of family life as well as domestic learning experiences for the participants. Organizers of an activity of this international scale need thorough documentation of activities in all sites, with a more standardized reflection process useful to both researchers and implementers.

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Service Learning in Community Social Work---Take the Green Imagination Project as an Example

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Abstract

After the implementation of the Open and Revolution Policy in China, the community play an important role in people's life. Community social work started.

The Green Imagination Project includes studying community ideal and the implying the interactive experience teaching model. Young people can feel the happy of participation. The project can promote the potential of the youth especially on the self-recognition. Going out of schools and deep into communities can treat the students to concern the community development and design different projects to help the community's development. The project can lead to the youth's empowerment and the community's empowerment.

The evaluation of the Green Imagination project reveals that the applicators (students) are active and involved. The citizens support a lot. The students and the citizens have good interactivity. To reflect the whole project, the team integrates resource well. Students and the citizens insist self-decision in the project and use strength-oriented perspective.

Keywords: service learning, community social work, youth positive development

1. The Introduction of The Green Imagination

Starfish Home Social Work Office use the concept of P.A.T.H (positive youth development program) in its community social work education "The Green Imagination: youth development through community and school interactivity". It is a kind of interactive and experience education model. Students can get part in the service and feel happy of participation. It also can impulse youth's potential and to realize the goal of self-definition. In all, the program can enhance protection elements of young people. Students walk out from the school and deep into the community who learn to care about the community development through some community service programs in The Green Imagination. These programs lead to youth's potential development and the community's development.

2. The Process of The Green Imagination

After about 3 months 'preparation, Social workers in Shanghai Starfish Home Social Work Office and students in Y Street (in a district in Shanghai) has been finished 4 activities with different styles but a common aim. It lasted from 23 May to 11th June in 2014. It includes 4 stages: planning, propaganda, implementation and feedback.

3. The Evaluation of the program

The Applicators are Active and Involved and the Students and Citizens Have Good Interactivity.

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Every student has been finished 8 times' preparation and propaganda before the implement of the community activities. Students had to finish the jigsaw (a kind of picture to express their thinking and feeling of the service in community) after the service.

The social workers asked the students their feeling and the reflecting every time after the community service. Take an example, a student felt down after the service for old people lived alone. He said that he remembered his grandpa who lived alone in the country. Some students went home and asked their family to join in the environment protection activity.

The Residents Support a Lot.

The Green Imagination community social work is aiming to service the residents. The students were noticed and supported by the residents too. "The skills of flood prevention and anti-fog" started at 1:00pm when some residents were having a rest. The students knocked the door and got into their home to propaganda. Most of the residents listened to the students' suggestion conscientious.

The Social Workers Prepared Seriously and Got Excellent Experience.

A project director and 8 social workers were in charge of the Green Imagination Project. The social workers had to prepare the youth positive development courses, to discuss the situation in the last community social work and to plan for the next one. They got successful experience in dealing with tricky students after a term's service together.

4. Professional Reflecting

The Team Integrates Resource Well.

The aim of community social work development model is to lead the masses to get part in. As a project leader, the social worker has to do two things: directing the students to prepare for their community activities and integrating resource to support the students and the residents. For example, social workers help to contact the neighborhood committee to propaganda the project in the community to attract more residents.

Students and the Citizens Insisted Self-decision in the Program.

Students are interested in different issues for they live in different communities and face to different community problems. Social workers direct students to discuss the issues they want to change through their actions and lead the whole team to choose the one they concern the most. And finally they decide the theme of the community activity. The students can keep high enthusiasm and highly motivated to engage in the activities for they discuss and make decision themselves.

Using Strength-oriented Perspective.

There are a lot of challenges in the community service, just as tricky students, not all the residents accept and support the service and so on. The social workers insist that every student can get development. All the social workers have to do is to trust the students who get part in the activities and to find the solution to the problems in the project. Then, the project will get a good result.

The Project Evaluation Reveals that It Needs to Add Quantitative Evaluation.

Quantitative evaluation needs to be added. Adopting pretest and posttest with qualitative and quantitative methods can finally analysis the results properly.

Student Papers

ACTIVATING CITIZENSHIP

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ABSTRACT

Public Achievement is a program that aims to inspire, educate and activate all students' agencies to take active roles in public works. The program is a citizenship education initiative in which trained college students go into local schools to engage with youth and help them realize their potential to be agents of change in their communities. It is a model founded by the Center for Democracy and Citizenship in Augsburg College in 1990. Various college and university campuses in the United States and in other countries have replicated the model. Below is a students' reflection on her experiences working with 5th graders in Fall Creek Elementary School, Ithaca, New York.

Key Words: Public Achievement, service-learning, elementary school

“The little kids leave the cafeteria a mess! The portions are the same for kindergarteners and 5th graders. We're still hungry! Why is it like this? Didn't anybody think about *us*?” – 5th grade students at Fall Creek Elementary School

Although these may at first seem like the insignificant musings or mindless complaints of children, through my work with Public Achievement, I quickly realized they were early reflections of community issues that the 5th graders at Fall Creek Elementary School faced. Decisions about how school lunches are chosen and distributed are embedded in the social and political context of the American public school system and evoke questions about who holds power in a democratic society. These impassioned expressions became the starting point on a journey towards political empowerment.

This past year, I spent more than fifty hours in a fifth grade classroom at Fall Creek Elementary School in Ithaca, New York through a program called Public Achievement. Public Achievement is an initiative that began in Augsburg College in 1990 to combat the problem of political apathy in youth in the U.S. It was designed to encourage young people to participate in public matters and provide them with the opportunity to transcend participation and become “producers and creators of their schools and communities” (*The Center for Democracy & Citizenship: Public Achievement*). Its ultimate goal is to activate citizenship in both college students going out into communities and the young students they work with. I hope by sharing my experience as a Coach I can provide a perspective of how Americans build a democratic society and continually strive to inspire young citizens to carry on its ideals.

The methodology of Public Achievement at Cornell University derives from a first person action research approach. Drawing from the postmodern perspective of knowledge creation, Public Achievement allows college students to integrate personal reflection, theory and experience to construct their own knowledge about the world (Reason & Bradbury, 2). It draws upon themes from participatory action research, including the idea that “human persons are agents who act in the world on the basis of their own sense making” and join together for collective action (Reason & Bradbury, 2). At its core is the mission to empower youth in the U.S. to take responsibility for their experiences and the betterment of their communities. This “public work” approach to service-learning fosters growth in all participants involved in the process (Boyte, 2014).

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Although I entered the experience with the idea that I would “teach”, as my journey progressed, I realized I had so much to learn and relatively little to teach! I learned a lot about the developmental idiosyncrasies of 5th graders. I found my students to be quirky, lovable, curious, and challenging. They were very concerned with the idea of fairness and power. They were very interested in social issues and community issues affecting their lives. They were cooperative, sometimes competitive, and eager to collaborate with one another around issues of importance to them, all of which were qualities I recognized as essential for civically engaged youth.

Public Achievement instills habits and attitudes to pave the way for a flourishing democratic society in which all citizens are civically minded and publicly engaged. Faced with the task of co-creating a democratic space with young students, my team drew upon strategies for change-making and public participation for youth. We broke the task into steps, adapting a model from Design For Change called “Feel, Imagine, Do, Share” (“A Message to Teachers/Mentors”). First, we had to get to know our students’ feelings about their school and their community. What did they feel proud of? What bothered them? We found that school lunches were a huge concern for them. Next, we needed to facilitate the creation of a new vision for their community. If they could envision a new cafeteria and lunch menu, what would it look like? Next, we helped them carry out action steps they believed would lead to change. Lastly, they would share their journey with an audience.

We explored various facets of the issue with them, scaffolding their research process and process of inquiry. We helped them refine their questions and search for the knowledge they most craved. We accompanied them as they interviewed the staff in their school’s cafeteria. We supported them, encouraged them, pushed their thinking, and provided them with any resources we could.

After conducting research to construct their own understandings, our students found out their food was shipped from a local middle school and traced its shipment procedure as far back as they could find, pinpointing two local food companies. In addition to their research tracing the production and distribution of food, they also critically examined their behaviors within the cafeteria. They made concept maps to identify the root causes of the messy cafeterias. They decided that the underlying problem was a lack of respect for public spaces in the school and created a skit modeling positive cafeteria behaviors to instill respect in the younger students at their school. They organized amongst themselves and they took collective action to transform their complaints into changes in their communities.

As our students uncovered more about their experiences, they learned valuable skills. They practiced researching a topic of their own choice, coming to conclusions about what they found, and publicly sharing the process with others. We arranged a conference at Cornell University in which the students would come to campus and present their findings to interested students and faculty. The day it all came together was amazing to watch. A room full of 10 and 11-year-olds got to claim speaking time while Cornell professors sat quietly and listened to what *they* had decided was important. It was the day I was able to leave the picture as a facilitator, in hopes that the skills and tools they gained would stay with them as they transitioned to middle school. I saw pride and great energy in my students eyes, and I felt hope. I felt hopeful in a movement to inspire young civil servants to tackle important issues in their homes and communities.

According to Harry Boyte, “everyday citizens are the most important agents and architects of democratic change... when they develop the skills and confidence to be change agents” (Boyte, 2014). Through my experiences, I realized political change comes about through a collaborative and sometimes messy process in which dialogue, emotions, and ideas are shared. My hope is that my 5th graders will carry on knowing inside

themselves that they are active participants in their reality, capable of constructing their own knowledge, opinions, and plans of action to create change. At the end of the day, that is the essential goal of any civic educator and the key to a thriving democracy.

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MY SERVICE-LEARNING EXPERIENCE IN POLYU AND BEYOND

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ABSTRACT

The crucial role of service learning should be seen as a subject-led learning experience to college students. Following with ongoing self-reflection, students are able to gain a great enhancement in their social engagement, civic responsibility and cognitive skill development. The paper will discuss the difference between community service and service learning. While analyzing my previous services' outcomes, an emphasis will be placed on a shift from subject-led service learning to community-led.

Key Words: Self-reflection, civic responsibility, subject-led, community-led

1. INTRODUCTION

Service learning was deemed to be a revolutionary and challenging learning method for the students when it was first introduced and implemented as one of the credit-bearing subjects in higher education institutions. Regarding the subject content, assessment standard and teaching approach, it is not purely a classroom-learning, but it requires an integration of the academic knowledge with service delivery (Furco, 1996; Dietz, Grimm and Spring, 2008). Apart from academic application, the quality of service content is also a vital component in service learning. Under these strict standards and requirements, service learning is quite challenging for students, especially for those who have few service experience. However, through on-going self-reflection before/after the completion of service learning subject, students are able to generate more ideas about the meaningfulness of service learning, their growth in self-development and their contribution to the individuals/community served (Claus and Ogden, 2001). Involving in several service learning projects, more inspirations have been generated from the subject teachers, partners with deep reflections in how students grow and develop their civic responsibility from service learning.

2. SERVICE PROVISION

In the past three years, a series of community services at different stage of self-development and enhancement with different service targets are shown in Table 1.

Duration	Agency	Target Group
Sept 2010 till April 2013	Youth Care Organization	Elementary school children living in Sham Shui Po
Sept 2011 till Feb 2012	HKPU	Junior form three students in Kowloon Technical School
Sept 2012 till Aug 2013	HKPU	Local inhabitants in Banjaroya Village, Yogyakarta, Indonesia

Table 1: list of previous services experience

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2.1. Volunteering at Youth Care Organization

Being a voluntary English class teacher in 'Family Cares Programme', serving a group of six to ten students from primary four to primary six every Friday, doing some English teaching and managing in-class discipline were the main duties while their parents were having another programme at the same time. Provided with a ready-made English exercises from the organization, the class rundown, content and evaluation towards students' learning were not taken account of my responsibilities, which was similar to the descriptions of 'volunteerism' by Furco (1996). During nearly two-year volunteering, the total number of the students served was approximately twenty while half of them just came for one to two issues. However, statistics about the number of participants, outcomes of the service and the effectiveness of the program were not explicitly measured and documented.

2.2. First service learning project in HKPU

Service learning subject has been currently defined as a three-credit mandatory course that requires 40 hours of direct community service in The Hong Kong Polytechnic University (herewith HKPU) since 2012 (OSL, 2014). The first attempt at service learning subject- 'collaborative care in school health and safety' held by School of Nursing, HKPU was also in 2012. Curiosity and passion in serving the needy were my initial motivation for enrolling this elective subject while it was compulsory for other students. Various lectures, workshops and group discussions within one semester, students are able to address real-world problems and the needs of the service target via hand-on experience in service learning (Bruce-Davis and Chancey, 2012). After communicating with the English teacher in Kowloon Technical School, our service target, my team understood more about the main issue they were currently facing, total number of our service targets and the distribution of Male/Female, etc. Those students encountered an array of difficulties getting along with the teachers, classmates at school, for example, feeling lonely or emotionally stressed, hiding themselves, and having dispute; In the worst case, relentless school bullying, verbal abuse and cyber abuse could pose a threat and unpredictable harm to their mental/physical health. Hence, a project, entitled 'promoting the importance of interpersonal skills and cooperation', was established based on the problems mentioned above with concrete project objectives, which were to instill a positive value and attitude, and further to help them to build up a healthy thinking approach. Afterwards, through participation in a 1.5-hour interactive workshop with three group games, we aimed to encourage more cooperation among/beyond a class, even between boys and girls. The entire workshop was game-based following with a reflection session at the end of the game session, which might recall what they had learnt and also evaluate how the study could really be beneficial to them in terms of promoting

understanding and cooperation among students, building their self-confidence, self-identity, and their social network, which led to a healthy social life.

2.3. Further participation in community service in HKPU after the first SL experience

The community service project in Indonesia provided me with a valuable opportunity to make substantial contribution to the community beyond Hong Kong after doing my first service learning in HKPU. Taking a student leader role in this community service project-‘International Service Learning: Yogyakarta Kampung Field School (YKFS) V’ held by HKPU in June-July 2013, it was a great advancement towards personal growth and social attitudes via sharing my previous service experience with students and assisting subject teachers to process some administrative work. Before the arrival in Indonesia, students who enrolled this subject were required to attend a series of lectures, workshops and pre-community study. Through various learning approaches, students were able to integrate the knowledge learnt from the lecture into their service. For example, a map which showed distribution of natural resource could be used as a evidence in addressing the community needs and in delivering the service.

3. REFLECTION

Every learning process was valuable, unique and profound. Each service project provided me with an opportunity to explore myself further, to learn from others and to grow with the community. Service in Youth Care Organization was quite straight forward with a few instructions and requirements to ensure the quality and the effectiveness of the service provided. Additionally, self-reflection and evaluation report were in a spontaneous base. After a few months’ voluntary work, from my observation of students’ in-class participation, learning motivation and their feedback after-class, I discovered that the worksheet designed by the organization hardly satisfied their needs. With a wide range of their age, some children complained that the worksheets were too easy/ difficult and they lost interest in it. They hoped to have a change in the teaching methods and the teaching materials. Moreover, I reviewed my performance and commitment in this service, which was the first try in processing self-reflection notably from the service recipients’ perspective, and thus adjusted the teaching approach into more interesting and interactive which could also consider their ability and needs.

Regarding the nature of the service and the depth of self-reflections, it is clear that community service differs from service learning since the latter contains more structured and systemic with service project proposals, work plans, reflective journals and presentations, which would be counted as the main criteria of students’ assessments while examination is excluded (Dietz, Grimm and Spring, 2008). More benefits were obtained from HKPU service learning project, such as the establishment of a coherent reflection system, development of a positive learning attitude and civic responsibility

(Segrist, 2000) which was a fresh experience. However, while my satisfaction towards the course and personal development were overwhelmed and thus became the central focus in evaluation stage, it was very risky to lose the balance between students' benefits and the community's. A question suddenly appeared in my mind, 'although I did benefit a lot from this project, how about my service targets after completing my academic mission?'

Inspiring from an experienced supervisor of the Indonesia community service project, I got a wider and deeper angle of the important connection and cooperation among the students, organization, agency and the community in service learning. He expressed his concern about the imbalance of students' outcomes and the community outcomes while the impacts and benefits of the community were evaluated without a systematic and coherent manner. He alerted me to always be thoughtful whenever I am a participant or a leader in doing community service and encouraged me to think beyond a subject, but put myself into the community. It was a shift from simply subject-led to community-led throughout an on-going self-reflection process.

4. CONCLUSION

Service learning is not purely a subject for students. Conversely, it is an opportunity for students to go beyond the textbooks and the classroom and go into a community to learn and grow with the community. Through continuous instructions from supervisors and consistent reflections, it would be a lifelong learning experience.

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CONNECTING MYANMAR

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ABSTRACT

Connecting Myanmar is an organization which was started by students at the University of Hong Kong in 2011. We organize overseas volunteer projects for other students to join. This paper will introduce how we became inspired – how from being volunteers ourselves, we decided to start our own initiative to let other students volunteer – and some lessons we learnt along the way.

Key Words: Overseas, volunteering, student initiative, Myanmar

Connecting Myanmar has its seeds in MOEI, another programme at the University of Hong Kong. Started by Professor Ian Holliday from the Department of Politics and Public Administration, the MOEI programme sends students every summer to teach English at refugee camps and migrant schools at the Thai-Myanmar border. MOEI lasts for two months or longer and during that time, students become immersed in the culture and local community.

MOEI is a life-changing experience for many of the students who participate in it and this was the case for us as well. Some of us became interested in issues of development and wanted to become more engaged in the field. Some of us established close ties with the locals and wanted to improve their living conditions. Some of us felt like we had gained so much from the experience and from living there, that we wanted to do something to repay the local community. What we all had in common is that teaching in the villages, migrant schools and refugee camps where we were sent and living together with our students, who were from backgrounds radically different from ours, ended up changing our priorities, our values, and our goals in life. We saw that here, unlike in Hong Kong, we were not defined by which secondary school we had attended, our GPA, our major, or what internships or graduate jobs we had landed. Instead, everyone had a special skill that was valuable to someone else. We wanted to go beyond language teaching and contribute more of who we were.

Staying in the same place for two months also allowed us the opportunity to get to know the local community better. Apart from the schools we were teaching at, we also came into contact with other NGOs working for the Burmese migrant community at the Thai-Myanmar border. These included, for example, a vocational school providing training to young Burmese migrants for technical skills such as wiring and repairing; and a local newspaper founded by Burmese migrants. Through these contacts, we learnt more about the needs of the community and the difficulties they faced.

Thus, at the end of our MOEI experience, we went back to our university with not only the drive to do more, but also knowledge of what could be done. For us, the natural next step was to bridge the two by connecting university students with the relevant skills to the local partner that was operating in the same field. This is how, from the MOEI experience, Connecting Myanmar was born.

Having been volunteers ourselves, we were keenly aware of the dilemmas of voluntourism, perhaps especially due to conversations with friends and family who were not so inclined towards humanitarianism. For example, Burmese people are known for their hospitality, and teachers are held in high regard. As a result, while we were teachers

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for MOEI we sometimes felt our partner schools or students were going out of their way to make us comfortable. Occasionally we wondered if we were more trouble than we were worth. We had also seen or heard of other volunteers who might drop by a school, sing songs and give away gifts, and then leave after a couple days, thus leaving the students unable to focus and disrupting the local teacher's progress or plans. We were also familiar with stories of well-intentioned aid projects with unintended consequences: of overseas volunteers who went to a developing country, built a school and left, only for it later to turn out that the school was abandoned for lack of teachers and students; or of seated toilets built by volunteers which were used instead for storage because the local people did not know how to use them.

Thus, with Connecting Myanmar, we were determined to make our projects useful. We do so by communicating with a local partner and identifying their needs, and by ensuring that our volunteers have the relevant skills to contribute. With our Journalism project for example, we send journalism students from Hong Kong to Young Generation Note, the migrant newspaper based at the border. There, they run interactive workshops incorporating journalism principles and practical skills for migrant youth. After the two-month workshop, participants can join the migrant newspaper. The same skills also enable the migrant youth to tell their own stories – stories of life as members of ethnic minorities in Myanmar, of life in refugee camps, of life as unwelcomed migrants in a foreign land – all of which are severely underrepresented in mainstream media.

With the Street Law project, we similarly aimed to match a particular need with our students' skills. At the Yangon School of Political Science, an NGO based inside Myanmar, law students ran workshops to share their knowledge. This ranged from knowledge about legal systems, to human rights, civil and criminal liability, and negotiation skills. The workshops were structured around activities and all the teaching material was designed for the local context. For most participants of the workshops, it was the first opportunity they had to learn about law and how it impacted their daily life. They were enthusiastic and eager to participate in class, and their attitudes in turn made our students reflect on their own studies and future in law.

One other lesson that we learnt was the importance of time. As MOEI teachers, we were able to build up relationships with our students over time, and we saw how their attitudes towards us and towards learning changed over the duration of two months. Only with a closer relationship could we communicate better and more effectively with our students, and vice-versa. Furthermore, it was only with time that we got to know the local context better. Accordingly, Connecting Myanmar's projects last for no less than three weeks, and in the case of the Journalism project, runs for more than two months. We also aim to form stable partnerships with local NGOs, which makes it easier to evaluate our projects and improve year after year.

We have run summer volunteer projects for three years now. For many of the projects such as our Journalism or Street Law projects, quantifying the impact is nigh impossible. But as we learnt during our MOEI times, numbers are not all that matter. As reflected by our very literal name, we believe that connections have value in themselves, because everyone has something to contribute and everyone has something to learn. We are fortunate that we have been joined by the Burmese students studying in Hong Kong, whose local knowledge helped all of our endeavours tremendously. Our activities also would not have been possible without Professor Ian Holliday, the Centre of Development and Resources for Students, and the General Education Unit, all of whom gave us immense support and made it possible for us to share our stories and those of our Burmese friends. The friends, acquaintances and strangers who have helped us along the way are too numerous to name here, and we are grateful for all of them. In the end, it was always human connection which drew us back to Myanmar time and again, and continues to.

Service-Learning through Different Kinds of ICT-related Activities from a Student Perspective

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ABSTRACT

In this paper, we describe two different approaches to technology-based service-learning activities from a student perspective. The first is an instructional-based service: a programming short course for vocational school students. The second is more along the lines of what usually comes to mind when Information and Communications Technologies (ICT) and community service are put together – a technical support activity for a local Non-Government Organization (NGO). Both of the services were carried out in Rwanda, with the same NGO partner. These two services are of completely different natures, and have made different impacts to the serving students and the clients. We will discuss how the mixing of service natures serves to maximize the benefits to students and beneficiaries.

Key Words: Service-Learning, First time experience, Teaching methodology

1. INTRODUCTION

Service-learning is an experiential learning method that emphasizes balancing service and learning, such that the service provider and beneficiary are equally benefited (Furco, 2011). The learning experience comes from the services conducted, and different natures of service activities will bring different impacts to students.

Our first activity is a programming short course in the Python (Python 3.4.1 documentation, n.d.) programming language for vocational school students. There are 13 students aged around 20, with limited English and computer proficiency. They can only understand simple sentences and vocabularies. For computer literacy, they can use the mouse to navigate and the keyboard to type, but cannot make some more complex operations like copy and paste.

The other activity is to provide technical support for our NGO partner. The NGO has 10 branches across Rwanda, serving different people in different districts. We have upgraded their office software and hardware to help improve their work efficiency. Meanwhile, we have provided trainings and technical support sessions for the NGO staff.

The rest of this paper is organized as follows. Details of programming class in vocational school are discussed first and details of technical support work are presented afterward. Finally, we have shared some of our reflections and conclude this paper.

2. PYTHON CLASS FOR VOCATIONAL SCHOOL STUDENTS

This is a carry-on project from the previous year, when a preceding team set up a computer lab with 10 laptops for the school. During the process of the year, the students at the school took up the computer lab eagerly and formed a computer club on their own. Since then, the club has been organizing weekly computer courses for non-club members on basic computer literacy. The club members have also used the computers for self-learning after school.

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Encouraged by the eagerness of the students of the vocational school, we decided to take a step further. This year, we organized a 3-day programming course for 13 students from the computer club. By introducing the basic concepts of programming, we hope to improve their problem solving skills, enhance their logical thinking and ultimately, encourage them to explore more about computing and technology.

It would be impossible to introduce all the aspects of programming in such a short course. Therefore, our focus was to start the students off with a brief introduction, and provide enough resources such that they can learn on their own after we leave. Therefore, besides teaching classes, we also provided them with a printed book of Python programming and digital resources, including lecture notes and sample programs. We also demonstrated the usage of these materials to the teachers and students. We hope that after we leave, they can use these resources to learn Python on their own.

We started off with an observational evaluation of the students' knowledge of basic computer operations. We discussed with the preceding team and got some sense of the students' background. Our observations were that after one year, the students had indeed improved dramatically, and they had no real difficulties controlling the computer, including the use of mouse and keyboard. However, when it comes to some more abstract procedures like file operations, they still need clear instructions before they can carry them out. Their lack of exposure to ICT has obviously played a role. They do not understand how a computer works, and they have difficulty grasping abstract concepts, so they cannot control the computer to work for them. They will need more guidance and training to get used to the controlling of computers.

Teaching programming is a way to let the students have hands on experience on how computers can do things for human. Humans communicate and command the computer through programs. By introducing the concepts of programming, students can look into how programs are written and how does the computer works. This extends their ICT exposure from the user level to the creator level, which provides them a pathway to explore more on how computer works for human, and eventually bridges the gap between them and the computers.

Their limited understanding of computers is not our only difficulty. Language barrier has always been one of our toughest challenges when we conduct classes. The English proficiency of our students is not very poor. They can communicate with us when it comes to non-technical concepts. It is the combination of abstract new concepts and descriptions, and an unfamiliar language, which creates the confusion. To help students understand the complicated programming concepts, we have designed some metaphorical examples to relate the concepts with their daily lives. Then we pick students who understand the concept, and invite them to explain in their native language. This not just let the students to understand better, but also to introduce them to the idea of peer-learning which share the knowledge, ideas and experience between the students (Boud, 2001).

In service-learning, the learning experience of the students providing the service is as important as the impact we bring to the service recipients (Bringle & Hatcher, 2000). During the 3-day intensive course, we have connected with the local students. From the in-class and after class interactions, we have learned more about their culture, and have a clearer picture about their situations. These not just let us learn more about the country and the people, also helped us to gather useful information for improving the future projects.

We have discussed about the language problem we have faced. When it comes to communications, we often think about speaking and writing. However, given the language barrier between us and the students, it is ineffective to use verbal

communication as the medium of explanation. Not able to understand each other is frustrating, but on the other side, it can be a good learning experience. We were forced to rethink our strategy to connect with the students, and have found that using drawings and diagrams can provide good assistance while explaining complicated concepts. Using illustrations to demonstrate the concepts are better than just talking (Henderson & Wellington, 1998). This experience gives us more confidence to communicate with people of different cultures speaking different languages.

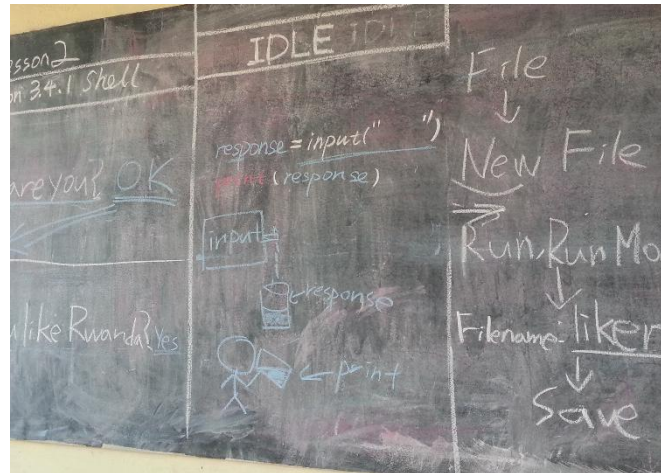


Figure 1: We have used metaphorical examples and illustrations to demonstrate the concept of “input” in python. We have linked the concept of getting input and storing the input to variables, with the example of getting water and storing it into a container. With the real-life related example, students understood the concept better and remembered to use a variable to store inputs.



Figure 2: A student explaining how the "If-else" statement works in Kinyarwanda. After the explanation, the students actively discussed about their own understandings to the concept, and finally came to an agreement. We have the teacher translated their discussion for us, and we have tested them with a related programming exercise, to make sure they are clear about the concept.

As mentioned above, language proficiency is not our only problem. The local students' inability to quickly complete basic computer operations also created hindrance to our teaching progress. With the teaching experience from previous service-learning projects, our team came up with a modified lesson plan, in which we spend an hour teaching basic computer operations like "copy and paste". We have also provide clearer instructions for file operations, like defining file names for them when they need to save the program files for compiling, rather than the usual “save the file – use whatever name you like”. Even though this is not the way that we would prefer to teach – as it is too prescriptive

and does not leave a lot of room for creative development – we feel that in this case, this was actually beneficial as it removed the uncertainty and insecurity faced by the students, and allowed them to focus on the technical concepts.

One of our big takeaways from this service is that ICT-based service-learning requires a lot of teamwork and good rapport within the team. The uncertainties and unexpected challenges created a lot of disruptions and difficulties. However, our team cooperated well on sharing our observations and experience, and eventually come up with solutions that work with the reality. We have learned to do cooperative problem solving, which will be useful for our future.

3. TECHNICAL SUPPORT WORK FOR NGO PARTNER

Providing technical support for NGOs is a service of a completely different nature. In the NGO offices, we spent most of our time working with hardware and solving IT problems for the NGO staff. Even though this does not directly aid the needy people, we believe that by providing technical support to the NGO staff, it enables them to better utilize the functions of their computer to increase their efficiency on administrative work, so they can focus their effort on helping their service recipients.

While teaching has trained our soft skills, building computer laboratories has trained our hard technical skills. We faced a wide variety of technical problems, which is a good opportunity for us to develop our technical and problem solving skills, and it also left us with a deep impression of the digital divide. For example, this year we set up an office printer. This would have been a simple, routine operation in most parts of the developed world that we are used to, but in this particular situation, the NGO received a donation of a new printer, but since they did not know how to use it, they just set it aside and continued to use the old printer. When we arrived at the office, they handed us that printer and all the hardware they do not know how to use. We had no previous experience in setting up a commercial printer and we had to figure out the procedure on our own – but even more importantly, we had to configure it in such a way such that it would be robust, even given the regular power outages that plague the city, and set it up such that the NGO staff would find it easy to use. Even though working with the technical equipment means that we would not have much chance to interact with the locals, the learning experience was no less vivid. We have many chances fixing and installing some professional office equipment, which we can rarely touch in school. Also, through providing technical support sessions, we encountered many questions that we would not have thought of. This kind of service is a very good opportunity to get a good insight into the challenges raised by the digital divide, as well as issues of usability, that we do not usually encounter in our courses or in internships back at home

Solving never-previously-seen technical problems also gave us the motivation to improve ourselves. From the service experience we have figured out our weaknesses, so we can enhance our technical skills accordingly. One of our tasks was to set up a Wi-Fi network for the NGO headquarters. During the installation, we found that we had not completely discovered the functionalities of our equipment, nor did we completely understand the theories behind the networking classes that we had learned in school. After much exploration of the hardware, we were able to successfully set up a robust network for our client. We have learned that equipping ourselves is important for providing quality service to our clients, and we will keep improving our skills to achieve this goal.

4. REFLECTION

Throughout our service, we found that there is a significant digital divide between Hong Kong and Rwanda. Just because of their limited exposure to technology, their learning capability and working efficiency are reduced. If we can ease the digital divide situation, Rwanda can improve faster. This experience has changed our visions of life.

In Hong Kong, IT professionals do not always get the respect they should have. This situation has made us feel like our professional skills are not being noticed. Companies often treat IT staff as miscellaneous and dispensable. However, the situation is totally different in developing countries. They know that IT is essential for their development and they really appreciate our efforts. From our experience in Rwanda, we realized the impact that IT can bring to people. We can see that our professional skills are well used, which is rewarding and reinforces our belief that IT is important.

Teaching the short course made us realize that somewhere in the world, there exist some people who treat our professional skills so seriously and are interested to learn more. The technical work on the other hand makes us more confident with the level of our skills. People sometimes question the quality of Hong Kong IT professionals, and sometimes even we question ourselves. However, in Rwanda, we have applied our knowledge and problem solving skills to tackle many unthinkable problems. Our confidence has been restored and we are more optimistic about the future of Hong Kong's IT industry. This experience can be more rewarding than getting a paid IT job in Hong Kong. It would be a pleasure if we can return with our more matured IT skills to provide better service to the Rwandans.

5. CONCLUSION

Different kinds of service have provided us with different experiences. Technical work lacks the social aspect, while teaching work lacks the technical aspect. The mixed natures of our service-learning have provided us a complete learning experience. It benefits us a lot, and in return will benefit our service recipients. With the integrated knowledge we have obtained, we can deliver a more complete description of the service recipients, and provide better insight of our work to the next team. With our experience, the next team will be able to provide better service to future projects.

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Nurturing civic engagement in the framework of Service Learning embedded in Whole Person Education: the practice of Service Learning in Beijing Normal University - Hong Kong Baptist University United International College

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ABSTRACT

This paper reveals the necessity and essence of Service Learning in nurturing civic engagement among university students in China through literature review. As the first full-scale cooperation implementing liberal arts education in mainland universities, BNU- HKBU United International College (UIC) plays a pioneering role in promoting Service Learning adhering to the concept “learning through experience” and “learning through practice”. The model is benefited from the holistic Whole Person Education (WPE) framework of pedagogical modules and the systematic internal design of the curriculum. Concerned with the qualitative and quantitative data on the survey of Students’ Learning Outcome, it reveals the effectiveness of Service Learning in fostering students’ community engagement and tentatively explores the sustainability of the development of Service Learning. Drawn on the liberal education model of UIC, it further concludes the key factors essential to share with universities in Mainland China in fostering active citizenship and civic engagement.

Key Words: civic engagement, Service Learning, Whole Person Education

1. INTRODUCTION

The current young generations brought up from single child families and educated in the examination-oriented pedagogical environment in China tend to be self-centered, sensitive and commonly lack of social experience (‘WPE philosophy’, 2013). According to Yang (2007), the consciousness of citizenship among the majority of university students is still weak and the current civic education is insufficient in effectively promoting students’ commitment to the public issues.

Astin and Sax (1998) found that participation in volunteer service effectively activates civic engagement and promotes citizenship. When students are motivated to contribute their insights to public discussion and their energies to addressing social problems (Flanagan & Levine, 2010), they develop an understanding of active citizenship and a commitment to serving the community (Einfeld & Collins, 2008).

Service Learning can create a bridge between community serving and academic learning. UIC promotes Whole Person Education where Service Learning is served as an integral part, which improves the quality of civic education and fosters the civic engagement among students.

2. THE PRACTICE IN UIC (‘VSDC’, 2010; ‘WPE PHILOSOPHY’, 2013; ZHANG, 2013)

Whole Person Education in UIC establishes a holistic framework for the growth of students’ physical, moral, social, intellectual, artistic and spiritual potential. It aims to equip students with critical and holistic knowledge, skills, attitudes and values that they can apply to fulfill their life goals by offering character-building learning experiences.¹

2.1 WPE Experiential Program

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The Program offers a series of compulsory credit-bearing courses (See Figure 1) interconnected with other UIC curriculums (Major Study & General Education). Service Learning plays the main role in Voluntary Service, benefited from the combined contribution of the interrelated modules on the basis of Experiential Learning.

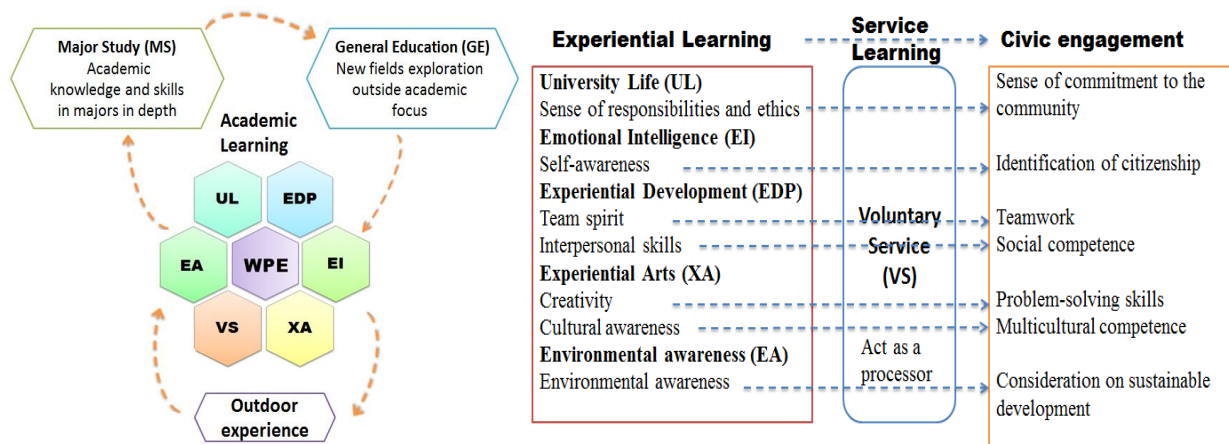


Figure 1: The relation of WPE in UIC curriculum and the role of VS in WPE

2.2 Service learning at UIC

Service Learning curriculum

Volunteer Service module combines two pedagogical methods: experiential learning and service learning. The previous one equips students with practical skills through their own experience while the latter one focuses on reflective thinking, civic responsibility and social development through community service.

Within Voluntary Service, there are four categories provided for students: Children Service, Elderly Service, Migrant Workers' Service and Open Project. Each category has different targets group and service focus. As an example of the course model of Voluntary Service, Figure 2 reveals the detailed procedures of Children Service.

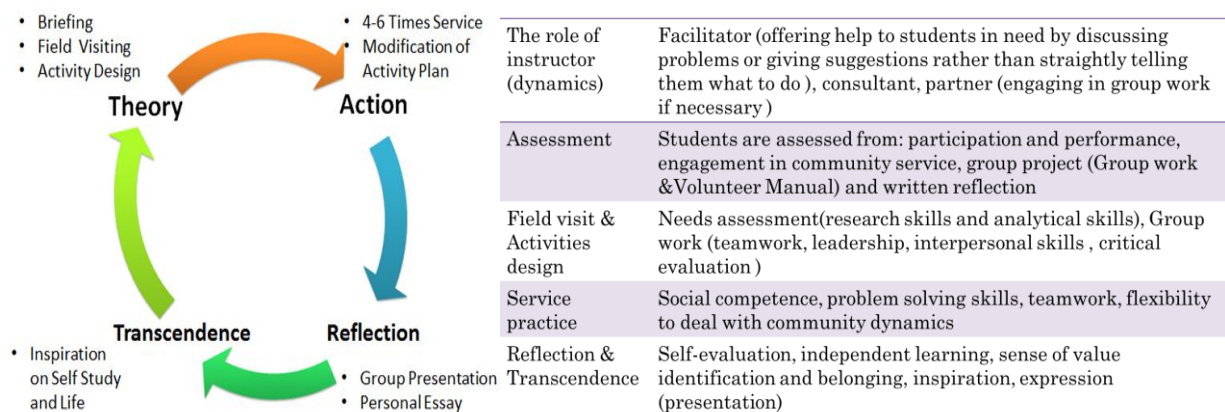


Figure 2: The course model and the key factors of Children Service (Zhang, 2013:4)

Service Learning programs

- *Social Experience Education*: A project set up to help people in need in the neighboring community. (e.g. Voluntary work in the leprosarium in Foshan)
- *Summer Voluntary Services in China and overseas (Multicultural competence)*
e.g. Autism and Emotional Intelligence in Taiwan: Students apply Emotional Intelligence knowledge to interact with autistic people (whom lack of the ability and

capability to feel, understand and act appropriately in interpersonal situation) from dependence of correlation to sincere companionship through two-to-one relationship. (Consolidating curriculum knowledge and stimulating self-reflection in community engagement)

➤ *Support student volunteer clubs (Fostering active citizenship and civic engagement)*
e.g Enactus & United Innovation Charity Club & The Soup Kitchen of UIC

2.3 Influence on students ('WPEEL-Learning Outcome Evaluation', 2013; 'WPEEL-Learning Outcome Evaluation', 2014)

Effectiveness of the WPEX (Whole Person Education Experiential Learning) modules

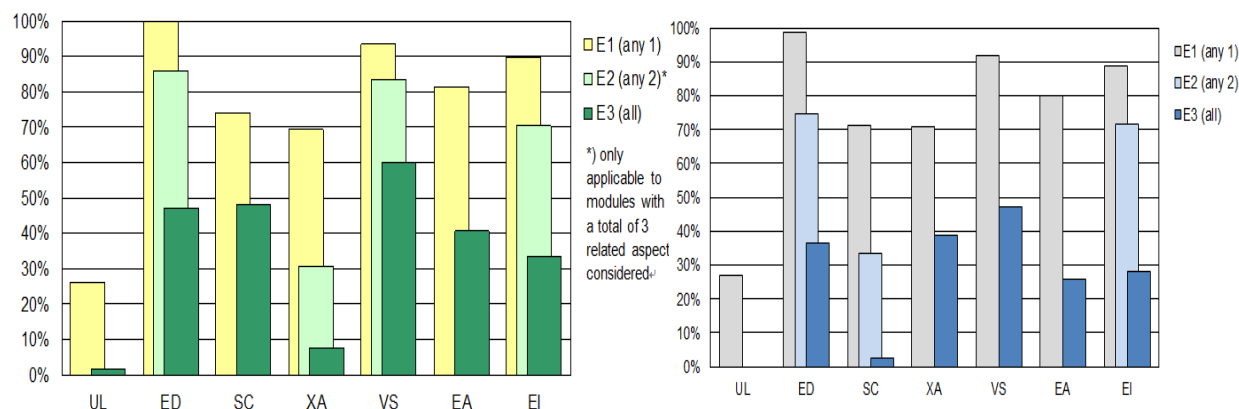


Chart 1: Effectiveness of the WPEX modules (2012-2013 & 2013-2014)²

In the left chart of 2012-2013, effectiveness E2 only applies to the modules ED, XA, VS and EI, for which 4 surveyed growth aspects were considered as directly related to the intended learning outcomes. In the right chart of 2013-2014, effectiveness E2 only applies to the modules ED, SC and EI, for which 3 surveyed growth aspects were considered as directly related to the intended learning outcomes. Effectiveness E3 of the UL module was 0%.

Following the above analysis it appears that *Voluntary Service* was most effective in helping students to achieve the expected learning outcomes. Among the interviewed students 18 of 30 (2012-2013) and 17 of 36 (2013-2014) respectively who had attended *Voluntary Service* (E3=60% and E3=47% respectively) indicated that the module had benefited their growth in all 3 related aspects: *team work*, *interpersonal skill* and *sense of responsibility and ethics* (compare Chart 1).

Sustainable influence on students

Inspired by Service Learning, UIC students have made full use of available resource and actively engage themselves in the further community service. For example, students from TESL (Teaching English as the Second Language) have set up their own project "TESL Angel". They have organized voluntary teaching program to help full-time employees from the International Office and the canteen staff to improve their English. In this way, students can fully exhibit their strengths and make contributions to the community.

²The results conveyed by WPE Learning Outcome Evaluation of the year 2012/13 and 2013/14 reveals the influences of WPE curriculum on the students' personal development throughout 4 years of undergraduate study. Their personal growth were measured by ten aspects: Team work, Physical health, Interpersonal skill, Self-awareness, Endurance, Confidence, Creativity, Sense of responsibility and ethics, Cultural awareness, Meaning of life.

A module is effective when students achieve the intended learning outcomes. This can be measured by the number of students interviewed who reported that a certain module had contributed to their personal growth in aspects that are directly related to the intended learning outcomes of this module.

As for each module 2 or 3 related growth aspects were considered, the Effectiveness ($0 \leq E \leq 1$) of a WPEX module can be determined as follows:

E1 = based on the number of students who reported that the module contributed to their growth in any 1 of the related aspects

E2 = based on the number of students who reported that the module contributed to their growth in any 2 of the related aspects (only applicable to modules with a total of 3 considered aspects)

E3 = based on the number of students who reported that the module contributed to their growth in all of the considered related aspects

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3. CONCLUSION

The development of civic engagement among universities relies on the effective civic education through the successful implementation of Service Learning. The practice in UIC provides inspiration to the further development of Service Learning in mainland.

It is necessary to combine community service with academic learning, personal development and civic responsibilities in higher education. In the mainland universities, Service Learning is mainly operated in the form of volunteering activities organized by students' associations with immature organization and insufficient resource. The majority of students possess a strong desire to integrate community service into core curriculum, nurturing civic engagement in an effective way.

Universities should design Service Learning Curriculum embedded in a holistic framework tailor-make for their own students and circumstance (See Figure 1). Embedded in the effective WPE framework, Service Learning in UIC is benefited from the integrated (shared values), diverse (8 modules) and cohesive (interconnection) pedagogical system. Nevertheless, the drawback of UIC framework is the feeble connection between subject-related knowledge and Service Learning, which probably weakens students' continuous engagement in service.

Service Learning requires effective, organized and portable internal pedagogical structure (See figure 2). The essential factors include the role of course instructor, needs assessment of the service target and the cohesive force between action and reflection etc.. Based on the practice in UIC, it is suggested that the instructors require a higher level of knowledge and expertise about historical, economic, and political systems and structures related to the serving community, leading students to make the connection from their service to larger social issues (Einfeld & Collins, 2008).

The pattern to activate civic engagement in universities should be "from micro to macro" (from students' personal growth to public engagement). Civic engagement is generally a macro social concept to most of Chinese students, ranging from political engagement to community service. The process of civic engagement among university students is to firstly stimulate their personal growth, cultivate a sense of personal empowerment and gradually foster the commitment to pursue active citizenship and community engagement.

Only when Service Learning is implemented in an effective and organized way can students' civic engagement be fully activated.

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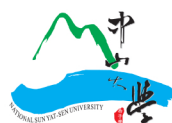
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