

## **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.

	<b>Sample Service Learning Subjects</b>
<b>GUR subjects open to all students</b>	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
<b>GUR subjects for students with certain backgrounds</b>	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
<b>Discipline-specific subjects</b>	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).**

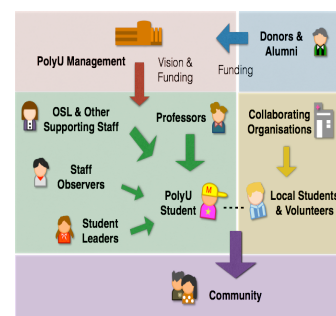
The decision to make SL credit-bearing and compulsory was made in December 2010, while the decision applies to the cohort of students entering in 2012, which is expected to graduate by 2016.

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.

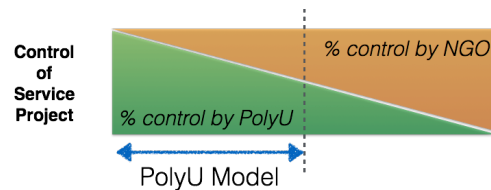


Figure 2: Collaborative relationship between university and service learning partner.

#### 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.

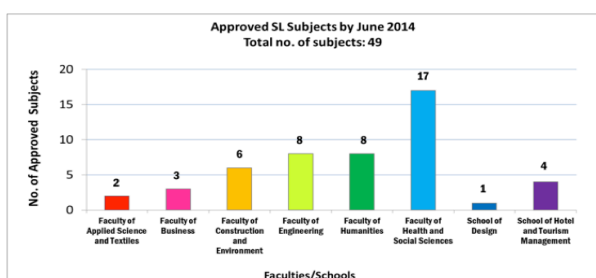


Figure 3: Number of SL subjects approved, offered by each faculty/school

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.

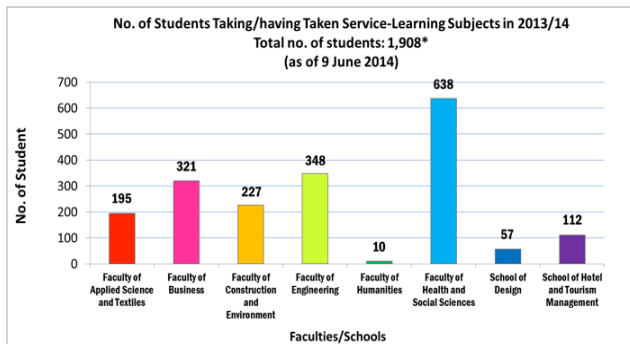


Figure 5: Number of students taking/having taken SL subjects, in each faculty/school.

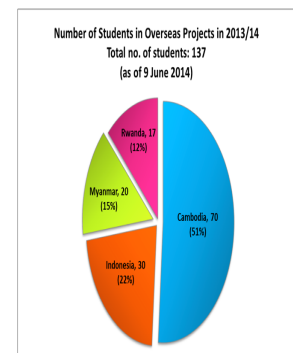
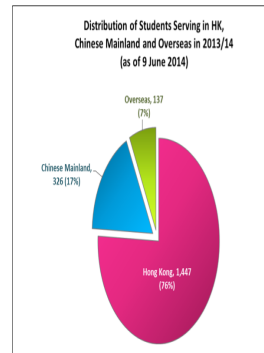


Figure 4: Distribution of students by (left) service location and (right) overseas projects.

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.

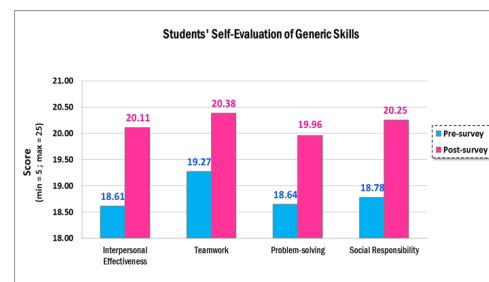


Figure 6: Students' self-evaluation of generic skills before and after taking SL.

### 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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