

Academic Excellence with Civic Responsibility –

*The First Decade of
Service-Learning at PolyU*

Stephen Chan
Grace Ngai





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The First Decade of Service-Learning at PolyU*

Stephen Chan, Grace Ngai

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About the Authors**Stephen Chan**

Dr Stephen Chan, an accomplished writer and educator, obtained his BSc and PhD in Electrical Engineering from the University of Rochester and an MSc from the University of Wisconsin-Madison. Following his studies, he embarked on a research career in Canada. In 1993, he returned to Hong Kong to join the Department of Computing at the Hong Kong Polytechnic. Here, he has dedicated himself to teaching information technology subjects and Service-Learning, areas that have been central to his academic contributions.

As the visionary founding head of the Office of Service-Learning at PolyU, a role he held until 2020, he helped to pioneer the development of over 70 Service-Learning subjects, impacting the lives of many students. The projects he has been involved in have transcended borders, empowered underserved communities, and fostered collaborations across regions.

Recognised for his passion for teaching and Service-Learning, Dr Chan has received prestigious awards from PolyU, as well as the Hong Kong University Grants Committee Teaching Award in 2016. He is a respected figure in Service-Learning research and practices, offering training and consultancy services to universities across multiple countries. He plays a crucial role on the board of the International Association for Research on Service-Learning and Community Engagement, facilitating collaboration and community building in the Asia-Pacific region.

Currently serving as Principal Research Fellow at the PolyU Service-Learning and Leadership Office, he continues to drive innovation and excellence in scholarly exploration, further shaping the landscape of Service-Learning education.

About the Authors**Grace Ngai**

Dr Grace Ngai, an award-winning educator and researcher, graduated from Brown University (Sc. B) and Johns Hopkins University (MSE, PhD). She began her journey as an academic at The Hong Kong Polytechnic University, where she led pioneering teaching initiatives in computer science education and Service-Learning. She was instrumental in creating one of the University's first Service-Learning subjects, which fused community service with technology and computing. Under her leadership, students undertook challenging and impactful projects across various regions around the globe. These projects not only benefitted the communities they served but also provided students with invaluable experiential learning experiences.

Her influence extends beyond the classroom. She initiated professional development programmes that engaged faculty members in workshops, seminars,

and research salons, focusing on enhancing teaching, assessment, and conducting scholarly work in Service-Learning, initially for staff at PolyU, but since expanding her efforts far beyond Hong Kong. The impact of her team's efforts was recognised with the granting of the Hong Kong University Grants Committee Teaching Award in 2016, while the PolyU Service-Learning programme received the prestigious "Teaching and Learning Strategy of the Year" accolade at the Times Higher Education Awards Asia 2022.

Currently serving as Head of the PolyU Service-Learning and Leadership Office, Dr Ngai inspires and empowers educators and students, orchestrating initiatives to fuse the University's education with a spirit of service and social responsibility, integrated with other strategic objectives including internationalisation.

Foreword by Jin-Guang Teng

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Jin-Guang Teng

President and Chair Professor of
Structural Engineering
of The Hong Kong Polytechnic
University
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I assumed the role of President of The Hong Kong Polytechnic University (PolyU) in 2019. Shortly after taking office, Dr Stephen Chan, one of the authors of this book and the then Head of the Office of Service-Learning, met with me and gave me a comprehensive overview of PolyU's Service-Learning initiative. I was deeply moved by his passionate advocacy and visible dedication to the programme. Since then, I have come to know Stephen, and Dr Grace Ngai, his successor as the Head of the renamed Service-Learning and Leadership Office, much better. Both of them have continued to impress me with their dedication, sincerity, and unwavering commitment to Service-Learning, a learning pedagogy that has become a flagship characteristic of our University's undergraduate curriculum.

I had the good fortune to inherit an exceptional Service-Learning programme. By the time I assumed the Presidency, Service-Learning had been in place for seven years. We had developed a thriving ecosystem of almost 70 subjects, enrolling over 4,000 students annually, and working with several hundred non-profit organisations and other partners. Today, almost all our academic departments offer Service-Learning subjects. Underpinning this ecosystem is a rigorous quality assurance system overseen by academic staff members who themselves are passionate Service-Learning advocates and gatekeepers, and a dedicated supporting office staffed by young, energetic colleagues.

Resilience and Innovation

A short time into my Presidency, the COVID-19 pandemic struck in early 2020. One might expect a learning pedagogy such as Service-Learning, which requires students and staff to directly engage with communities around the world, would be severely impacted as a result. While there was certainly an impact, the Service-Learning team demonstrated resilience and creativity by exploring alternate forms of Service-Learning. They embraced digital technologies such as virtual reality, metaverses, and tele-engineering to overcome the disruptions caused by social distancing regulations, demonstrating the innovative spirit of our University. In fact, during the pandemic when travel was restricted, our non-local programme actually expanded, with students providing online service to communities in places such as India, Rwanda, and South Africa.

Evolution of Service-Learning Subjects

Over the years, we have witnessed our Service-Learning subjects evolve and expand in remarkable ways. One subject from our English Language Centre initially began as a small project, led by one teacher, taking students to teach English in Mainland China. It has since expanded to three parallel projects and given birth to another subject focusing on using persuasive communication to advocate for non-profit organisations. Another subject, from our School of Fashion and Textiles, initially focused on using fashion design to enhance self-confidence among individuals recovering from mental illnesses. Over time, this subject has expanded to include neuro-divergent adolescents and those fighting drug addiction. The colleague leading this initiative has integrated it into her research, and her achievements have recently been recognised as “highly commended” by the Times Higher Education (Asia) awards, in the “Research Project of the Year: Arts, Humanities and Social Sciences” category. This past summer, we successfully adapted this meaningful project to its operation in Rwanda, fostering a cross-cultural, China-meets-Africa exchange through fashion co-design.

Inspiring Students to Achieve Excellence for the Betterment of Society

Service-Learning has had a transformative influence on our students, inspiring them to better themselves and to make an impact on the world, living up to our University's motto, "To learn and to apply, for the benefit of mankind". There was a student who was part of the first cohort for whom Service-Learning was a requirement. His first project in Cambodia took him well outside his comfort zone, mainly because of the vastly different living conditions he encountered. Yet, inspired by that project, he remained engaged, and proved himself to be reliable and responsible, earning the trust of colleagues who appointed him as a student leader. Today, he holds a PhD from a world-leading university and continues to be involved in our Service-Learning projects. His aspiration is to return to academia and lead the next generation of students.

Advancing Key Goals of the University

Service-Learning plays a vital role in advancing several important goals of our University, including the promotion of a strong sense of social responsibility. For the duration of our Service-Learning projects, our teachers closely supervise and guide students, ensuring that they are effectively serving the community while at the same time learning, thus making a positive impact on both others and themselves. From what I have observed, the sense of purpose of the projects, the intensive and immersive team experience throughout, the sense of achievement in overcoming challenges to deliver impactful service, and the gratitude received from the community combine to provide our students with an unforgettable and life-changing learning experience through Service-Learning.

Service-Learning also promotes internationalisation and a global perspective, by enabling our students to be exposed to different cultures, viewpoints, and ways

of life. That is why we have particularly invested in non-local Service-Learning, which has been a defining characteristic of PolyU's Service-Learning from the very beginning. In the coming years, we aim to elevate non-local Service-Learning to new heights. I have a vision that non-local learning will be part and parcel of every PolyU undergraduate student's experience, in particular that 50% of them will participate in non-local Service-Learning projects.

Achieving this ambitious goal will undoubtedly pose challenges, but I firmly believe that we are ready and well-prepared. To ensure that no student is left behind, the University is pledging to finance the first HK\$10,000 of students' travel expenses, as well as the travel expenses of the teachers who make Service-Learning possible.

A Decade of Transformation and Impact

To conclude, Service-Learning, when done properly, backed up by enthusiasm, dedication and hard work, enables institutions to strive for excellence. It not only enriches the educational experience of students, but also fosters a community of empathetic and socially conscious future leaders who are equipped to tackle global challenges.

This book tells the story of the first ten years of Service-Learning at our University, highlighting what we have accomplished through Service-Learning, and how Service-Learning can profoundly benefit wider society. Through this book, we hope to share our experiences and insights, and inspire other interested parties to join the Service-Learning community to foster a brighter and more sustainable future. †

Foreword by Andrew Furco

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Andrew Furco
Professor, Department of
Organizational Leadership, Policy, and
Development
Director, International Center for
Research on Community Engagement
University of Minnesota, United States
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When talented, visionary higher education scholars are given an opportunity to re-think the future of their university's undergraduate programmes, extraordinary things are bound to happen. Such is the case in the multi-year efforts of Dr Stephen Chan and Dr Grace Ngai, both from The Hong Kong Polytechnic University (PolyU), who were charged with implementing and institutionalising a Service-Learning requirement as a central component of PolyU's undergraduate program redesign. Their amazing decade-long journey in transforming PolyU into one of the world's leading universities for service-learning programming is wonderfully chronicled in this engaging and inspiring volume. Dr Chan and Dr Ngai provide a well-sourced, first-hand account of the challenges, triumphs, disappointments, successes, recalibrations, and accomplishments they experienced in their steadfast quest to institutionalise a high quality, campus-wide service-learning requirement. Dr Chan and Dr Ngai pull no punches, providing us with a raw, authentic look into the realities of making service-learning a central feature of a university's academic mission.

In 2010, PolyU embarked on transforming its three-year undergraduate programmes to four-year programmes, and it sought to provide its students with a shared educational experience. Dr Chan and Dr Ngai and others at the institution saw this as an opportunity to advance course-based academic service-learning — a pedagogy that could be applied to any subject while advancing the teaching of ethical behaviour and social responsibility to all students. What a grand opportunity to advance service-learning and to elevate the centrality of social responsibility at their institution! The leadership of PolyU embraced the idea. And with fervent

dedication, Dr Chan and Dr Ngai took on the responsibility of advancing the University's service-learning institutionalisation efforts.

At the time, service-learning – especially course-based service-learning – was not widely practised in Hong Kong. There had been some inaugural service-learning conferences hosted by a handful of universities in the region, most notably Lingnan University but for most of Hong Kong (and across much of Asia), service-learning was still at a nascent stage. However, building on some of its early successes with service-learning activities in Rwanda and Cambodia, PolyU approved a policy in 2010 that made service-learning compulsory for all students. Specifically, the policy required all of PolyU's 2,400 undergraduate students (and later 4,000 students) to engage in an approved service-learning course-based experience prior to graduation. Not surprisingly, as the service-learning institutionalisation effort got underway, many questions arose: How much academic credit should be given for service-learning experiences? In what ways and to what extent should service-learning experiences be integrated into the curriculum? What kinds of academic support or funding would be provided to academic units? Which courses would count for the service-learning graduation requirement? Who would keep track of students' fulfillment of the requirement?

In this inspiring book, Dr Chan and Dr Ngai provide us with a first-hand account of how they addressed these and many other questions and issues that arose as they led implementation of this new requirement. Through an engaging and personal narrative, they detail the critical incidents and turning points that facilitated the advancement of the service-learning institutionalisation process. They share how, while under enormous pressure and a short timeline to launch and operationalise the service-learning requirement, they and the members of their team worked to strategically and successfully navigate the many unexpected challenges they faced (including an institution-wide lockdown following student protests). What truly stands out in this volume is the honesty with which Dr Chan and Dr Ngai present PolyU's service-learning journey. They openly share personal accounts of the negotiating, experimenting, heavy lifting, and counter-arguing that they and others did to sustain the effort. Their stories and examples provide

readers with a refreshing, unvarnished perspective on the realities and complexity of building and advancing an institution-wide service-learning agenda.

An important and clear message from this book is that advancing the institutionalisation of service-learning does not happen automatically and that it takes time. At a minimum, it requires leadership, champions, institutional investment, risk-taking, a vision, and a long-term commitment. At PolyU, we find these characteristics on full display. After more than a decade-long effort to institutionalise service-learning at PolyU, Dr Chan and Dr Ngai proclaim, “We have come a long way since 2010, when the Senate first decided to make service-learning credit-bearing and compulsory. We are, of course, not done. Education, and specifically, service-learning, is an ongoing, continually self-improving process.” This volume reminds us that there is no final achievement point in the service-learning institutionalisation process. As institutional conditions change and as societal issues evolve, different kinds of service-learning experiences are needed. Dr Chan and Dr Ngai offer excellent examples of how they have strategically sought to adjust and modify their approach to service-learning institutionalisation as the conditions at PolyU and in the community have shifted.

This book also teaches us much about the potential and promise of achieving greater service-learning institutionalisation and institutional transformation. Today, with the global growth of service-learning, many higher education institutions across the globe can point to service-learning activities on their campuses, but few institutions have gone beyond tinkering with their program to embrace service-learning as a vehicle for institutional transformation as PolyU has done. Through its genuine commitment to and sustained investment in service-learning as part of students' core educational experience, and with the impressive institutional accomplishments and successes it has achieved to date, PolyU now serves a global service-learning exemplar.

A valuable contribution of this volume is that it further advances our understanding of the importance of cultural context in the advancement of service-learning. Especially insightful is Dr Chan and Dr Ngai's discussion of how initially,

PolyU leaned on the three decades of service-learning development and experiences in the United States to make their academic case for instituting a service-learning requirement. However, as Dr Chan and Dr Ngai further explain, service-learning's Western-based history, although useful, has had limited applicability to higher education students and institutions in Hong Kong (and even across Asia). Therefore, at PolyU, academic service-learning could not be just a replication of the approaches used in the United States or elsewhere. PolyU would have to develop its own brand of academic service-learning, which is what it did. Through this volume, we gain much understanding of what it takes to build an institution-specific brand of service-learning and the particular cultural, structural, economic, and institutional issues at PolyU that ultimately determined and shaped its particular service-learning approach and identity.

Readers may be surprised to find that PolyU's approach to advancing the institutionalisation of service-learning is quite atypical of what we tend to find at other higher education institutions. At most higher education institutions, in their initial stages of service-learning development, the focus is typically on developing and cultivating domestic service-learning opportunities. In contrast, PolyU concentrated its initial effort on advancing international service-learning experiences, which typically are more complicated and challenging to implement than domestic experiences. PolyU leveraged the successes of its early international service-learning projects in Cambodia and Rwanda as means to provide inspiring examples to deepen faculty members' interest in and understanding of the pedagogy and its potential for positive educational and societal benefits. However, these international service-learning experiences set a high bar for faculty to reach as the institution sought to establish criteria for what would count as quality academic service-learning practice and the standards that professors would have to meet for their service-learning courses to count as fulfilling the service-learning graduation requirement. With these high standards of quality to achieve, would PolyU be able to secure the requisite number of high-quality service-learning courses within three years that would ensure that all students could fulfill the requirement? Would PolyU be able to sustain a sufficiently large number of high-quality courses through the years? The stellar ways in which Dr Chan and Dr Ngai navigated these challenges

is an excellent case study in effective strategic action for balancing and meeting the needs of the faculty, the academic units, the community, the students, and the administration.

Another important contribution of this volume is that it also helps us see what is possible when there is a full-on institutional commitment to institutional reform, improvement, and transformation, and the potential and power of service-learning in realising that institutional change. At most higher education institutions, the service-learning institutionalisation process advances incrementally; that is, first identify academic service-learning exemplars on campus, then hone and codify the key elements of the practice (defining service-learning), then cultivate a critical mass of courses over time, and then establish quality standards to optimise outcomes and sustain the practice. In contrast, PolyU's service-learning institutionalisation efforts operated at full bore from day one, with simultaneous attention paid to critical mass building, quality building, and sustained institutionalisation and with the initial goal of requiring all PolyU students to complete a service-learning course. At most institutions, such an approach and agenda would spell disaster. But not at PolyU. In fact, it was this impressive, bold, comprehensive, and multifaceted approach which, perhaps unexpectedly, created a double helix effect that resulted in achieving service-learning institutionalisation and institutional transformation. Therefore, fundamentally, this book is about the potential of service-learning to serve as a powerful and effective vehicle for transforming our colleges and universities into more engaged and socially responsible institutions.

Overall, The PolyU service-learning story is one of self-determination, perseverance, adaptability, resilience, and survival, and the building and evolution a world-leading service-learning higher education institution. Through Dr Chan and Dr Ngai's excellent chronicling of the growth, the setbacks, and the ultimate successes of PolyU's service-learning institutionalisation effort, we are able to witness the reality of what it truly takes to institutionalise service-learning at a large, multi-faceted institution of higher education. PolyU's pioneering work has catalysed and brought to the Asian continent a series of regional service-learning conferences, new research studies, new frameworks for understanding service-

learning best practices, and a deeper understanding of the factors that shape service-learning practice within particular cultural and institutional contexts. The PolyU story also reveals the importance of connecting service-learning to broader institutional goals and priorities, such as by enhancing students' educational experience and instilling in them a sense of service and commitment to society. However, perhaps the most important message of PolyU's service-learning story is that the advancement and institutionalisation of service-learning takes more than institutional support, investment, and commitment. It requires hard work from a team of dedicated champions who can envision the potential of service-learning, and who have the fortitude, boldness, and resilience to navigate and overcome the many obstacles that get in the way of making service-learning a centre-piece of an institution's identity.

On a personal note, I had the honour of meeting Dr Chan and Dr Ngai for the first time in January 2012. Like all who have the privilege of meeting them, I was immediately drawn in by their warm and generous spirits, their honesty, their work ethic, their eagerness to learn from others, and their relentless pursuit of excellence; all of these characteristics come through in the narrative of their book. At the time, they were in the third year of their effort and had graciously invited me to visit PolyU to provide feedback on their service-learning program as well as to speak at their inaugural service-learning conference and to facilitate some workshops on various service-learning topics. As I learned more about the scale and scope of the overarching goal they had been charged to achieve (full, campus-wide service-learning institutionalisation within three years!), I was struck by both the boldness of the effort and the pace at which the goal was to be actualised. It was clear to me, though, that they understood they had been handed a tremendous and important leadership opportunity, not just to establish a campus-wide program, but to enact institutional transformation. Many eyes were on them. The university's administrators were eager to see results. The skeptics stood poised to identify program deficiencies. Expectations for success were high. Failure was not an option. Dr Chan and Dr Ngai were laser-focused on building not just a good program, but a great one. While others might have taken on this formidable responsibility with trepidation (I know I would have!), Dr Chan and Dr Ngai engaged in the work with

optimism, strength, deep commitment, and humility. Looking back, I believe these attributes contributed immensely to their success in achieving a truly remarkable goal. It is also why they have earned an enormous amount of respect from many of us who champion service-learning.

Without a doubt, Dr Chan's and Dr Ngai's individual and collective fortitude, care, and assiduity are at the heart of PolyU's service-learning success over the past ten years. By sharing with us this fascinating, inspiring, and uplifting volume, we experience their personal journey as they strove and still strive to do all they can to help PolyU reach its service-learning north star. Their vivid and sometimes humorous examples of the issues and challenges they faced elucidate what it really takes to advance and fully institutionalise service-learning in higher education. I hope all who read this book will be inspired as I have been by the courage and dedication that Dr Chan and Dr Ngai and the entire team at PolyU have displayed and continue to display to achieve a truly monumental institutional goal under very challenging circumstances. Thank you, Dr Chan and Dr Ngai, for the many gifts you have given to the service-learning field, through your exemplary work at PolyU and across the globe, and now through this important, informative, and impactful volume. †

Acknowledgements and Dedication

The genesis of this book emerged from various questions we were frequently asked, such as: “Why did you start these Service-Learning projects?” “Why did you go to Cambodia (or Rwanda)?” “How did you set up these projects?” “How did you develop these Service-Learning subjects?” “How did you secure management’s support?” “How do you fund international student projects?” “How do you institutionalise service-learning?” “How do you pick your partners?” Each time, due to time and other constraints, we could only provide partial, fragmented answers. We felt hard-pressed to deliver a satisfactorily complete response. We felt compelled to write this book thanks to those questions.

When we first considered documenting our efforts, we were grateful to Dr K P Kwan for suggesting we write it as a narrative of our personal experiences. We appreciate Professor Jonathan Webster for his initial editing, streamlining the writing, removing duplications, and restructuring for easier reading. Thanks to Dr Bruce Morrison for final editing, clarifying ambiguities, and refining the language. We are grateful to Angelie Man for designing the beautiful front and back covers and creating illustrations that bring critical moments to life. Thanks to Christy Lo for developing infographics and diagrams that help us visualise complex relationships throughout the narrative. Above all, we have to thank Agnes Kwan for orchestrating the enormous tasks of editing, formatting, paper selection, diagram creation, photo selection, and educating us on the complexities of book production. Creating this book was truly a gargantuan project, and we could hardly have asked for a more competent, more meticulous, and more sympathetic project manager!

Of course, we must acknowledge the many hundreds of teachers, support staff, and administrative staff who constitute the service-learning community at PolyU, along with our external collaborators across numerous countries. Especial thanks must go to the colleagues at the Service-Learning and Leadership Office, and its predecessor, the Office of Service-Learning. Several dozen individuals are named in the book to give a human face to the narrative. We apologise for not being able to name the vast majority due to space constraints. However, they are the true heroes of this narrative, without whom the Service-Learning programme at PolyU and this book would not exist.

Dedication

To our cherished families,
your love and encouragement have fueled our passion and vision.
With every step of our journey,
as we endeavor to serve and teach with humility, love, and compassion,
your steadfast support has been our anchor.
Thank you for being our greatest cheerleaders,
our safe havens, and our enduring source of strength.
This is for you, with all our love. †



Chapter 1

Introduction

This is the story of the development of an academic Service-Learning programme at The Hong Kong Polytechnic University (PolyU). It covers roughly the 12-year period from its inception in 2010 to 2022, on the eve of the 85th anniversary of the founding of the University. The story is told from the personal perspective of two of the key persons involved in the development of the programme. It traces the germination of an idea through to its development into a key element of the University's campus culture, a distinctive characteristic of education at PolyU of which, we feel, we can all be very proud.

The story began when a window of opportunity presented itself for a fundamental rethink of undergraduate education in Hong Kong, prompted by the Hong Kong Government's decision to change the previously three-year undergraduate curriculum into a four-year course of study, opening up the opportunity to include one-year's worth of new courses ("subjects" in PolyU terminology) into undergraduate programmes. At PolyU, the decision was made to strengthen the University's general education provision. Service-Learning, as presently practised at PolyU, started as a vision to create a distinctive general education component shared by all undergraduate programmes, from engineering to applied science, social science, health science, business, humanities, design, and hotel and tourism. Our aim was to fill a perceived gap in the undergraduate curriculum, with the teaching of ethical behaviour and social responsibility being largely missing from undergraduate programmes at the time. Academic Service-Learning in the form of credit-bearing subjects was proposed as the means to fill this gap.

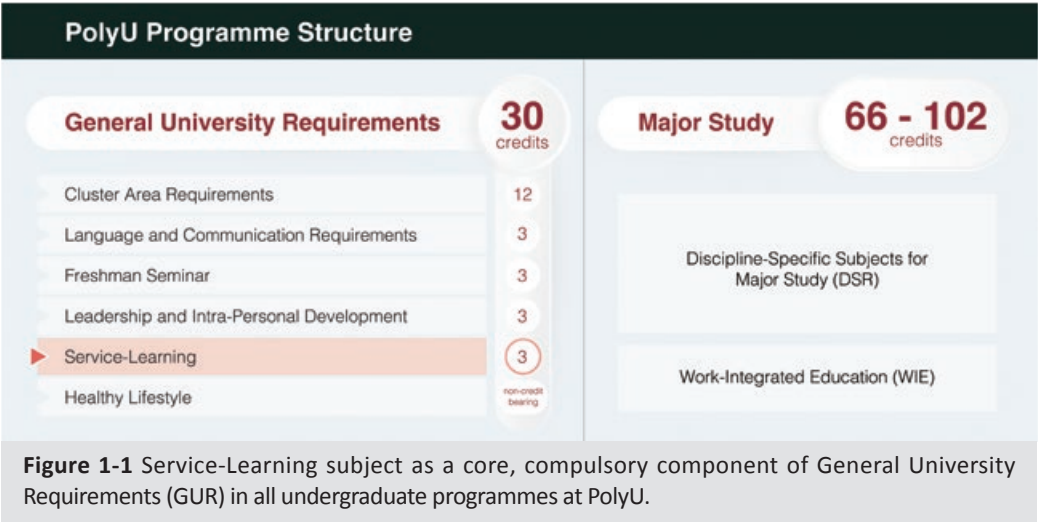
The concept of academic Service-Learning is not something new. It has been practised for a number of years in the USA and many other countries, with good results. Its pedigree was one of the main reasons why it was considered at PolyU in the first place. Community service, in the form of voluntary student participation in projects largely initiated by academic staff, had been practised at the University for many years and had been systemised under the banner of the "Community Service-Learning Programme (CSLP)". The Programme, like many other voluntary community service programmes, included ample opportunities for students to serve the community, in Hong Kong, Mainland China and elsewhere, but it lacked academic content and rigour. Little or no assessment, reflection, and no academic credits was involved.

Professor Walter Yuen, then Vice President for Academic Development, assembled a task force in early 2010 to study how academic Service-Learning could be integrated into the new undergraduate programmes. The work had to be completed quickly because the new programmes were due to be launched in 2012. Our survey of relevant programmes at other leading universities revealed a wealth of successful experience, much of which we felt could be adopted or adapted for our use. We also conducted honest introspection of our own experience with the existing community service projects, some of which were quite rigorous in terms of impact on the community and the amount of effort put in by the students and teachers, but which lacked an academic element and remained non-credit-earning. The working group became convinced of the suitability and feasibility of academic Service-Learning, and came up with a set of core concepts, balancing academic learning with community service.

The decision by the task force to introduce credit-bearing Service-Learning subjects into the core general education curriculum – eventually called General University Requirements (GUR) – was perhaps surprisingly made with little controversy. The objection that rewarding students' efforts in community service, which is commonly associated with voluntary service and performed with no benefit to the giver, with academic credit warps the student's motivation



was countered with the principle that academic learning should be fairly recognised. The proposal to make Service-Learning compulsory was, however, controversial. Among the objections was the fact that some leading universities did not require it. One argument for keeping community service voluntary was that it should be unselfishly motivated and not mandatory. The argument that eventually won the day was that if Service-Learning is such a good thing, not only for the community, but also for the students, it was precisely those students who were reluctant who had most to learn from the experience. Subsequently, when the proposal was tabled at the University Senate, the fact that most of the arguments for and against had already been thoroughly discussed within the task force as well as among relevant stakeholders around campus prepared us for its intense debate and final passage.



Approval at Senate was just the beginning. There were numerous tough challenges on the way to achieving the first concrete milestone: to develop a set of Service-Learning subjects that provided a sufficient number of places for all PolyU undergraduate students. Initially the total number of students who were expected

to take Service-Learning subjects in each academic year was estimated to be 2,400 – the number of students anticipated to enrol in a full-time undergraduate programme. However, adding advanced standing students, who enrol in only the final two years of the undergraduate programme, increased the total to nearly 4,000. To cater for such large numbers, we could not rely exclusively on the more traditional mode of offering Service-Learning subjects popular in North American universities - small classes of 20 students, or even fewer. It became apparent that we needed a new mode of teaching Service-Learning – Service-Learning as mass education. Our version of Service-Learning would need to work successfully with a much larger class size, while still achieving significant learning outcomes.

As noted above, whereas most Service-Learning programmes are voluntary, what makes our version of Service-Learning even more challenging is that it is mandatory for all students. Instead of “preaching to the choir”, we anticipated some student reluctance, if not downright hostility, to the Service-Learning requirement. The challenge we faced was providing a sufficiently positive learning experience which would convince even the most reluctant participants that Service-Learning was worth their while.

What we were planning to do did not align with what many understand as “Service-Learning”, including some within our own University’s administration. Many perceive Service-Learning as students applying learning from their discipline of study (i.e. their major) to serve community needs. Indeed, discipline-specific Service-Learning is practised in many universities, where students take a Service-Learning subject offered by their own academic department (e.g., students majoring in occupational therapy consulting with community centres on installing rehabilitation equipment). However, our vision of Service-Learning embraces a broader, more general, education, where the primary focus is on the understanding of community needs, and the developing of students’ sense of social responsibility. Students are encouraged to take a Service-Learning subject offered by an academic department other than their own, e.g., a student majoring in nursing taking a Service-Learning subject offered by School of Hotel and Tourism Management.



Initially, colleagues from the hard sciences and engineering posed the greatest challenge. They tended to be sceptical of Service-Learning but eventually came on board with enthusiasm and professionalism. After all, engineering was originally motivated by the application of science to solving real-world problems. Hence, it is natural that the hard sciences and engineering should be able to provide effective and powerful solutions to such problems faced by the disadvantaged: energy for people in energy poverty, science education for the under-resourced, and better living environments for the poor.

One of the most powerful features of Service-Learning is bringing students out of their comfort zones, and exposing them to challenges, be they economic, cultural, or physical. Thus, it made sense to take Service-Learning offshore, to a foreign location, where multi-pronged cross-cultural challenges naturally arose. International Service-Learning has rapidly developed into a hallmark of Service-Learning at PolyU. The wide range of challenges it presents readily stimulate innovative pedagogies and experimentation. The very stark and raw environments present opportunities for the professional disciplines to showcase their value in contributing to society. Additionally, complex interactions with diverse organisations, universities and governments develop into fruitful collaborations.

Through the years, the authors of this book have been and continue to be involved in all aspects of the University's Service-Learning programme, continually pushing the envelope of what Service-Learning can achieve for our students. We develop Service-Learning subjects, carry out projects in Hong Kong, Mainland China and many foreign countries, vet subject proposals, develop relevant guidelines and procedures, assist teachers in developing proposals and projects, connect teachers with community partners, train teachers to teach Service-Learning subjects, build collaborations with foreign universities and organisations, and conduct research on Service-Learning. This book tells the story of Service-Learning at PolyU, mainly through our first-hand involvement with the Service-Learning enterprise as practised at PolyU.

In 2016, the first batch of four-year undergraduates (who entered PolyU in 2012) graduated. By then we had developed a full range of subjects, offering

sufficient places for all undergraduates to take their required Service-Learning subject. Many, including those in senior management, considered the task of building the Service-Learning programme to then be largely finished. What was to follow was for the academic departments to continue to run those Service-Learning subjects as part of their normal operations. Soon, however, it became apparent that the development of the initial version of the programme was only the first milestone. By that time, we had a functioning programme for all students to take one Service-Learning subject. It was a significant achievement, having started roughly six years earlier from nothing.

However, it was still a relatively young and immature programme. We were far from having fully exploited the powerful potential of this new pedagogy, having largely adopted practices developed elsewhere. We were just beginning to apply the experience we had gained into creating our own version of Service-Learning to best suit our own particular context. We were beginning to embed Service-Learning into the culture of PolyU, applying Service-Learning to achieve other important objectives such as leadership education, internationalisation, cross-institutional collaboration, and online teaching. In turn, we have contributed to regional and global communities through research, collaborations, exchange, and teacher education. We were, in a way, just beginning Service-Learning 2.0 at PolyU.

This book tells the story from our perspective as protagonists. Dr Stephen Chan is the coordinator of the original task force and subsequently the founding head of the Office of Service-Learning (OSL) – essentially the core operational arm of Service-Learning. Dr Grace Ngai is the founding chair of the subcommittee on Service-Learning subjects – the gate keeper on quality control, and the current head of the Service-Learning and Leadership Office (SLLO) – the successor to OSL. Together we have taught many subjects, created many projects, collaborated with many teachers inside and outside PolyU, offered numerous teacher education workshops and subjects, and conducted much of the related research.

We are not only setting down our narrative; the Service-Learning story at PolyU would not be complete without the many related stories as experienced by our collaborators. Together, these stories tell the bigger story of Service-Learning



at PolyU. We try to weave together and narrate all the main threads of the overall PolyU Service-Learning story. Perhaps inevitably, the story is most detailed among the threads of which we have first-hand knowledge, or at least access to abundant second-hand knowledge.

The story is generally told as it has unfolded, in chronological order. Because it takes place in the context of a university, it ebbs and flows with the academic calendar. One chapter covers roughly one year's narration, highlighting a theme which particularly stands out for that year. To make each of the smaller stories reasonably complete, the narration not only reaches back in time but also stretches into the future. Some major themes, such as internationalisation, and research, are intertwined with others, so, as perhaps it should be, the story is not strictly chronological.

We wrote this book as a narrative mainly because we wish to focus more on the human aspects, rather than the systemic aspects of Service-Learning. As much as possible, we describe the context in which the stories take place, the challenges faced, the desires and the responses of those involved. Conversations around Service-Learning have often been related to the concepts, objectives, the social issues to be addressed, the design of the programme, the obstacles to overcome, the problems faced, and the solutions. Sometimes lost in the conversation are the actors and their hopes, their vision, their challenges. This book tells the story from the perspective of the human actors in the process.

The other reason has to do with our understanding of education in general, and Service-Learning in particular, as being fundamentally non-deterministic in nature. We see much benefit in applying systematic engineering methods in Service-Learning, as evidenced in many places in this book. Yet we recognise that engineering methods have their limitations when applied to human-centric domains such as Service-Learning. We wish we could claim that we had envisioned and planned the developments described in this book when we started out in 2010, but that is not the case. Certainly, we began with a vision, and a reasonably good understanding of the underlying principles, and knowledge of some good practices.

Otherwise, we could not have developed the skeleton of a Service-Learning programme that produced the first cohort of students taking a Service-Learning subject; but our initial envisioning did not go much beyond that. Students in Hong Kong are not the same as students in the USA, which has produced most of the Service-Learning literature and experience. The organisational culture in PolyU is different from that in other universities. As with all communities, the community in Hong Kong is unique. Even if we had a good understanding of all these factors and designed the perfect programme in 2010, things change, students change, academic and non-academic staff change, the University changes, Hong Kong changes, the world changes. We did start with a plan, but the plan has evolved as we learn, and mature. When we reached a certain stage where our existing plans were sufficiently realised, we devised new plans. Besides, who could have predicted that there would be a world-wide pandemic that would last for years, putting everything on hold, including Service-Learning? However, with challenge comes opportunity for dealing with almost any kind of change without sacrificing cherished principles, persevering with the original vision. Herein lies our story.

This book is not written as a guide for implementation, although the many cases narrated in the story may serve as a useful reference for that purpose. Many such cases are discussed in some detail, with the background, challenges, major decisions taken, their rationales and results explained. Hence, they may usefully serve persons and organisations faced with similar challenges, contemplating similar actions, or attempting to achieve similar results.

The story of Service-Learning started at PolyU with an understanding of Service-Learning as a pedagogy that integrates community service with academic learning to achieve civic learning outcomes – to nurture our students as engaged citizens. The extensive experience narrated in this book has made us realise that Service-Learning can be much more. It is possible, and may be fruitful, to reframe Service-Learning as a platform for achieving more than just a civic education. If you wish, you can skip to the end of this book to see our views on how Service-Learning can be reframed. However, the reader will miss much of the joy of discovery – how our experience has taught us of the possibility of reframing. Without reading about

that experience, it may also make the reframing seem much less convincing. We hope you will enjoy the journey as you read on.

Service-Learning is much more than a pedagogy and a programme. Education is pursued by people, who have their own specific beliefs, backgrounds, expertise, and characters, who ultimately determine the way the pedagogy is applied and a programme developed. We have included in this book ultra-short biographies of some of the key people involved in our story, from both inside and outside PolyU, particularly in the early phases of the story. These biographies aim to provide a sense of who they are, the diversity of their background and the range of the roles that they played in the development. The biographies are not intended to be comprehensive, but we do hope that they help provide human faces for the story. We apologise to all those whom we have inadvertently left out.

Where individuals and offices appear in the story, we focus on their roles in the story at the time. This means that some of the information, e.g., posts, titles, names of offices, etc may have changed. Some may have changed posts, retired, moved away or otherwise moved on since making their contribution to the Service-Learning@PolyU programme. †

Chapter 2

Genesis

The academic Service-Learning programme as we know it today at PolyU began back in 2010 with the confluence of several initially unrelated developments. At the time, a major change in the higher education system in Hong Kong mandated by the Government was underway, providing an opportunity and the curriculum space to create a core component shared by all undergraduate programmes at the University. In general, if a new subject is to be included in an undergraduate programme, another subject must be removed, to make room for the new subject. In an existing programme that is hard to do. However, when the undergraduate curriculum in Hong Kong changed from three to four years, that presented an opportunity for us to add Service-Learning. At the time, a new Vice President of Academic Development had just arrived at PolyU. He identified a number of issues with the intended design of the new undergraduate programmes and was determined to address them. He was from North America and had a good understanding of Service-Learning as practiced successfully there. By then, a small but increasingly active community had also been growing within the University, intent on using community service as a tool for student development. An even smaller number of people within this small community had been pushing for a role for Service-Learning in the undergraduate curriculum. These factors came together at just the right time.

Each of these developments was critical for Service-Learning to be introduced at PolyU but the timing was also important. It has been said that if these developments had taken place but not at the same time, Service-Learning as we know it now would not have happened. No one would have thought it possible to create a Service-Learning programme that was mandatory for all undergraduates. If someone had been brave enough to propose it, it is unlikely that it would have

been approved. Furthermore, even if the University had reacted favorably towards the idea, there would not have been a critical mass of people with the necessary expertise to turn that idea into reality.

2.1 Genesis

In 2010, the new Vice-President for Academic Development, VP(AD), Professor Walter Yuen, arrived in Hong Kong after his tenure at the University of California at Santa Barbara in the USA. He inherited the task of preparing for a major transition to take place in 2012 – the change across Hong Kong of all undergraduate programmes from three to four years. This was achieved by cutting the last year (Form 7, or Upper Six) from the secondary school curriculum. Prior to 2012, a typical pupil entered year 1 of primary school at six years of age. Six years later, aged 12, the pupil entered form 1 of secondary school and, seven years later, at the age of 19, then entered year 1 of university, where they would study for three years, graduating at 22 years of age. The reform essentially involved cutting one year from secondary school, and adding one year to university, whereby after six years of secondary school, at 18 years of age, the student enters year 1 of university to study for four years, graduating at the age of 22. The Hong Kong Government wished universities to use that extra year in the curriculum to strengthen the general education element of their undergraduate programmes. The question facing universities was: How?

By 2010, the preparation for the transition had been underway for several years. By early 2010, PolyU had already designed a system that was informally referred to by some as the “cafeteria approach”. Basically, students would be offered several options, in the form of a number of subjects across a variety of areas, and they would have the freedom to choose which subjects they wished to study. The new VP(AD), however, suggested incorporating some core subjects to give the general education programme a more distinctive character and focus.

VP(AD) started a dialogue with PolyU academics with relevant expertise, along with overseas experts on general education. After much soul searching, focus was narrowed down to two “new” areas: leadership studies and Service-Learning—the former for personal development and the latter for students’ social and civic development. He convened a crucial brainstorming session on the possibility of incorporating Service-Learning into the academic programme in July 2010, with participation from the Dean of Students, Director of Student Affairs, Director of the General Education Centre, and several others with relevant expertise and experience of working with students on various student development projects and activities, such as Professor Daniel Shek, a well-recognised expert in youth development, and Dr Kam-por Kwan, an expert on education development.

By 2020, PolyU had already had many years of experience in organising community service projects as non-credit bearing extra-curricular activities, mainly coordinated by the Student Affairs Office (SAO). For several years, there had been a Community Service-Learning Programme (CSLP) which encouraged development of student projects, often advised by academics voluntarily, which attracted hundreds of participants annually. Each year, awards were given to the best projects. There were even some intensive projects which demanded student effort on a par with regular three-credit academic subjects. Although those at the brainstorming session felt positively towards introducing a new Service-Learning initiative, there were some concerns, including in regard to the funding needed to support Service-Learning, the lack of teachers qualified to teach it and whether it should be compulsory. After much discussion, the consensus was that Service-Learning should be a stand-alone credit-bearing subject, and compulsory for all undergraduate students. The first step would be to define the vision, objectives, key elements and intended learning outcomes, together with a suitable quality assurance mechanism.

That same summer, a team of three academics (Dr Grace Ngai, Dr Stephen Chan and Dr Vincent Ng) from the Department of Computing took a group of approximately 25 students to Cambodia to carry out an ambitious community service project in and around the capital, Phnom Penh. Small teams of about four students each helped out at community centres for youths in slums run by

a non-governmental organisation (NGO) set up by an academic originally with a university in the USA. The PolyU teams set up computer networks and conducted workshops on information technology, focusing on storytelling enhanced by computer technology. One team spent two days running workshops at a primary school for children living in the slums next to the city's infamous rubbish dump, where many of them scavenged for reusables such as plastics, metals and glass, for recycling, alongside their parents. Another team ran workshops at an orphanage outside the city, where they taught the children how to use a camera and tell stories with their own photographs. Yet another team worked at a shelter for girls rescued from sex trafficking, to improve their computer facilities. When subsequently, two of our students fell sick after a six-hour long bus journey coming back to Phnom Penh from Siem Reap, our colleagues from one of the community partner organisations directed us to an excellently-run clinic where our students were well taken care of by local Cambodian doctors. We ended up becoming close friends with our community partners and collaborated with them on many follow-up projects. To wrap up the experience, we took our students on a day-trip to the world-famous, 1,000-year-old ruins of Angkor Wat, both as a reward for the hard work they had put in and as cultural education providing a part of the country's rich historical context to present-day Cambodia. This ambitious and ultimately successful project in Cambodia opened our eyes to what was possible with properly-motivated and suitably-trained students, accompanied by passionate academic colleagues with the appropriate expertise for offering guidance and supervision. We also recognized the enormous importance of good relations with responsible partners, and undertaking projects with significant social impact. This experience gave us the much-needed confidence to take on the challenge of making Service-Learning a core academic component of general education at PolyU.

The CSLP team that coordinated the Cambodian project, and other similar activities, gave VP(AD) the confidence that Service-Learning could successfully be implemented as a core component of our general education. A task force was subsequently formed to take the planning forward. The Task Force on Service-Learning comprised VP(AD), representatives from each of the then six faculties and two schools, the Education Development Centre, the Student Union, and the

Director of Student Affairs, with Ms Jeice Cheung from SAO as Secretary. VP(AD) asked Dr Stephen Chan, one of the leaders of the Cambodia summer venture, to take the initiative in moving things forward. The Task Force was directed by VP(AD) to propose the:

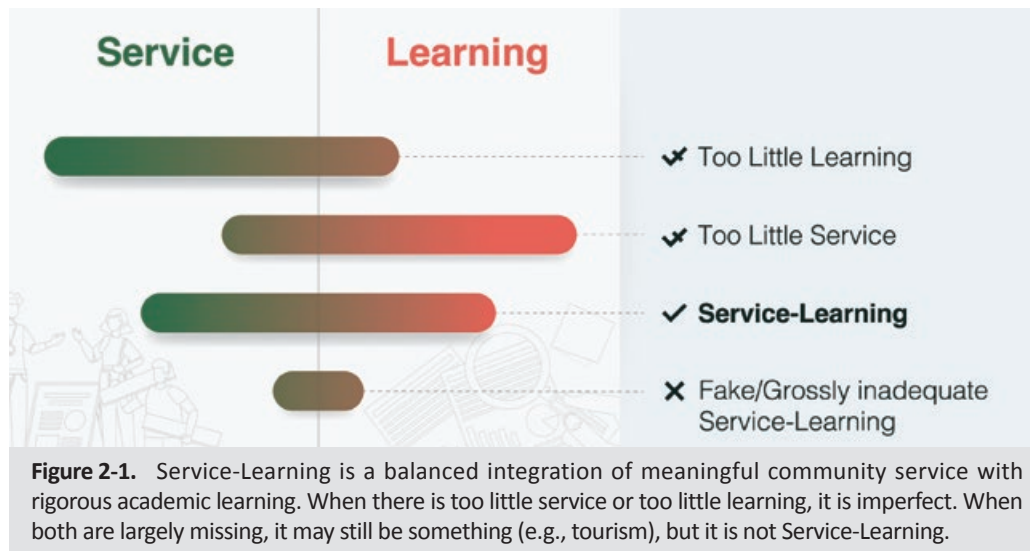
- definition and scope of Service-Learning;
- mechanism of subject approval and expected deliverables; and
- supporting administrative structure necessary to support its implementation.

The proposal would then be discussed at the upcoming Senate meeting in December 2010.

While the proposal was being drafted, it was also decided to pilot run some Service-Learning subjects before formally launching the programme with the first cohort of four-year undergraduate students entering PolyU in 2012. The pilot subjects were to be offered as elective subjects for the then current three-year undergraduate programmes. One of the first pilot subjects was offered by the Department of Computing, based on their experience running technology-based community service projects in Hong Kong, Mainland China and Cambodia. The pilot subjects were offered in summer 2011.

A consensus was gradually building. The Task Force produced a proposal which, after several iterations and with key direction from VP(AD), was finalised just in time for the Senate meeting in early December. It was proposed that all undergraduates at PolyU would be required to take at least one three-credit subject in Service-Learning (students usually take an average of 30 credits each year), through which students would be required to:

- participate in substantial community service or civic engagement activities (40 hours) that would benefit the service users or the community in a meaningful way;
- apply knowledge and skills acquired from their major or other learning experiences at the University to the community service activities; and
- reflect on their Service-Learning experience to link theory with practice, and to develop an enhanced sense of ethical, social and national responsibility.



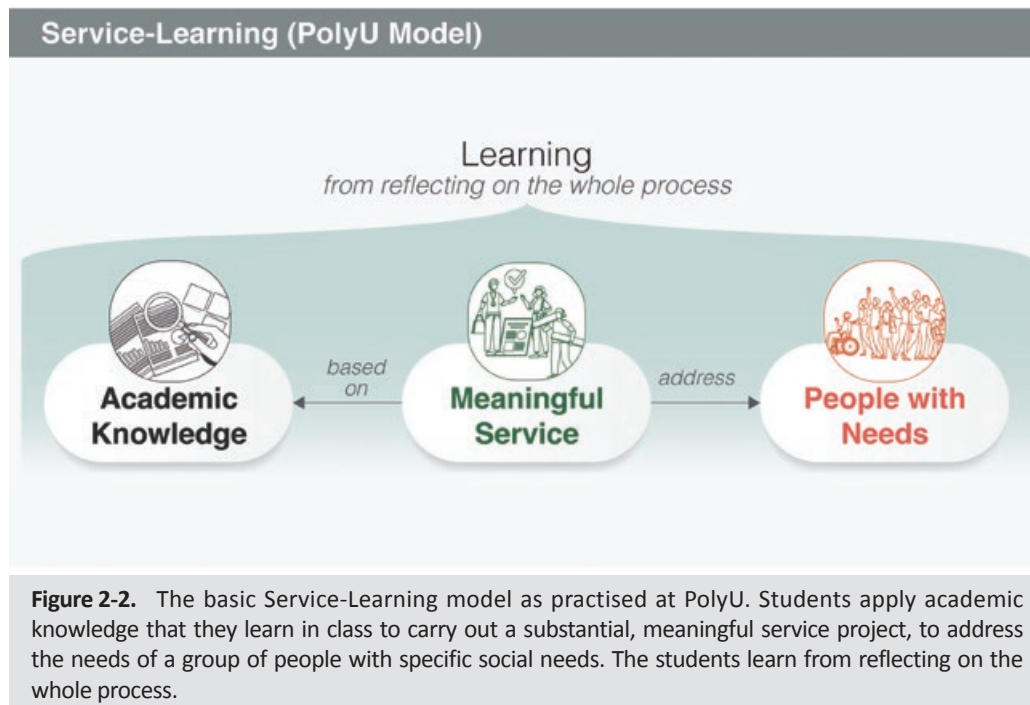
community. Alternatively, Service-Learning subjects can be open for all, having some content specific to a discipline, but at a level suitable for students from other disciplines.

A central office was to be set up to support implementation of the Service-Learning initiative. It would assist departments in subject development and liaison with community partners, staff development and training, risk management, as well as conduct research and development, solicit donations and otherwise promote the development of Service-Learning.

At Senate, the proposal generated vigorous discussion, with many issues being raised. Some colleagues were concerned that community service should be voluntary, and that rewarding students with credits and even making it compulsory might distort their motivation in “doing good”. While that was well noted as a possible issue, it was pointed out that since many students had never had a chance to truly experience serving the community, taking one Service-Learning subject out of the 40 subjects required for graduation would be a suitable “trial” for the student, such that they would subsequently be able to decide whether they wished to continue serving the community voluntarily.

Some were concerned that PolyU was granting academic credit for volunteer work. However, it was clarified that Service-Learning is much more than volunteer work and is, in fact, a legitimate academic learning pedagogy. Others were concerned that academics in hard sciences and engineering were not familiar with teaching “soft” skills such as reflection. It was pointed out that reflection is a common skill taught in the social sciences and that the University had many academic colleagues who could train others to do so.

A long debate ensued. Finally, after most major concerns had been considered, the President called for a vote. The proposal passed by a four-to-one margin. Voting at Senate is not a common occurrence since, usually, by the time a proposal reaches Senate, it has already gone through many layers of deliberation and been scrutinised by various stakeholders, ensuring that most concerns have already been



The Service-Learning subjects would be offered by academic departments. Service-Learning subjects can be discipline-specific, designed to facilitate students to apply the knowledge and skills acquired in their major studies to serve the

addressed. While the vigorous debate evidenced a diversity of opinion, the very favourable vote signalled that the University community supported the proposal.

Below is the opening statement in the proposal to Senate to establish Service-Learning as a required component in the General University Requirement in the new four-year Undergraduate Programmes, to officially come into effect for the first cohort to enter PolyU in 2012.

A university empowers its students to realize their potential. On the other hand, society invests in its citizens through the university. For both reasons, a university's students should be engaged with society. Leading universities offering Service-Learning as academic subjects include Purdue University, Brown University, University of California at Berkeley, Cornell University, Massachusetts Institute of Technology, Harvard University, and Stanford University. Some universities such as the University of San Francisco require all students to participate in Service-Learning associated with academic subjects. Campus Compact is a US coalition of more than 1,100 college and university presidents dedicated to promoting community service, civic engagement, and Service-Learning in higher education.

Our own University is committed to providing a holistic education to our students. Our current strategic plan states that our core business is to "develop all-round graduates, with ... social and national responsibility, and ... global outlook ... with attributes of responsible citizens ..." In fact, we have done very well in the core areas such as critical thinking, problem solving, professional knowledge, and career development. We have also realized that we can do better in the more intangible areas such as civic responsibility, social justice and ethics. In the past several

years, our 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. We are now ready to take the next logical step, to strengthen the learning aspects of social engagement.

We propose to give academic credits to qualified Service-Learning, to recognize and formalize the learning efforts and outcomes in this form of experiential learning. To ensure academic quality, these subjects must have proper teaching, practice, and assessment components. To ensure that all our students benefit from this form of learning, it will be made compulsory for all students. As students have different prior experiences and interests, even though the fundamental learning objectives are similar, students should be provided with ample choices in terms of themes, scales, contexts, target clients, and nature of involvement.

In time, we believe we can make active and effective social engagement a distinctive hallmark of PolyU's students – something that we can all be proud of.

Professor Walter Yuen, VP(AD) at the time, initiated a discussion on Service-Learning as a potential core component of general education in the new four-year undergraduate programme. He subsequently steered the proposal through the crucial Senate approval process in late 2010. He designed the academic procedures for the approval of Service-Learning subjects, the funding model for offering credit-bearing Service-Learning subjects, and set up the Office of Service-Learning to coordinate implementation of the programme. It can be said that without Professor Yuen, Service-Learning as it is at PolyU

would not have come into existence. He can be properly considered the father of Service-Learning at PolyU. He joined the first Rwanda Service-Learning expedition in 2013 as one of the instructors, working closely with the students in the field every day for the whole two weeks. He stayed with the students in the same spartan guest house, experiencing the same water shortages. He joined again in 2015, confirming (as if confirmation was ever needed) that he did not simply participate out of a sense of duty. A professor of mechanical engineering by training, Professor Yuen was able to help the students improve their solar oven designs and experimentation. Later, he went with another team to another project in Myanmar, sleeping under a mosquito net to keep out the millions of flying pests – just like the students. Prior to joining PolyU, Professor Yuen had a long career as an academic at the University of California at Santa Barbara. He is both a visionary and a man of action. He has since retired from PolyU.

Stephen Chan, Associate Professor of the Department of Computing, was appointed co-chair of the working group on Service-Learning in 2010, which drafted the paper proposing to make Service-Learning a credit-bearing subject, required for all undergraduate PolyU students. He was then, in 2011, asked to set up the Service-Learning Office as the founding head. The Office became the driving force for Service-Learning at PolyU, assisting many academic staff members in developing numerous subjects and projects. Together with Dr Grace Ngai, he proposed and has taught several Service-Learning subjects, and created many projects in Hong Kong, Mainland China and many foreign countries. Dr Chan has personally taken students on more than 30 offshore projects over the years. He is a member of the Board of Directors at IARSLCE (International Association for Research on Service-Learning and Community Engagement), and founder of the IARSLCE Asia-Pacific Community of Practice. He is a teacher of the subjects COMP2S01 Technology Beyond Borders:

Service-Learning across Cultural, Ethnic and Community Lines, COMP3S02 Socially-responsible Global Leadership in a Digital World, and COMP3911 Service-Learning and Civic Engagement in the Information Age. Dr Chan was born and raised in Hong Kong. He received a Bachelor's degree from the University of Rochester, Master's degree from the University of Wisconsin-Madison, and PhD again from Rochester, in Electrical Engineering, all in the USA.

Grace Ngai, Associate Professor in the Department of Computing, has developed and taught several Service-Learning subjects, developing numerous innovative projects and teaching methods. Dr Ngai's teams were the first from PolyU to serve in foreign countries such as Cambodia, the Philippines, Vietnam, Myanmar, Kyrgyzstan, South Africa, Tanzania and Rwanda. Dr Ngai was appointed the first chair of the Sub-Committee on Service-Learning subjects, which developed a comprehensive set of guidelines and procedures that ensure Service-Learning subjects are properly designed and operated. She was appointed Head of the Service-Learning and Leadership Office in 2020. She is also teacher of COMP2S01 Technology Beyond Borders: Service-Learning across Cultural, Ethnic and Community Lines, COMP3S02 Socially-responsible Global Leadership in a Digital World, and COMP3911 Service-Learning and Civic Engagement in the Information Age. At the time of writing this book, Dr Ngai was spear-heading the drive to send 2,500 students (50% of PolyU's annual undergraduate intake) on credit-bearing, Service-Learning projects outside Hong Kong each year. Dr Ngai was born and raised in Hong Kong. She received a Bachelor's degree from Brown University, and PhD from Johns Hopkins University, in the USA.

Together, Dr Chan and Dr Ngai received the University Grants Committee (Hong Kong) Outstanding Teaching Award (Team) in 2016.

2.2 Community Service-Learning Programme (CSLP)

Community service activities at PolyU became more organised when SAO launched the Community Service-Learning Programme (CSLP) in 2004. In the beginning SAO collaborated mainly with academic departments in the health and social sciences: Nursing, Rehabilitation Sciences, Optometry and Radiography, and Applied Social Sciences, as well as with units such as the Social Services Group in the Student Union. Gradually other academic departments became more active in the programme.

By 2010, CSLP had grown into quite a sizeable, well-organised programme, run by a Project Committee with representatives nominated by many academic departments. The highlight each year was the CSLP Awards, given to recognise the best projects. In 2009-2010, 54 projects were nominated for the year-end awards, with 925 students serving a client population of 16,149. About one-quarter of the projects were carried out under academic programmes such as Work-Integrated Education, where students were required to undertake practical training in a professional setting. However, the majority of the projects were undertaken by the students voluntarily as extra-curricular activities.

Some of the projects were impressive. Here are some examples:

- Mr Joseph Lam of the Department of Land Survey and Geographic Information (LSGI) took 21 students to Linnan in northern Guangdong province. Even though Guangdong is one of the richest provinces in China, Linnan was a poor village in a remote mountainous area with little contact with the outside world. There the team stayed at the Da Ping Zhen Niuluhui Primary School. They paved the school playground with cement and organised exciting learning activities for the students. It was an eye-opener for many PolyU students. The LSGI team went on to develop ever more challenging projects, and subsequently created one of the more exciting credit-bearing Service-Learning subjects, in rural Indonesia.
- An Applied Physics team organised a Community Weather Information Network. They taught secondary school students the principles of an automatic weather station and the operation of portable devices for measuring meteorological parameters in field surveys. The project taught secondary school students basic weather knowledge, thus enhancing their analytical skills and nurturing their sense of responsibility towards the environment.
- A School of Optometry team, led by Dr Chi-wai Do, organised a variety of vision screening projects. They served many different communities including children, the elderly, the intellectually disabled, and ethnic minorities. This was a big project, or rather many related projects, organised over a long period of time. Several academic staff members were involved in training and supervising the students, who were able to learn important practical skills through the project. The project offered invaluable benefits to a very large number and variety of recipients.
- Another exemplary project was the Assistive Technology Development Initiative where a team of students from the Electronic and Information Engineering Department led by Dr Chi-kin Leung designed and developed a range of assistive devices to help handicapped students in a special school use computers. The initiatives included, for example, the provision of larger buttons for students with difficulties in making precise motions with their hands and fingers.
- In another project, a team of students from different health-care departments in the Faculty of Health and Social Sciences jointly organised with Xinyang Vocational Technical College an integrated health promotion activity in rural Henan province in central China. It provided environmental, health and nutritional assessment for more than 100 primary school students.
- A Biomedical Engineering team, led by Dr Man-sang Wong and Dr Aaron Kwok, served handicapped children in Guangdong province for many years. They took measurements and moulds of the children's limbs, and then returned to their workshops in Hong Kong to produce the needed prosthetics and orthotics. They would then go back to Guangdong to fit the equipment for the children and train them how to use it properly. It was clearly a very challenging project with a very great impact on the lives of the children and their families. Another exciting dimension of this project was collaboration with American universities, which sent students to go with our students to Mainland China to work on the projects.

- Another team organised by the Department of Computing took a group of 35 students to Cambodia. Their project will be discussed in more detail in the following section.

Many of the projects, however, were small in scale, involving a small number of students, serving a small number of clients, and lasting only a short period of time. The impact or benefit of these was not always immediately obvious.

While the programme encouraged many students to engage in a variety of projects, a number of issues were encountered. Often the projects started well but momentum could not be sustained. Students often lost enthusiasm and failed to maintain momentum when they encountered other opportunities or when they were under academic pressure, such as when assignment or examination deadlines loomed. In addition, students were generally more interested in the action of providing service than the planning and preparation for the project or reflecting on their experiences or following-up with needed support. In those projects that were purely extra-curricular, the projects tended not to be very challenging, requiring little technical preparation. In most projects that were not associated with an academic programme, there might be little or no rigorous reflection on the project. As a result, it was not clear what had been achieved or learned. Since students at that time generally stayed on campus for no more than three years, and had many interests, it was very difficult to sustain a project for more than a year. Consequently, the students probably learned more about starting a project, rather than finishing or sustaining it. There was also very little passing-on of lessons learned to the next generation of students to take the subject. Each generation had to re-learn how to put together a project, find partners, find funding, recruit members, and so on. By the time they put together a project, often the momentum could not be sustained and the project fizzled out.

All the projects that were successful, making a significant impact on the community or the students, generally had a lot of input from academic staff. The overall CSLP situation and underlying factors were considered in the brainstorming session conducted by VP(AD) and the subsequent discussions by the Task Force on Service-Learning in preparing the Service-Learning proposal for Senate.

Once the new Service-Learning Requirement was approved, many of the teams and individuals active in the CSLP naturally started to put together proposals for Service-Learning subjects and projects. They became the core personnel in the piloting and formal implementation of the new Service-Learning Requirement. In summer 2011, five pilot subjects were offered to students in the then three-year undergraduate programmes, as elective subjects.

In 2010-11, we began to see a new type of project featuring in the competition for the annual awards, with several projects organised as part of pilot credit-bearing Service-Learning subjects alongside the many extra-curricular projects. As the number of Service-Learning subjects increased each year, the number of such projects increased as well. Soon, it was decided that the role of the CSLP had already been superseded by the credit-bearing Service-Learning Requirement. Having fulfilled its historical mission to encourage student participation in community service, accumulated a significant pool of experience, and nurtured a sizeable, loosely connected community of academics and students with interest in community service, the CSLP was retired.

2.3 Cambodia Project in 2010

PolyU had never had a Service-Learning credit-bearing subject prior to 2010. Hence many people, even some in the Task Force, were sceptical whether such a subject is actually feasible. It just so happened that a project quite close in nature to such a subject was conducted in the summer of 2010. That experience went a long way towards convincing the Task Force that such a subject was indeed viable.

First Cambodia Trip 2010 — Preparation

In 2010, 35 PolyU students went to Cambodia on a Service-Learning project. This was before Service-Learning became a required credit-bearing subject of study.

All the students were participating voluntarily as an extra-curricular activity. Yet they went through meticulous preparation and training, worked tirelessly for 10 days, demonstrated passion, ingenuity and perseverance, served with significant tangible impact, and learned much themselves. Most importantly, perhaps, they demonstrated how serious community service can create tangible benefit for the community while helping our students learn to become socially responsible. It helped to give the University the confidence to embark on the amazing Service-Learning journey.

The core team that organised the trip comprised primarily three academic colleagues from Computing (COMP) who had already taken several teams to Hubei and Gansu in Mainland China on impactful community service projects between 2006 and 2009. In the first two years, they served at secondary schools in Huangshi and Yangxin in Hubei in central China, running workshops and competitions on robotic car design and programming, which were very well received by the schools and their students.

Then the team moved further northwest where poverty was worse and the need seemed greater, to a newly set-up primary school in the remote mountains of Dingxi, Gansu. They solicited funds from friends to purchase several desktop computers and set up computer networks from scratch, both wired and wireless. They computerised a school library by putting radio frequency identification tags in 2,000 books and created an electronic book lending system. They offered workshops on topics that included robotics and multimedia. They even set up a remote teaching system whereby English teachers in a primary school in Hong Kong committed to teach weekly English classes to the orphans in the Dingxi primary school via video conferencing. In 2009, this was all rather advanced technology. The team was glad to have found a stable, committed, well-organised partner, with a solid platform for long-term collaboration, and a base for a variety of projects. Unfortunately, it was not to be. Less than a month after the team came back from Gansu in summer 2009, the school was abruptly shut down. It was a huge disappointment for the team, but one that also prompted them to look farther afield.

Personal connections brought the team's attention to Cambodia, a country which had gone through a genocidal civil war in 1974-79, followed by many years of continued, albeit lower-level, conflict. The situation only started to stabilise in 2000. By 2010, the general population was still very poor, infrastructure such as roads, electricity, and water supply were in very bad shape, and the government was rife with corruption. News coming out of the country was mostly negative: children scrabbling alongside adults on the city's rubbish dump for plastics, glass and metal for recycling, and trafficking of young children, primarily girls, for sex. On the other hand, foreign investment was pouring in, garment factories were being built, roads were being repaired and new ones built, buildings and apartments going up, and lakes being filled in to create more land for real estate. Information technology and English were skills treasured for business. The country was open to foreigners, offering the possibility of NGO partnerships.

We contacted a number of potential partner NGOs in Cambodia. One was an NGO (Village Earth) set up by a professor from Colorado State University, with several community centres in the slums of Phnom Penh, serving youths in poverty, teaching them literacy and basic computer skills. Another was a primary school run by the Hong Kong-based NGO International Christian Concern (ICC) operating near the city's infamous rubbish dump at Stung Meanchey. It served the children who were not able to attend government schools, mostly because of poverty. Officially, no fees were required to attend government schools but the schools were so under-funded and teachers so under-paid that fees were collected for incidentals such as exercise books, with the consequence that many children could not afford to attend. A third was an orphanage school, also run by ICC in collaboration with another organisation from Hong Kong, an hour outside Phnom Penh, among the rice paddies. Some of the children actually had families, but the families were so poor the parents could not provide for their children and sent them to the orphanage to be taken care of. A fourth partner was White Lotus, a women's shelter run by two ladies from the USA, providing a home and rehabilitation for young girls rescued from the sex trafficking trade, many of whom were heavily traumatised and barely surviving in very dire situations – addressing a very disturbing human tragedy in Cambodia. A fifth partner was another NGO, Anjali House, which



provided schooling for children in poverty in Siem Reap, near the world-famous Angkor Wat ruins.

Sherry Lile and Debbie Tetsch were the founders of White Lotus, an NGO serving trafficked girls in Cambodia. One of our first collaborators in Cambodia, they have been invaluable in helping us develop projects and make connections with other partners, particularly in the early days. They also gave us invaluable help in handling our first medical emergency in Cambodia, when two students fell sick on a six-hour bus ride from Siem Reap to Phnom Penh.

Having considered the needs of the country, input from our partners and our own capabilities and experience, we felt we could play a role broadly defined around strengthening education, particularly among children and other underprivileged groups. We could work on information technology (IT) infrastructure projects such as setting up computer networks. We could also organize workshops on basic IT skills, robotics, multimedia, etc. We brainstormed on a theme that has broad application, is easy to teach, and can benefit from technology. We settled on digital-storytelling – teaching the children and young people how to tell their stories enhanced with digital images and videos. By chance, we ran into Professor Cecilia Pang of the University of Colorado, Boulder, who happened to be in Hong Kong at the time as a Fulbright Scholar. She taught our team “image theatre” – a kind of performance very useful for teaching storytelling.

We started recruiting students for the project in the Spring semester. In our previous projects, we had been working mostly with students from the Department of Computing. At that point, feeling we should be more inclusive and give other students a chance to benefit from the project and that we had enough experience, we were

confident could train students studying other majors who had the necessary IT and other skills to carry out the projects. We felt we should be more inclusive and give other students a chance to benefit from the project. We also believed that students with different skillsets could enrich a team. When we advertised the project on campus, we received close to 200 applications! We shortlisted 70 for interview and eventually accepted 35 (22 from Computing and 13 from other departments).

This was a project that we (three professors from Computing) initiated ourselves. We were not given any funding. The cost per student, including airplane ticket, accommodation for 10 days, meals, equipment and consumables added up to approximately 7,000 Hong Kong dollars (just under 1,000 US dollars). We could have asked the students to pay their own way but we did not want this to be something that only well-off students could participate in, so we submitted proposals to a government agency, our own department, and our faculty Dean. We were able to secure the funding needed without too much difficulty. It reaffirmed our faith that there were donors and organisations readily willing to support Service-Learning projects with tangible benefits to both the community and our students.

After recruiting, we started training the students. We had planned several different projects around the theme of digital storytelling, serving different groups, with quite different needs. There were many things we had to teach the students to prepare them for the projects. Professor Pang taught us how to do “image theatre”. An experienced social worker and a friend, Ms Megan Hui, gave us a crash subject on volunteering. We thought we should pay her for her services since this is how she made a living, but she refused to take any payment because she felt it was for a good cause. We needed to prepare the students, mentally as well as physically, for potential health and travel risks. Students were also given training on topics like setting up computers and networks. The students themselves prepared their lessons for the workshops that they were going to lead.

Finally, we felt the students were ready, and flew to Phnom Penh on Sunday, June 26, 2010. For most of us, this was the first time to set foot in Cambodia.



First Cambodia Trip 2010 – The Project Itself

Village Earth Community Centers — Lakeside, Youth School, Aziza

On Monday morning, June 27, we set out as three teams, one to each of the three community centres run by Village Earth. One went to Lakeside School, in the middle of a slum on the western shore of the 90-hectare Boeng Kak Lake (one hectare being roughly the size of a football field) in the middle of the city. When we got there, in 2010, the lake was already two-thirds filled in. By the following year, there was no water, and gradually buildings and roads appeared on it. By 2020, there was no trace of Boeng Kak Lake at all. Most people who lived in the slums on the lakeshore had also been driven away, to give way to the more affluent new tenants.

A second team went to the Youth School, one kilometre north of Lakeside. The community centres offer mainly English and computer lessons. Our task was to help them set up or improve their computer laboratories and networks, and to run workshops on digital storytelling and other skills. From a distance, the houses on stilts looked idyllic but upon a closer look, many of the “houses” were no more than sheds barely bigger than a bed. Many little children ran around completely naked, with no shoes and no clothes. A man swayed tranquilly in a hammock – above a carpet of trash. It was surreal. We taught the youths image theatre and asked them to look for real-life stories to tell. We also taught them how to take, edit and use the photos to tell their story. One of the stories ran like this: a man drinks, beats his wife, the children cry, ..., they make up, ..., a happy family again. We saw many different versions of the same story – an indication of its pervasiveness.



Figure 2-3.

Students running information technology workshops for young people at AZIZA, a community centre in a slum in Phnom Penh, 2010. This project was run as a voluntary service activity, before PolyU instituted Service-Learning as a credit-bearing subject. Some of the alumni from the workshops came back to help in subsequent projects as assistants.

A third team went to Aziza, another community learning centre in the depths of the notorious White Building near the Independence Monument in the centre of Phnom Penh. The White Building was built in the 1960s and originally known as the Municipal Apartments, with an innovative design that attracted many artists. Tenants fled or were forced from the capital during the Genocide in the 1970s, when an estimated two million perished in horrible circumstances. Since then, it had gone into decline and became infamous for poverty, drug use, and prostitution. I would not have dared to walk through the slum to the centre by myself had I not been accompanied by our friends. But subsequently I walked through numerous times without incident. The tenants there were actually quite friendly. Most of the children attended government schools for half a day and then went to a community centre to spend the rest of the day. They seemed to genuinely like the centres, with some practically and literally living there. Whenever we could, we taught them to take photographs with digital cameras, edit the photos, and put together stories using the photos. The children loved computers and cameras, just like children elsewhere.

White Lotus

One team went to a very special ministry, White Lotus. It was run by two American ladies, Sherry Lile and Debbie Tetsch. They reached out to abused girls, many of whom were young girls forced to become sex workers, subsequently rescued. Some of the girls had been sold by their parents multiple times. White Lotus provided the girls a place to live, taught them practical skills, and set up small businesses so that they could make a proper living. It is very challenging work, with a not insignificant amount of risk. They demonstrated tremendous courage, enduring dedication, infinite patience, and abundant love. Our team tried to help them with some computer work and taught the girls some crafts. The girls were very smart and learned fast. The organisation needed some help in making effective use of the Internet – for example, to promote their cause and events, and to distribute the handicrafts made by the girls. We helped with whatever we could.

A side story. On Sunday, July 4, we were on a six-hour bus ride returning from Siem Reap to Phnom Penh. Two of our students, a boy and a girl, had become ill, running fevers, and suffering from diarrhoea. The girl was vomiting and very weak and seemed to be getting worse. By 6 pm, and still two hours away from Phnom Penh, we felt we had to find a doctor. However, we were not sure where to go, not being familiar with the Cambodian medical system, and it being such a late hour on a Sunday. Sherry referred us to the International SOS, a foreign-run clinic, which happened to be just two blocks away from our hotel. Stephen took the two students to the clinic as soon as we arrived in Phnom Penh, with help from three other students, and sent the other students to have dinner. The clinic was clean and tidy, and very well-equipped. The doctor was very professional. He felt, as we did, that the students had food-poisoning. He ordered a series of tests and prescribed antibiotics for both of them, while the girl had to be re-hydrated through an intravenous drip. Later that evening, the other teacher, Vincent, came with three other students to take our place, so that Stephen could go back to the hotel to rest. Eventually, after about five hours, we all went back to the hotel. Both students recovered and returned to Hong Kong safely. We were all very grateful to Sherry

and Debbie for their much needed and just-in-time help. We have since become good friends and collaborated on many projects.

Emmanuel Christian School

The Emmanuel Christian School in Phnom Penh is a primary school for 150 children from families that made their living on a rubbish mountain. The school was housed in an old former leather factory with gaping holes in the roof, in a village right next to the Stung Meanchey rubbish dump. It was then run by a Hong Kong NGO, the International Christian Concern. The school charged no fees, and even provided the children with uniforms. Even then, however, many children missed out, with some having to work on the dump.



Figure 2-4.

Running IT workshops at a primary school run by a Christian charity at the city's rubbish dump. Many of the older children skip classes to pick objects for recycling from the dump. As a result, the classes get smaller and smaller as they progress from junior to senior grades.

The children were having regular classes in the classrooms when we arrived and were clearly very well-disciplined. They quickly took their own chairs, filed out of their classrooms, set their chairs down, and in just a few minutes, all 150 children were seated in very neat rows. Amazing!

The children very quickly learned the songs and the movements, and to play the games that our students taught them, following instructions very well – even when they were enjoying themselves, laughing, and screaming loudly. They had obviously been well taught, not just in terms of discipline but also in English, and in Christian principles. The ICC also ran an international school in the city, from where some of the teachers at Emmanuel were seconded. When the children graduated from Emmanuel Primary School, they could enrol for free into the secondary section at the international school. The school has since been returned to its original sponsor, who greatly improved the building and expanded the ministry. We are continuing to work with the school.

Rhenish School

A team of us spent two days in Rhenish School, an orphanage run by ICC about an hour and a half drive outside Phnom Penh. The last stretch of the road was unpaved and full of potholes. The school was in a village of rice paddies. It was the rainy season, so the paddies were filled with rainwater, and the young shoots of rice were being planted, which made for a very pretty picture.



Figure 2-5. PolyU students from Department of Computing teaching Cambodian children in an orphanage an hour outside of Phnom Penh to create digital stories using photographs they had been taught to take with digital cameras. (2010)

Rice is the staple food there and our meals comprised rice in soup. The food was simple, fresh, and tasty. I was told an extra meat dish had been added because we were guests. The children could eat a lot, and very quickly, but they always let us get our food first. Apparently, our hosts were afraid we might not have enough if we did not go first - we could believe that! All our food was cooked using big pots on four charcoal-fired stoves, because charcoal was the cheapest fuel, and there was no electricity. The orphanage ran a generator for lighting which was shut off in the evening after 8:30 pm, when the children went to bed. There was no piped water, with the villagers collecting rainwater in huge water pots under the roof and also

drawing water from the local water hole behind the orphanage, which collected rainwater. However, collecting rainwater was far from sufficient for an orphanage with 90 children, so, two wells had been dug, costing several hundred US dollars each. Fortunately, since it rains a lot there, they did not have to dig very deep to reach the water table. Such was the primitive situation in which the children live. However, for them, this was paradise compared to what they were used to, with many used to making their living picking trash. There were four brothers here whose father ran away, whose sister died, and whose mother sold fruit in Phnom Penh but was often sick and could not make enough money to feed them. Here they had a warm bed, clean clothes, nutritious food, caring teachers, received an education, a future, and God – all for free.

Anjali House

One team travelled far from Phnom Penh, to Siem Reap, near Angkor Wat. The team served at Anjali House, a charity serving vulnerable children. Anjali House specialises in using photography and gardening to nurture creativity, telling the story of the children through photos taken by the children themselves and entering contests.

Angkor Wat and What It Means

When the service projects were completed, we took the whole team to visit the temple complex of Angkor Wat, said to be the largest religious monument in the world. In the 12th century, it was the capital of the Khmer Empire, which was then the dominant political entity in the region. With a population estimated of over one million, it was thought to be the largest city in the world until the industrial revolution. The architecture, the art, the history, and the culture represented is very impressive and it also causes you to ponder many questions. The Khmer Empire was obviously very powerful, rich and cultured in the 12th century. Fast forward to the modern day. At one point after the Genocide in the 1970s, the country could not find enough books in the Khmer language to stock a small national library. Fortunately, there are clear indications of recovery in many aspects.

Building a Foundation and an Offshore Base

The 2010 project in Cambodia represented our most diversely focused project, up to that point in time. In the past, in Hong Kong, Hubei and Gansu, we targeted a specific community each time, and most projects were directly related to IT. In Cambodia, we found so much need among so many diverse groups; we felt compelled to do as much as we could. We ended up serving multiple groups at the same time, in many ways. In the process we learned to be adaptable and trust our students to work and solve problems on their own. We also learned to take calculated risks. Our experience from this first trip to Cambodia became the foundation for so many international projects.

Little did we know at the time, but soon after we returned to Hong Kong, we had a chance to present the Cambodia project to the University's management in the form of a syllabus for an academic subject, and found that it compared favourably to a regular three-credit academic subject in terms of time, effort, and rigour. It then became one of the key pieces of evidence that gave the University confidence to decide to make Service-Learning a required academic subject for all undergraduate students at PolyU.

Gradually, Cambodia became an offshore base for us. Satisfied partners introduced us to more partners and needs. We have since developed many more projects, collaborated with many more NGOs, and brought along many other teams from PolyU. None of these could have been envisioned at the time.

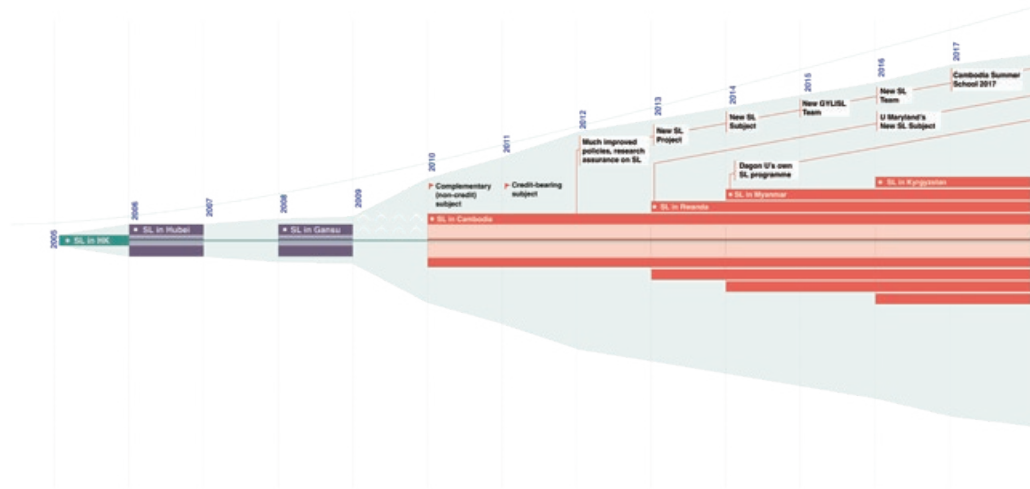


Figure 2-6. A visual timeline of the early journey of Service-Learning. It started with Service-Learning in Hong Kong, extended into Mainland China, and then ventured into Cambodia. It turned out that outreach into Cambodia played a pivotal role in the story of Service-Learning at PolyU. †

Chapter 3

Building Up

The PolyU Senate approved the proposed Service-Learning Requirement in December 2010, kicking off the process of building a brand-new core component for the new four-year undergraduate curriculum. At the time, there was only a year and a half left before the Requirement would come into effect, for the cohort of students starting the first four-year undergraduate programmes in September 2012, but at this point there was still nothing in place. Not one single credit-bearing Service-Learning subject (course), and nobody with experience teaching, let alone designing, such subjects. No academic procedure or infrastructure existed for funding, getting subjects approved and then subsequently assuring their quality control. There were no programmes to train teachers to design and teach these subjects. All these issues had to be addressed urgently in order to roll out the new Service-Learning Requirement in time. It was obvious that we had to move very fast to have any chance of having at least some of the required subjects in place when the students arrived on campus in September 2012.

We quickly wrote the initial guidelines for Service-Learning subjects based on the accepted programme proposal. The original Task Force was transformed into a committee to oversee the development of Service-Learning subjects, and to develop the necessary academic procedures for doing so. We invited those academic staff members who had been leading extra-curricular community service projects, and other interested colleagues, to propose Service-Learning subjects. With some external help, we ran workshops to train our academic staff in writing subject proposals. We used the one-year-and-a-half window we had to pilot a number of Service-Learning subjects, and to prepare for the formal launch. We piloted the subjects by offering them to existing students (who were not required to take Service-Learning subjects) as elective subjects.

3.1 Piloting

The Task Force that was assembled to develop the Service-Learning Requirement was tasked to develop a plan to move things forward. It became obvious that we needed to experiment with some subjects to prepare for the formal roll-out. It was decided to urgently develop a small number of pilot subjects and offer these as elective subjects to the students in the then three-year programmes to test the design. This way, the University could gain crucial experience in developing, offering, and managing Service-Learning subjects, and use such experience in the design of the supporting infrastructure.

The Spring semester of 2010/11 was about to begin. There simply was not enough time to develop any subjects for piloting in that semester. The earliest that any subjects could be ready was Summer 2011. The Task Force enquired around the University, to see how many Service-Learning-related activities presently existed in the various faculties and schools. We were particularly looking for those with potential to be developed into credit-bearing subjects. It was decided in early February to issue a call for pilot subject proposals.

In mid-March, a Call for Proposals for pilot Service-Learning subjects was sent from VP(AD)'s office to departments and faculties. We provided a set of criteria for the approval of Service-Learning subjects based on the general principles stipulated in the original proposal to the Senate.

To qualify as a subject meeting the Service-Learning Requirement of PolyU, the proposed subject:

- 1 Must carry a minimum of three credits
- 2 Can last for one or two semesters, and can extend into the Summer Term
- 3 Must include, in addition to the intended learning outcomes associated with the academic content of the subject, the following learning outcomes common to all Service-Learning subjects:

On completing the subject, students will be able to:

- Apply the knowledge and skills they have acquired to deal with complex issues in the service setting
 - Reflect on their role and responsibilities both as a professional in their chosen discipline and as a responsible citizen
 - Demonstrate empathy for people in need and a strong sense of civic responsibility.
- 4 Must include in its teaching and learning process, a requirement for all students to participate in community service or engagement activities that:
 - address identified community needs in a meaningful way;
 - create opportunities for students to interact directly with the service users or community members; and
 - benefit both the students and the service users/the community at large. For a three-credit subject, students are normally expected to spend a minimum of 40 hours (approximately one-third of the expected total student effort) in rendering the service.
 - 5 Must provide structured opportunities for reflection to enable students to connect their learning with the service, and to reflect on their role and social responsibilities both as a professional and responsible citizen.
 - 6 Must include a rigorous and systematic process in which students' performance in and the learning gained from the required service activities are assessed, using a letter-grading system.



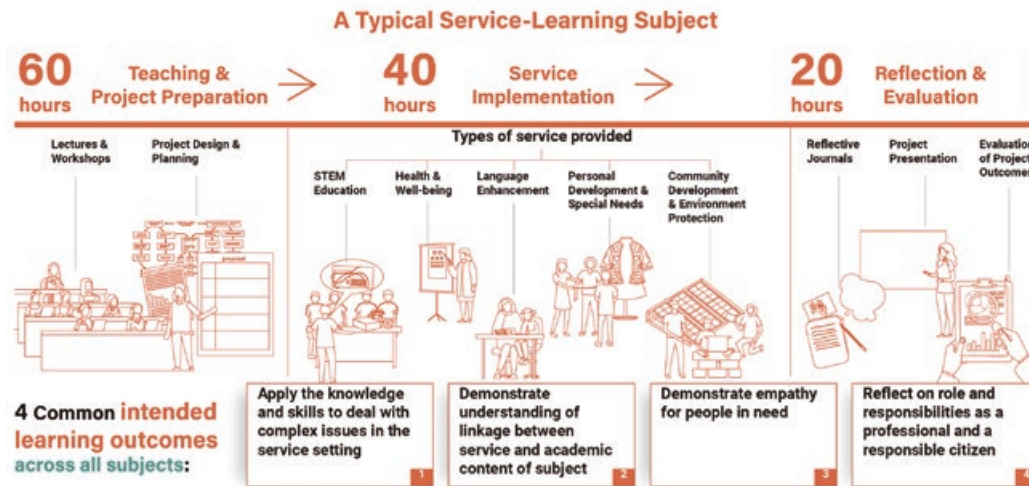


Figure 3-1. Overview of a typical Service-Learning subject at PolyU. The academic content, service, target community, social issues, and other details may differ. However, all subjects share common intended learning outcomes, which qualifies the subject as Service-Learning, and ensures consistency across all Service-Learning subjects.

On March 28, 2011, the first seminar on “Developing Proposals for Piloting Service-Learning Subjects for the four-year Curriculum” was held. It was hosted by Dr Stephen Chan, Associate Professor in the Department of Computing and Convenor of the Task Force on Service-Learning, and Dr Kam-por Kwan, of the Education Development Centre and Special Assistant to VP(AD).

Seven proposals for new Service-Learning subjects were subsequently received. A panel appointed by VP(AD), comprising Professor Daniel Shek, Dr Kam-por Kwan, and Dr Stephen Chan, convenor of the Task Force, vetted the subject proposals based on the principles presented in the original proposal for the Service-Learning Requirement. Five proposals were approved.

The criteria for vetting Service-Learning subject proposals were developed quickly, based on the original Senate proposal. They have since been revised several times but the core concepts have remained reasonably unchanged.

The vetting panel was an ad hoc set-up, such was the boot-strapping process through which the academic procedures and policies were developed. A sub-committee for the approval of Service-Learning subjects was subsequently established as a sub-committee of the Committee on General University Requirements (CoGUR). An Office of Service-Learning was also set up to promote Service-Learning and support its implementation. More on these important developments will follow in a later section.

Five Pilot Subjects

Five Subject Proposals were approved for funding support.

- Chinese as a Second Language in Local Schools: Proposed by Dr John Wakefield of the Department of Chinese and Bilingual Studies as a Discipline-specific Subject for students in their own department
- Teaching English as a Service-Learning Experience: Proposed by Dr Cathy Wong of the Department of English, as a Discipline-specific Subject for students in their own department
- Biomedical Engineering Services to Underprivileged People with Physical Disabilities: Proposed by Dr M S Wong, Dr Aaron Leung and Dr Raymond Tong of the Department of Health Technology and Informatics as a subject open to students in their own broad discipline
- Community Psychology: Proposed by Dr Charles Chan and Dr Kevin Chan of the Department of Applied Social Sciences as a subject open to all students
- Service-Learning and Civic Engagement in the Information Age: Proposed by Dr Stephen Chan, Dr Grace Ngai and Dr Vincent Ng of the Department of Computing as a subject open to all students

Funding was provided to develop and run the proposed subjects and conduct evaluation of their effectiveness. Two other proposals were sent back for revision and re-submission. Most proposals had been developed by individuals or teams with prior relevant experience.

“Community Psychology” proposed to conduct assessment of adolescent health and preventive health screening, physical health promotion activities, and mentoring of children from disadvantaged families in the Kwai Tsing and Tsing Yi Districts of Hong Kong. Through the subject, students would learn to apply key concepts in community psychology such as community participation, empowerment, and sense of community to the formulation and implementation of community interventions targeting community health, individual wellness, and civic society. Students were to be guided through structured reflection opportunities such as through developing an action plan and goal statement, and writing application journals and reflective reports. Dr Charles Chan, an expert in clinical psychology and experienced in youth development, had been conducting projects related to youth mentoring for many years. He was a key member of our team during the early years of Service-Learning at PolyU when we were building the foundations for the programme. Sadly, Dr Charles Chan has since passed away due to illness. He is remembered fondly by many. Fortunately, Dr Kevin Chan has continued to teach this subject.

The teaching of language as a community service is a common and obvious theme. In Hong Kong most of the population speak Cantonese. Hence new immigrants and ethnic minorities need to learn to speak Cantonese. On the other hand, English is very popular and necessary for academic study and business. For students studying Chinese, English, or translation, Service-Learning can help strengthen their own academic knowledge and skills while they learn to be more engaged with the community. A variety of such subjects employing innovative practices have since been developed.

“Biomedical Engineering Services” is an interesting case. Prior to making the proposal, the proposers had been taking their students to sites in Mainland China to practise orthotic interventions for children with cerebral palsy. It had

already been shown to be a very successful endeavour in training the students in practical academic skills as well as in community engagement. They had also been collaborating with foreign universities, who sent their students to Hong Kong to travel to China with our students on these projects. The teaching team had been operating their project in Mainland China each year. Unfortunately, they had not been able to transform the project into a Service-Learning subject. There were complications relating to reconciling availability across clients, the partner university, and PolyU’s academic calendar as well as other logistical issues. Service-Learning can be much more challenging to manage than regular academic subjects, because of the need to balance academic and community objectives, the partnership with external organisations, the logistics of the field work, and the financial costs of the travelling and equipment/material.

“Information Age” proved to be an ambitious proposal. The team had already carried out many service projects in Hong Kong, Mainland China and Cambodia prior to submitting their proposal. The project in Cambodia in summer 2010, introduced in Chapter 2, was a key factor in convincing the Task Force on Service-Learning that credit-bearing Service-Learning was feasible at PolyU. They had already offered a short, non-credit bearing subject on Service-Learning in the previous year. In the pilot course offered in summer 2011, 47 students from eight different departments, representing five different faculties, registered for the course. They were students studying under the three-year curriculum and not required to take Service-Learning. They took the subject for extra credit, beyond the number of credits required for graduation.

The students were organised into three teams.

- 1 Team 1 ran a week-long workshop on computer literacy for young refugees in Hong Kong. It is estimated that there are approximately 10,000 refugees in Hong Kong. Few have any realistic prospect of resettling in other countries.
- 2 Team 2 went to Xinjiang to run a week-long workshop for the students in a school associated with a factory owned by a business woman from Hong Kong.
- 3 As introduced in Chapter 2, Team 3 went to Cambodia and ran five projects:

- A programming workshop for a vocational school, the Asian Human Resource Development Institute, run by an organisation from Hong Kong: The organization has since collaborated in many service-learning projects.
- A summer workshop for a primary school for children living at Phnom Penh's infamous Stung Meanchey Rubbish Dump: Every time it rains, the school is flooded because there are big holes in the roof. The kids are poor but smart and enthusiastic. They have retained a special place in our hearts. The school is now in much better shape.
- An IT workshop at the community centre at New Life Fellowship, a church: The church has had a big impact on many young people who came from the rural areas to Phnom Penh to study and work.
- A workshops for the staff and girls at White Lotus, a women's shelter for young girls formerly trafficked for sex.
- IT workshops at the House of Rainbow Bridge, a hospital for HIV-positive children, run by an NGO from Hong Kong: Initially, the hospital was set up as a hospice for the sick children to die with dignity. With medical advances, it has turned into a long-term care facility for these children.



Figure 3-2.

Running IT workshops at a hospital for children with HIV/AIDS in Phnom Penh (2011). These are medicines (one basket per child) that help the children fight infection and related health issues. Most survive but face a life-long struggle with health issues, stigma, and poverty. When students are well-informed, they can be physically as well as mentally prepared to interact with the children without incurring excessive risks.



Figure 3-3. Running IT workshops at New Life Fellowship. It is a multi-service community centre run by a church that provides education opportunities for youths from the countryside and those on the streets. They run excellent English and IT classes.



Figure 3-4. In 2012, COMP students conducted a survey of the slum around the city rubbish dump at Stung Meanchey in the rain. The survey provided comprehensive data on the families for our partner NGO which provides critical services to that community. Many in the community make their living by picking recyclable material from the rubbish, in extremely unsanitary situations.



Figure 3-5. (a) Running digital storytelling workshops under (b) house built on stilts, on Tonle Sap Lake, near Siem Reap, Cambodia, in July 2013 (dry season). (c) In the rainy season, the water rises 20-30 feet, often flooding even the houses on high stilts. When that happens, the houses are accessible only by boat.

The Cambodian team was particularly challenged by the difficult environment and enormity of the problems they faced. However, the work proved extremely rewarding because of the very visible impact on people's lives. It was estimated that the students spent 150 hours each on the course, including the academic content, cultural preparation, health precautions, project preparation and execution, reflection, and presentation.

The course has since spawned several other Service-Learning courses, serving Hong Kong, Cambodia, Myanmar, Rwanda, Kyrgyzstan, and there are plans for more. More on these developments are to be found in subsequent chapters.

We also received proposals from outside the University. For example, we received a proposal from an educational non-profit organisation to outsource part of our programme. Unfortunately, the proposal, while heavy on leadership development, was relatively light on Service-Learning. It also relied heavily on

external speakers to deliver the teaching. It was felt that since Service-Learning is a core component of our undergraduate curriculum, it would be more appropriate to develop our own longer-term teaching capacity for Service-Learning courses. Also, we believe it is not advisable to over-rely on part-time or short-term staff for the core Service-Learning teaching.

We have also, on occasion, received enquiries and proposals from student-based organisations. These are typically focused on student exchange or community service. Generally, these proposals emphasise cultural exposure or voluntary service, but are lacking in academic learning objectives, and rigorous teaching and assessment.

Special Friends at the Beginning of Our Journey

In summer 2011, we received some unexpected help. By chance, we got to know Professor Dayle Smith, who at the time was professor of management and organisation behaviour at the University of San Francisco. She was then visiting another university in Hong Kong as a General Education Fulbright Scholar. University of San Francisco is a Catholic Jesuit school where Service-Learning is compulsory, and Professor Smith happens to be a strong advocate of Service-Learning in their business school. Even though she was not attached to our University, she very kindly gave us excellent advice on various aspects of Service-Learning. Professor Smith ran a seminar at PolyU on assessment, an important aspect with which we had very little experience. She also introduced us to scholarly work on different aspects of Service-Learning, including the work of Professor Andrew Furco, whom we subsequently got to know very well.

Dayle Smith was Associate Dean of the Business School at University of San Francisco in the early 2010s. While a Fulbright scholar in Hong Kong, Professor Smith gave the PolyU community very valuable workshops, references and material, helping our

fledgling programme get started. Her help was particularly valuable at the beginning of our journey when few of us had any experience at all in academic Service-Learning. We also had little knowledge of what had been done at leading universities; hence her advice and suggestions saved us a lot of time getting started. Professor Smith was always positive, encouraging, and forthcoming whenever we asked for help and advice. She subsequently continued to contribute as speaker at our conferences and in other capacities. We have stayed good friends ever since.

Assessment was indeed one of the challenges raised at the debate at Senate in December 2010, when the proposal to make Service-Learning a core requirement was discussed. Some professors in science and engineering believed that they did not know how to assess the “soft” skills required in understanding and providing community service to people in need. However, teaching and assessment of such skills is quite common in many disciplines such as social science and health. Professor Smith and others (including colleagues within PolyU) have since shown us ways to teach and acquire such skills.

We became firm friends with Professor Smith. In 2012, we sent a small delegation to visit several American universities to learn about Service-Learning, and this included a productive visit to Professor Smith at the University of San Francisco. One very concrete result of that visit was a detailed understanding of their McCarthy Center for Public Service, understanding which became very valuable when we were to set up our own Office of Service-Learning. Another tangible result was discovering that their Rector, a Jesuit priest, led a team of their senior management on an annual trip to South America to visit their students carrying out Service-Learning projects in the field. In 2014, we successfully invited our own President, Professor Timothy Tong, to visit our students serving in the villages and slums in Cambodia. Professor Tong subsequently became a strong supporter and visited many projects.

We kept in touch with Professor Smith even after she moved east to Clarkson University and then west again to Loyola Marymount University. She is one of many special friends of PolyU that we have made through Service-Learning, who has been very helpful on our journey.

Our collaboration with Professor Smith provides an interesting context to a phenomenon noted by many people from different perspectives. Mainstream economic theories are generally believed to be founded on the assumption that individuals seek to make decisions to optimise personal benefits. Altruistic motivations are generally not given much consideration. This point has been made by prominent scholars including Professor Muhammad Yunus, pioneer of microcredit and microfinance and a Nobel Prize awardee. Some scholars have observed that business schools may be less active in Service-Learning compared to disciplines such as social science, humanities, and engineering. Professor Smith and others like her demonstrate that this observation may not be universally valid.

3.2 Sub-committee on Service-Learning Subjects (SCSLs)

The Service-Learning Requirement is a part of the General University Requirements – a set of 30 credits-worth of General Education Subjects that all undergraduates are required to take, under the four-year undergraduate programmes starting in 2012. A Committee of General University Requirements (CoGUR) was set up, as a sub-committee of the Academic Planning Committee (APC) to manage the GUR subjects. APC itself reports to Senate, the highest academic body of the University.

CoGUR met for the first time on September 26, 2011. It was then chaired by Professor Michael Tse, Chair Professor and Head of the Department of Electronic and Information Engineering. For some, it might seem unusual for a professor in

engineering to take charge of general education at a comprehensive university. In fact, Professor Tse is someone with a wide range of interests and expertise. For example, among his wide range of services to the University, academic community, and society at large, he was chairman of the PolyU Culture Promotion Committee, as well as a member of the Hong Kong Government's Quality Education Fund.

Under the CoGUR, seven sub-committees were set up to manage the different types of subjects. One of these, the Sub-committee on Service-Learning Subjects (SCSLS), considers and recommends to the CoGUR subjects to be offered under the Service-Learning Requirement. It met for the first time on September 19, 2011. Dr Grace Ngai, Associate Professor in the Department of Computing, was appointed Chairperson of the Sub-committee. Dr Ngai was one of the very few people in PolyU at the time to have had extensive experience related to Service-Learning, some of which has been referred to elsewhere in this book.

Subsequent to the first call for proposals to develop pilot subjects on Service-Learning in March 2011, a second call for pilot proposals went out in summer 2011. By the time SCSLS was established, the second-round proposals were coming in. The first order of business at the first meeting was to consider the second-round proposals for pilot Service-Learning subjects.

Proposals were evaluated and determined to be either “suitable to be offered”, “requiring revision”, or “not suitable”.

Common issues included affecting acceptance of a proposal were:

- The proposal is heavily focused on academic learning but the benefit to the community is not obvious. For example, some may seem more like field studies or research which may generate reports but have no tangible benefits to the community studied.
- The proposal is too focused on the benefits to the recipient, but it is not clear what the students learn from the process. For example, students may be tasked to carry out a well-defined intervention without much room for critical thinking or problem solving.

- The expertise required for the service is beyond what can be expected from undergraduate students. For example, providing high level consultancy which may be more suitable for a professor.
- The students are expected to provide mainly routine operations, without higher order challenges from which to learn. For example, providing menial labour for construction.
- The community need is not obvious. For example, the targeted community can in fact easily afford to pay for the services themselves.
- Unreasonable risks are involved. For example, the service involves dangerous activities that the students have not been trained for or the project sites are not politically stable.
- The proposed teaching/service and the background/qualification/experience of the proposers do not seem to be aligned.
- The logistical arrangements may be unrealistic. Examples might include service sessions being broken up into many short sessions, incurring much overhead, such as on travel time, setting up and preparation.

The Sub-committee wrote detailed comments on the proposals and made suggestions to assist the proposers in revising their proposals. If deemed appropriate, the chairperson, or members of the committee would also meet with the proposers to convey the feedback and suggestions more effectively.

SCSLS is responsible for ensuring that Service-Learning subjects are true to the spirit of Service-Learning Requirement as approved by Senate. This is particularly important in view of scepticism initially expressed by some at the University. Hence the Sub-committee has adopted a rigorous approach towards the vetting of the subject proposals. Many of the proposals have indeed undergone several rounds of revision before the proposed subject was considered acceptable to be offered. It is fair to say the Service-Learning programme has earned the respect of academics on campus (though not a little grumbling from proposers) for its academic rigour.

Charles Chan was Associate Professor of the Department of Applied Social Studies, teacher of APSS3S01 Community Psychology and Member of the Sub-committee on Service-Learning Subjects. Charles had a great wealth of experience working with youth development for many years as an expert in social work, creating many innovative projects including mentoring schemes for youths. He made important contributions in establishing the quality standards for Service-Learning subject proposals and made very constructive comments and suggestions on proposals. This was particularly important in the early days of the programme, when pertinent experience was at a premium. Sadly, he passed away in 2017 due to illness. The community remembers him fondly.

On the other hand, the Sub-committee is always impressed by the passion and effort made by many of the proposers. They recognise that proposing and teaching Service-Learning can take considerably more initiative and effort than teaching regular academic subjects. Some lament that their efforts are not fully recognised, and yet they persevere. Many of the proposers also do not have much relevant previous experience. Consequently, the Sub-committee often feels compelled to provide as much assistance as possible to the proposers to help them deliver a viable proposal.

On the surface, an adversarial relationship might be perceived to exist between SCSLS and the Office of Service-Learning (OSL). Ultimately, both SCSLS and OSL aim at building up a strong Service-Learning programme, cultivating a culture of social engagement at PolyU. However, the SCSLS is responsible for ensuring Service-Learning subjects achieve high academic standards, hence sometimes making it challenging for proposals to be approved. The OSL mandate is to promote Service-Learning subjects, ensuring that there is a sufficient supply of subjects and places for students. In practice, the two units work closely together. SCSLS specifies the academic standards expected, which informs OSL in developing Service-Learning subjects. On the other hand, the experience gained by OSL in implementation

informs SCSLS on good practices to be applied. The two units have since developed an effective symbiotic working relationship.

3.3 Office of Service-Learning (OSL)

Service-Learning subjects are academic subjects. Each addresses a social need from the perspective of appropriate knowledge and expertise. As such, they are properly offered by an academic department in the relevant discipline. However, most academic departments at PolyU, if not all, in 2012 had little or no experience offering Service-Learning. In fact, there were few professors in the whole University who had even heard of Service-Learning, let alone knew how to teach it. We knew we needed help, so we embarked on a study of how Service-Learning is taught at some of the universities that have significant Service-Learning programmes. These include the University of Pennsylvania, Tufts University, Purdue University, University of San Francisco, and many others. We studied the type of Service-Learning subjects offered, their syllabi, how such subjects are offered, what types of projects are undertaken, and how the programme was supported.

Many universities set up a unit that is the focus of Service-Learning across the university. This makes sense for several reasons. Service-Learning subjects share certain characteristics that make them different from many regular academic subjects. They are experiential, with considerable field work conducted outside of the classroom or laboratory. Special considerations such as risk management and travel logistics may be required. Service-Learning involves a target community and a partner which could be a non-profit organisation. It requires the teaching and assessment of reflection, which is uncommon in many academic disciplines, particularly in science and engineering. Extra funding may also be required, for example, for equipment, materials, insurance, and travelling. Teachers may need to be trained in relevant aspects. Development, evaluation and research may be necessary focusing on appropriate pedagogies. Some professors who are particularly resourceful or specially trained may be able to handle all these demands unaided

but, in general, it was felt that a central unit could better support these various needs across the University. Thus, it was decided early on to establish the Office of Service-Learning (OSL) to promote and support Service-Learning across PolyU.

The coordinator of the Task Force on Service-Learning, Dr Stephen Chan, was asked to set up the Office, and appointed as the founding head. In some respects, this was an unusual move among universities active in Service-Learning. The corresponding office in many universities is often headed by a person with a background in social science, humanities or education, whereas Stephen's background was in engineering. On the other hand, Stephen did have significant experience in organising Service-Learning projects with students and was instrumental in developing the original proposal to set up the University's Service-Learning Requirement. There is also the contextual reality that PolyU's core strength is in applied science and engineering. Having the Office headed by an academic in engineering enhances the credibility of Service-Learning in engineering and potentially increases buy-in from academic faculty from those disciplines. Certainly, it is now easier to imagine Service-Learning subjects from the engineering or science departments, applying discipline skills to practical social needs. It is not just something only for humanities and social sciences.

OSL started with a small team of staff transferred from the Student Affairs Office (SAO), who already had had some experience organising student community service projects. In fact, as noted in Chapter 2, SAO had been running a Community Service-Learning Programme (CSLP) for several years. CSLP was an extra-curricular programme which involved mainly community service but with some teaching and learning elements. However, there were a few staff members with experience in running community service projects. Even before OSL was established, the workload was growing enormously. The clock had started counting down towards the formal launch of the Service-Learning Requirement in September 2012. Subjects had to be developed, vetted and approved. Teaching staff had to be trained. Projects had to be designed, target communities identified, partners found, risks assessed, funding secured, and so on.

There is a little-known episode which is worth re-telling because it reflects our values. Initially OSL was allocated offices on a high floor in the main administrative building on campus. The location was just below the offices of the senior management. The OSL Head was allocated a corner office with huge windows on two sides, overlooking the campus and, in the distance, the centre of Kowloon. It was certainly a prestigious location for an office. However, there were several concerns. The few OSL staff members were to be seated with staff from other offices in a big, open-plan room, making it difficult to build a sense of cohesion among these new colleagues. Worse, to get to the Head's office, visitors (who were expected to be mainly staff and students) would have to take a long elevator ride and then navigate their way through the big open-plan area. It would be an intimidating experience for many students. Because the aim was to make OSL a student-friendly office where young people would feel welcome, we decided to give up this prestigious location and eventually found an old office which had been vacated by another department.

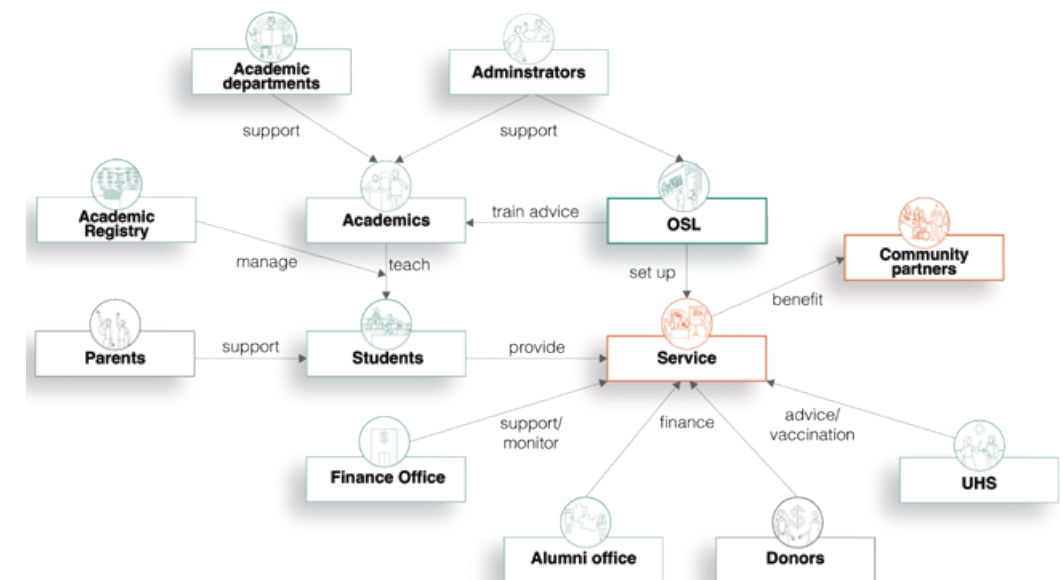


Figure 3-6. The Office of Service-Learning was set up to drive the implementation of Service-Learning at PolyU. OSL is at the centre of a complex network of stakeholders who work together to enable Service-Learning to thrive at PolyU.



Subject Vetting

One of the first and most urgent tasks was to support the work of SCSLS in getting subject proposals developed, vetted, and approved. Workshops were organised to publicise the various aspects of the Service-Learning Requirement: what types of subjects qualify as Service-Learning, what are the expected learning outcomes, what are suitable projects, how to conduct and teach reflection, how to assess student performance, how to find suitable partners, and how to develop and finance offshore projects? Speakers included staff who were familiar with the policy, such as Dr Stephen Chan and Dr Kam-por Kwan, as well as those with experience in teaching Service-Learning, such as Dr Grace Ngai; or those who may not be experts in teaching Service-Learning but nevertheless had experience in teaching aspects relevant to teaching service such as reflection or assessment, such as Dr Kevin Chan of the Department of Applied Social Studies. Also included were external experts such as Professor Dayle Smith, then at the University of San Francisco.

Considerable assistance, even hand-holding, was also required. Many academics needed help in turning general ideas into concrete proposals. Some were experienced teachers who had, surprisingly, never written a subject proposal or even a subject syllabus before. Some needed help in turning a vague idea of a service project into a clear, feasible, executable project plan. Many needed help in connecting to the target communities and partners. Some were simply frustrated by the challenge of coming up with a proposal that satisfied all the requirements. Patience and perseverance were as much required as expertise.

Unfortunately, many academics seem to find it difficult to distinguish between (1) the Sub-committee that vets and approves the subject proposals and (2) the OSL that assists them in designing the subject proposals. While the OSL staff do all they can to help teachers design the syllabus, projects, and assessments, to satisfy the requirements laid down by the Sub-committee, OSL cannot predict whether SCSLS would actually support the proposal. Members of academic committees often disagree, hence the decision on a proposal can be unpredictable. Some teachers have found it difficult to fully comprehend why a subject proposal developed

with the assistance of OSL which the Office itself feels confident about would not subsequently be approved by the Sub-committee.

This confusion is sometimes compounded by the fact that SCSLS often asks that the proposal be revised according to their comments. The members of the Sub-committee do not see it as their duty to put in the time and effort to assist the proposers to revise a proposal, which can be a lengthy process. That task is often taken on by OSL. Hence, the proposers may vent their discontent at OSL staff, not realising that the Office is actually their ally in this endeavour.

This should remind us of one of the core challenges of teaching Service-Learning – to help our students to see an issue from a point of view different from their own: the community, partner NGOs (particularly those from a foreign country), students from partner universities, their teachers, and their teammates, for example. It appears that it is not just students who find that challenging; even mature, experienced teachers, face a similar challenge. A related observation is that a teacher who had earlier complained about the overly critical vetting might turn out to be just as critical in vetting other proposals once appointed to the Sub-committee themselves. We are not always as objective as we would like to think of ourselves. We often change our perspective once our role changes.

In the whole process, however, we have observed many academics who were passionate about helping students engage with societal issues. Many had been looking for channels to engage and apply their expertise, finding Service-Learning a welcome opportunity. Many feel stimulated, challenged, energised and revitalised. The process can be frustrating and even painful, but eventually satisfying and even rewarding.

Match-making

Each Service-Learning subject must include a service project for a target community, often in collaboration with an NGO. Mistakes can happen when trying to connect academics with the communities their Service-Learning initiative intends



to serve. We needed to build up many Service-Learning subjects in a short time, so it was necessary to find a large number of suitable communities and NGOs with whom to partner. There are, of course, many communities in need, and numerous NGOs helping them, even here in Hong Kong. The question is which ones are the most appropriate to work with?

It was suggested to survey potential partners in the community on their needs, by inviting them to submit proposals for potential projects, and then matching Service-Learning subjects and teachers to these projects. It sounded like a systematic and efficient approach at the time, but it turned out to be a big mistake. We quickly collected more than a hundred such project proposals from dozens of community organisations. When we presented this list of potential projects to our academic colleagues, however, we found few takers. Some teachers were looking for projects but could not find suitable ones from the list. Many were developing ideas but not yet ready to take on the projects at that time. After trying very hard for several months, we were able to take up no more than a dozen of those projects and so we ended up disappointing a lot of friends in the community. This proved to be a painful but valuable lesson for us; we must avoid creating unrealistic expectations. We have learned to be much more cautious when trying to develop collaborations with our partners.

OSL began to develop strong links with certain academic departments. The Head of OSL, Dr Stephen Chan, was seconded from the Department of Computing, where he had been collaborating with Dr Grace Ngai on developing Service-Learning projects, which subsequently developed into credit-bearing Service-Learning subjects. Soon the collaboration generated a range of projects, in multiple locations in Cambodia. OSL staff assisted in handling the logistics, arranging transportation, training the students and supervising them in the field. OSL also received a lead from Duta Wacana Christian University in Indonesia for collaboration. Mr Joseph Lam of the Department of Land Survey and Geographic Information had been taking students to serve on projects in Mainland China. We invited Mr Lam to take a team to Indonesia, to work with Duta Wacana, assisted by a colleague from OSL. More about this project will follow in Chapter 4.

From these seeds have grown many strong collaborative relationships between OSL and academic departments. OSL, as a non-academic department, cannot offer Service-Learning subjects on its own. These must be hosted by academic departments. However, OSL has been developing strong, well-rounded expertise in setting up, conducting, and supervising innovative projects. Above all, OSL has been developing a strong international network of community partners, which is invaluable when setting up new offshore projects and innovative programmes.

On the other hand, each academic department has its own academic discipline and responsibility vis-à-vis its own students. They do not have a mandate and strong incentive to develop programmes of benefit to the wider university community. For example, when an academic department develops a project in a foreign country, it may have no strong motivation to share the site with teams from other departments. In reality, however, the needs of a community are generally multi-faceted. The project may demand electricity, clean water, health support, and education resources, all at the same time. OSL is in a good position to develop a site for multiple teams, with different skills, from multiple departments, and to leverage the connections developed for the benefit of the University as a whole.

Over time, OSL identified several strategies for developing Service-Learning subjects and projects.

- Need-driven: Often we are aware of a need that we come to feel strongly about, such as the plight of the elderly, children with special needs, underprivileged youth, extreme poverty, and green energy. This may be because the need is particularly acute, under-served, or has a strong connection to the University.
- Capability-driven: PolyU is a comprehensive university with some strong disciplines, such as in a wide range of engineering fields, fashion design, nursing, and rehabilitation. We believe all disciplines have something to offer to address societal needs and OSL is particularly eager to make better use of under-utilised strengths. Thus, we actively search for ways to assist certain disciplines with relatively few Service-Learning subjects in contributing more.

- Strategic considerations: We are keen to develop several offshore bases, with demonstrated needs, strong partners, good learning opportunities, and the potential for innovative practices. One such base is Cambodia, where we have worked since 2010, and where we regularly send over 100 students every year, working in multiple teams, from a diverse range of disciplines. Another is Rwanda, where we started operating in 2013. Here the scale is smaller due to the great distance. Both these countries have offered tremendous learning opportunities and resulted in our students making significant impact.

Risk Management

There is often an element of risk involved in community service. People who are underprivileged are likely to be forced to live in habitats that may not be the most desirable. Their living environment may pose health risks to our students and colleagues when we visit to offer our service. On the other hand, our actions may also pose risks to the people we serve. Our students may misbehave and cause harm to vulnerable people. There are risks that we need to be aware of, to better and more safely deliver the desired service. If we insist on taking no risks at all, we may end up not doing anything. On the other hand, we have an obligation to ensure the safety of our students and staff, and the people we serve. Herein lies a tension, and the need to balance the risk against the benefit. Ideally, we need to manage the risks at an acceptable level. Hence, it is important for us to be aware of the potential risks involved in any community service project, and to do all we can to reduce and manage them, and avoid taking excessive risks.

Health risks are perhaps the most obvious. Is exposure to known infectious diseases, such as Ebola, HIV/AIDS, malaria, or hepatitis, a potential danger? Are there vaccinations and other preventive measures of which we need to be aware? How do we protect against these risks? What types of food or drink should be avoided? Knowing the dangers and taking proper precautions can reduce risk to a manageable level. The University Health Service (UHS) has become a very valuable and reliable partner in this respect. Administering appropriate vaccinations in time,

understanding the locations, and type and quality of medical care available at nearby clinics, and securing medical insurance are examples of measures we take.

Eva Au is a Medical Officer at the University Health Service. For her, the primary focus is on ensuring that students and staff are well-prepared, health-wise, for engaging in Service-Learning, particularly in offshore projects in challenging environments. Dr Au and her UHS colleagues ensure that the staff and students receive proper advice, vaccinations, supplies, and other forms of health preparation, so as to ensure, as far as possible, that everyone stays safe. With many hundreds of students going on non-local Service-Learning projects each year, the workload is becoming heavier and heavier. Her team developed an e-Learning module to assist in getting students and staff prepared for challenging foreign travel. They are also instrumental in helping teams handle medical emergencies such as accidents and illnesses that occur while overseas.

Some countries are relatively stable most of the time, but not perhaps, for example, during sensitive periods such as around elections. Is the project site politically stable? What about the level of crime and lawlessness? These factors are beyond our control and any such threats are best avoided; perhaps we could still go but with projects scheduled to avoid sensitive periods. Understanding the local political situation, sensitive topics, and potential trouble spots can go some way to avoid our students and colleagues getting into trouble. One year, we had planned a project in Vietnam. Just months before the trip took place, tension arose between China and Vietnam, leading to a degree of anti-Chinese sentiment in Vietnam. Considering the potential risk in taking our students to Vietnam, we decided to divert the team to a site in Cambodia, carrying out a similar project. Much of what the students had prepared turned out to be applicable to the revised project. Being aware of such risks and having contingency plans is very necessary.

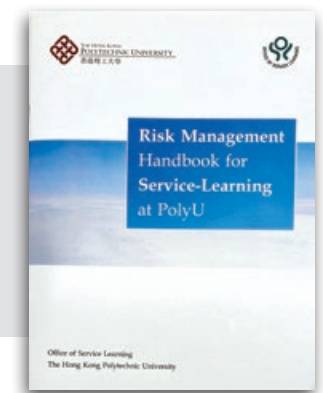
We, of course, always wish to do good. However, good intentions are not always sufficient to guarantee a satisfactory result. This is one of the areas where Service-Learning differs from many regular academic projects. Most projects assigned by professors for academic subjects are not intended to actually involve or impact real people and so there are generally no real consequences beyond impact on the students' grades. In Service-Learning, we deliver a product or service that is expected to be used by and impact the lives of real people-in-need - who are thus also vulnerable. If we build a shelter for the homeless, the shelter must be safe to live in. If we deliver food to the hungry, the food must be safe to eat. If we provide advice or counselling to the troubled, the advice must be sound. Both teachers and students must be aware of potential risks and do all they can to mitigate these, in good faith.

Students can and will sometimes misbehave. They are, of course, responsible for their actions and the consequences. In a Service-Learning setting, however, their misbehaviour can have serious consequences for the whole team and the community that they serve. Students who get involved with alcohol or drugs, for example, can cause serious damage to themselves and other people around them in a foreign, unfamiliar country. It is important to be aware of the general environment and the security situation around the service site, and for all participants to exercise proper discipline. Many teams forbid the use of alcohol or drugs for the duration of an offshore trip. It is also important to identify potential risks in interacting with groups that are particularly vulnerable: such as the elderly, the mentally challenged, and young children.

Most projects involve investment by both the students and the community they serve. It is a contract whereby both parties are committed to deliver their end of the bargain. There was one situation in an African country involving a team from a prestigious American university. The American university had proposed installing a solar-powered electrical pump and piping system that would pump water from a lake to a site a kilometre away on higher ground, for use by a village. The Americans had designed and built the pump, dismantled it, and shipped it to the site. They planned to purchase the pipes locally. They had requested the local village to dig a trench for the piping system. The trench was duly dug - we witnessed it. However, the pump was shipped too late and failed to arrive during the time the team was in the country.

The American team left behind an empty trench without a piping system, pump, or water. It is the responsibility of the team to be fully aware of the risks of failure, the consequences of such failure, and to do all we can to ensure that we do not take undue risks that neither we, nor our partners, can afford.

Figure 3-7. A Risk Management Handbook was developed to assist Service-Learning teachers in development of risk management plans for their subjects and associated projects. It includes practical tools such as a Risk Management Checklist, which can be used to conduct a comprehensive risk management assessment on projects. Approval of the risk management plan is required before a Service-Learning subject can be offered to students.



We cannot possibly foresee all risks, and accidents do happen, but the burden is on us to do our best to anticipate possible risks. For this purpose, the OSL has developed a Risk Management Checklist, to assist project teams in anticipating and planning for contingencies. There are contingency plans in place and we always notify the local Chinese Embassy prior to undertaking a project in a foreign country.

Funding

Quality education can be expensive. Like most other universities that take Service-Learning seriously, PolyU recognised early on that financing has to be efficiently managed. The cost of offering a large number of academic Service-Learning subjects has to be assessed and covered. These costs may include professors' time and that of teaching assistants, equipment, materials and consumables, transportation and accommodation costs, insurance, and administrative fees payable to collaborating organisations.

When the decision was made by Senate to introduce compulsory, credit-bearing Service-Learning subjects, the issue of financing was not explicitly discussed. However, a large commitment was, implicitly, understood to have been made to finance these subjects. Service-Learning subjects are regular academic subjects; hence it is reasonable that they be financed in the same way as other general education academic subjects at PolyU. In fact, it was recognised early on that Service-Learning, as a form of experiential learning, would be bound to incur additional costs, beyond those of classroom teaching. Service-Learning subjects are funded at a premium of roughly 1/3rd above other general education academic subjects. One Service-Learning subject carries three credits, out of 120 credits required for undergraduate graduation, and so the funding for Service-Learning can be estimated to be roughly 2.5% of the recurring costs for undergraduate programmes.

From the operation of the Service-Learning programmes over the years, the level of funding has been seen to be sufficient to cover the operation of most subjects. In some cases, however, there is the need for additional funding beyond the regular provision. For example, some projects may require the organisation of large-scale public events, such as the exhibition of special fashion designs produced by the recovering mental patients as rehabilitation, competitions, or a finale event for instruction-based projects for primary or secondary school students. Some technology-based projects may require the purchase or development of special equipment or tools, such as virtual reality, augmented reality, solar panels, sensors, and the like. In the early days of the Service-Learning Programme, we started to solicit financial support from donors, including alumni, philanthropists, foundations, and corporations, who share our vision. For example, JPMorgan Chase Foundation was one of our major early supporters. They made a number of generous donations for piloting various subjects both locally in Hong Kong and beyond, starting with a set of projects aiming to help revitalise Sham Shui Po, one of the poorest districts in the heart of Hong Kong. Subsequently, we have also received generous donations from the Chinese Manufacturer's Association of Hong Kong, the Hong Kong Jockey Club, and other prominent organisations. We are forever grateful for these early supporters, whose support helped to establish Service-Learning on a strong footing.

Offshore projects are particularly desirable for us at PolyU. Hong Kong is a

small place with a largely homogenous population, with 92% of the population being ethnic Chinese. Our economy has long been driven by foreign trade and globalisation. Our students particularly benefit when they can participate in offshore projects, where they can experience ethnic and other forms of diversity first-hand, and gain invaluable global competence. Offshore projects, however, generally incur significant transportation and other costs.

Some offshore Service-Learning projects can tap into funding ear-marked for specific purposes, such as internationalisation, which can be available internally within the University, or from governmental and other sources. Service-Learning projects in the areas of public health, and social assistance can also tap into various specific funding sources. Gradually, the University has also come to recognise the importance of social responsibility as a graduate attribute and OSL has been allocated strategic funding for this purpose. OSL has also been working closely with the University's Alumni Office to solicit donations from alumni and other individuals and organisations, which has proven to be a very valuable source of funding for Service-Learning.

Irene Chan works in the Alumni Affairs and Development Office (AADO) and has been instrumental in acquainting PolyU alumni with Service-Learning. Irene and colleagues at AADO secured a number of significant donations from multiple sources to support Service-Learning projects and initiatives. These include funding for scholarships for students as well as support for projects in Hong Kong and, importantly, for non-local sites.

Tit-sing Wong is an alumnus of PolyU in mechanical engineering and successful industrialist. Long-time supporter and donor for Service-Learning, his financial contributions to international Service-Learning were particularly critical in the early days of the programme, when we were building up projects in countries such as Rwanda. Ir Dr Wong's donations have few strings attached, other than those related to ensuring genuine benefits for the students,

with whom he enjoys listening and speaking. We are forever grateful to Ir Dr Wong for his generosity, persistence, and trust.

Driving Forward

The previous sections have elaborated on some of the basic tasks critical to the implementation of the PolyU Service-Learning programme, without which the programme probably could not have been launched successfully. Our objective, however, was not merely to have the students fulfil the Service-Learning Requirement. There are also a wide range of tasks, some of which may not be obvious at the outset, but are nevertheless critical to the healthy development of Service-Learning at a university.

One of the most important questions that we must answer is this: having invested so much energy, resources, time, and money into creating the Service-Learning programme, does it actually achieve its intended objectives for the University? To answer that question, much evaluation and research has been conducted, and more is ongoing. We are also interested in topics such as identifying the critical success factors for Service-Learning, its impact on the community and on the teachers, what motivates the teachers, and how Service-Learning relates to academic studies in general, and specific disciplines in particular.

Since we started with little experience and expertise, our first efforts were naturally modest in rigour, scope, and impact. We aim to continually improve in all aspects. OSL has been at the centre of the push to develop new subjects, improve existing subjects, train teachers, create new and more effective pedagogies, deepen the impact on all stakeholders, create collaboration with foreign universities, create world-wide alliances, conduct innovative research to inform our own practice and to contribute to the worldwide community, and leverage Service-Learning to achieve other institutional objectives such as leadership education and global engagement. In short, we aim at nothing less than becoming a worldwide Centre of Excellence in Service-Learning. †

Chapter 4

The First Cohort of Service-Learning Students

In September 2012, the first cohort of students for the new four-year undergraduate programmes entered PolyU. These were students who had just completed grade 12, around 18 years old. At the same time, the last cohort of students for the old three-year undergraduate programmes also entered PolyU. These were the students who had just completed grade 13 (aged 19), the grade which would cease to exist under the new Hong Kong curriculum. From 2012-2015, there were actually two cohorts of students studying side-by-side at PolyU. Only the students in the four-year (4Y) undergraduate programmes were required to take Service-Learning courses. However, this was still a large number of students who needed to take Service-Learning subjects.

By the time the first 4Y cohort entered PolyU, we had already acquired some experience in teaching Service-Learning subjects through piloting but we were still only able to offer a small number of courses. Fortunately, in the first year, the number of students who wished to take their Service-Learning subject was not large, partly because it was a new venture. That gave us some time to develop more subjects. The subject piloting and training of academic staff had apparently been successful. We learnt a lot of very useful practices from other universities, particularly from those in the USA who had considerable experience of Service-Learning, and so we were able to develop quite a large number of subjects in a short period of time. We were also able to offer some large-size subjects – a relatively new approach to teaching Service-Learning.

4.1 2,400 Service-Learning students per year

Since around 2,400 students are admitted to the four-year PolyU undergraduate

programmes each year, and each cohort is required to take at least one Service-Learning subject for graduation, it is expected that, on average, 2,400 students will be taking Service-Learning subjects each year – out of the 9,600 (2,400x 4) enrolled in the four-year undergraduate programmes annually.¹

In the first year of operations, however, only one cohort of 2,400 was admitted, and only some of the students were likely to take Service-Learning in their first year of studies. During their first year, “freshmen” have many matters that demand their attention. They must adjust to the teaching methods at university, which in Hong Kong are quite different from those of the regular secondary schools. They also have to quickly learn about their discipline of study and decide on a study pattern. In addition, many of them must strengthen their basic language and mathematics skills to be prepared for the rigorous academic studies to follow. Thus, we do not expect many students to take Service-Learning in their first or even the second semesters of the first year of their university life.

On the other hand, when students are in their final year, many of them have a heavy workload, including possibly making up for failed subjects, completing a capstone project, preparing for graduate studies, and looking for a job. Hence it is not very desirable for them to also have to take a Service-Learning subject, which can be quite demanding of their attention, energy, and emotions. We expected that there was a higher probability that students would take Service-Learning subjects during the period ranging from their first summer, to their second year, third year, or third summer. Our experience since then has largely validated that expectation.

Given these assumptions, although the number of students expected to take Service-Learning subjects in 2012-2013 was much smaller than 2,400, perhaps no more than a few hundred, that breathing space would not last very long. Certainly, by 2016, we would need to offer more or less a full range of Service-Learning

¹ Note: The number of students taking Service-Learning would soon increase from 2,400 to 4,000 each year. This is because students admitted to the senior years, as well as students admitted into two-year top-up degree programmes would soon also be required to take Service-Learning. But we are jumping ahead a little - more on that later.

subjects, with the capacity to handle 2,400 students (subsequently revised upwards to 4,000, as explained later). In 2012-2013, in the first year that PolyU started to require students to take Service-Learning subjects, we ended up offering six Service-Learning subjects to a total of 189 students.

4.2 Lessons from Piloting

In the meantime, the development and piloting of Service-Learning subjects continued. By the end of 2012, 24 Service-Learning subject proposals had been approved, the result of very hard work by OSL and SCSLS. However, many had not yet been offered.

Some of these subjects had been piloted by offering them as elective general education subjects for the students in the three-year undergraduate programmes. This helped to build up valuable experience in developing and offering Service-Learning subjects. As explained in previous chapters, Service-Learning was new to PolyU, and these subjects proved much more challenging to offer than most regular academic subjects. Not only does a project need to be designed to serve a target community in real need, but also the possibility of risks, as well as arrangements regarding travel, equipment, materials, and consumables need to be taken into account. We need to ensure that proposals are practical before they are officially launched.

As noted in previous chapters, the piloting process started in the summer of 2011 and ended at the end of the 2012/13 academic year. By that point, the Service-Learning Requirement for the four-year programmes had already been implemented and we needed to concentrate our efforts on operationalising the Requirement in the four-year programmes. The piloting had fulfilled its historical mission – to test the design of the Service-Learning subjects. Through the piloting, we had learned many valuable lessons, which helped us refine the relevant procedures and vetting criteria, training of teachers, and quality control. Some of the most important lessons included:

- The Service-Learning programme works: Based on the guidelines and procedures developed, many Service-Learning subjects had been developed, vetted, and successfully piloted. Even though students on the three-year undergraduate programmes had not been required to take Service-Learning subjects, when the subjects were offered as elective general education subjects, students enrolled enthusiastically. Teaching was delivered according to the syllabus, partners were found, communities served, and assessments conducted smoothly. The successful piloting gave us the confidence to launch the Service-Learning Requirement formally in 2012.
- The importance of the teachers, in particular their experience and attitude towards Service-Learning: Perhaps more than most other academic subjects, Service-Learning is more about attitude than skills. The person who delivers the teaching carries much more weight in the process. Imagine a self-absorbed professor trying to teach students to be empathetic. It just doesn't work, with students seeing through the inconsistency very quickly. On the other hand, a passionate, socially-engaged professor can make the same syllabus come alive, creating a life-changing experience for the students. Hence the Sub-committee vetting the proposals always puts heavy emphasis on the experience and other indicators of a teacher's commitment to Service-Learning.
- The importance of risk management: Service-Learning tackles real-world problems with real consequences for vulnerable people. It is critical to anticipate possible risks to the vulnerable community as well as to our students, and the consequences of failure to deliver the expected service. The experience gained through piloting helped us develop a check list and procedures to help subject teachers manage risk. The procedures are still continually reviewed and refined.
- Balancing service and learning is a serious but manageable challenge: It is very easy to stress either the service or academic learning too much, thereby unbalancing a subject. The piloting experience helped us understand how a written syllabus turns into practical teaching, service, and learning. Consequently, it helped us anticipate how a written syllabus might be realised. It is not an exact science. However, the experience at least helped us predict what type of syllabus has a better chance of being successful.

Our story will now focus on the first set of subjects offered on the four-year undergraduate programmes, in the first year of operation, with a cohort of 189 students. In time, this modest beginning would grow into the distinguishing characteristic of education at PolyU, of which we are now so proud.

Cantonese as a Second Language

A Caucasian Teaching Chinese Students to Teach Cantonese to Refugees as a Second Language.

The vast majority (92%) of the population of Hong Kong are ethnic Chinese, speaking either Cantonese and/or Mandarin (Putonghua). There remains a comparatively small but still quite sizeable number of people who do not speak Chinese, which makes life difficult for them. These include expatriates, ethnic minorities, foreign domestic workers, and refugees/asylum seekers. Expatriates are typically professionals, well-educated, who can generally take care of themselves. Many ethnic minorities who grow up in Hong Kong do speak Cantonese, or at least have opportunities to learn it. Foreign domestic workers are often not well-educated and typically paid a low wage, but they at least have a job.

Refugees and asylum seekers are in the direst situation. They are not allowed to work and for a long time their children were not even able to receive an education. A colleague from the Department of Chinese and Bilingual Studies designed a Service-Learning subject to help make their stay in Hong Kong more tolerable, by helping them to speak Cantonese. Why is there such a need? Who are these people? Why are these people here in Hong Kong? What difficulties do they encounter? How does the lack of proficiency in Cantonese affect them? How does one help them overcome these difficulties? How can we understand them better, and make their lives more tolerable? What can we learn about social justice through this experience? These are obvious questions that the subject can help address.

The fact that this subject was proposed and taught by a Caucasian American, Dr John Wakefield, is an indication of the complexity of globalisation. Most Americans are not surprised when they encounter a Chinese-looking person speaking perfect English in America; they may assume that this person is ethnic Chinese but born in America, which is increasingly common. However, they may be surprised when they find out that this Chinese-looking person came recently from Hong Kong. On the other hand, many people anywhere in the world, including Hong Kong, would probably be surprised to find a Caucasian-looking person speaking perfect Cantonese, even if they know that this person had been living in Hong Kong for a long time. Why is there such a big difference in expectations? Why is it that a Chinese person in America is expected to learn English, but a Caucasian in Hong Kong is not expected to learn Cantonese? What is the cause of this discrepancy? How does that affect the way we deal with such and similar situations? These are exactly the kinds of issues that we hope to tackle through international, cross-cultural Service-Learning subjects and projects.

The students attend and participate in lectures and workshops to prepare for their service, including the learning of the formal notations and methods for the pronunciation of Cantonese. Even though most are native speakers, most will never have learned Cantonese formally. Hence, the need for them to learn the formal concepts behind what, for most of them, has been internalised as their mother tongue. They then set out to design their own lessons and activities to teach the refugees Cantonese. The classes were set up through partnership with an NGO, Christian Action, whose centre is located in Chungking Mansions in Tsim Sha Tsui. During the lectures and workshops, the students were noticeably passive and lacking in enthusiasm, which initially really worried us. However, as soon as they started interacting with the refugees, they came alive, ending up doing more than what was originally planned and devising additional activities to engage with the refugees. The highlight was a presentation by the refugees to a group of students in one of the elite secondary schools in Hong Kong. The refugees were greatly moved by their reception at the secondary school and the efforts that our students had made to make the event happen. For their part, our students were obviously touched by their interaction with the refugees.

This phenomenon is to be repeated in many Service-Learning subjects. No matter how hard the teachers try to help the students understand that the preparations are needed so that they can carry out the service they are hoping to provide, students find it difficult to be motivated during the learning sessions. The teachers try different methods such as showing photographs and movies of the target communities, and inviting community representatives and experts to share, but nothing can be as powerful as real, authentic contact, through which the students make a real impact on people in genuine need. Such is the power of experiential education and particularly that of Service-Learning, when it is properly conducted.

A related phenomenon is that students often feel they have mastered the required knowledge and skills during the preparation phase. When they go into the field, however, they soon discover that the real world is much more complex than the classroom or laboratory. Many then realise they may not yet be fully ready to deal with the real world, and slowly come to appreciate the preparation that was required of them and are consequently motivated to work hard to meet the needs of the community. These are some of what we consider valuable “teachable moments”, which are difficult to reproduce in the classroom.

Youth Development for Migrant Children

Mainland China has been developing very rapidly for several decades. In 1980, 20% of the population lived in cities; forty years later, in 2020, that has increased to 60%. Many rural areas have been transformed into major conurbations. A huge number of people have moved from the countryside to the cities, some of them permanently, but many as migrant workers who do not have resident status and privileges in the city. This situation has resulted in a huge number of “left-behind” children who grow up in the care of relatives, rather than their own parents. Some parents bring along their children to the cities but even then these children may not receive proper care, with their parents being hard-pressed to earn a living for themselves as well as for relatives back home. Many children cannot attend regular

city schools and the schools that they end up attending are often insufficiently funded, poorly equipped, and understaffed.

Professor Daniel Shek, who will be introduced further in Chapter 5, and his team developed a Service-Learning subject that addresses the needs of this group within the context of adolescent development. It aims to enhance these underprivileged children's competence, resilience, and aspirations, sending teams to big cities such as Shanghai and Hangzhou for many years. Usually, the teams organise day camps, and music, dancing, science, English, and mathematics tutorial classes to build up the children's sense of achievement and further develop their potential. Many of these projects are partially funded by the Chinese Ministry of Education and the programme encourages exchange between university students from Hong Kong with those from the Mainland, with PolyU students typically collaborating with students from renowned Mainland universities. Our students also get to see and experience the changes in the country up close. On the one hand, rapid development has brought untold riches to many, as evidenced by the modernisation and wealth on display in coastal cities such as Shanghai and Hangzhou. On the other hand, the rapid development has incurred real human costs, as evidenced by the situation of the migrant workers and their children.

Hence, these Service-Learning projects in Mainland China achieve multiple purposes. On the one hand, our students learn social responsibility through addressing certain social needs on the Mainland. On the other hand, the collaboration enhances mutual understanding between the two sets of university students.

Duta Wacana, Indonesia

Indonesia is the world's largest island country, with 17,000 islands, but only the 14th largest by land area, at 1,904,569 square kilometres. It is the world's 4th most populous country, with 267 million people, and the most populous Muslim-majority country. Yet the number of Christians, at 11%, is greater than many Christian-

majority nations. It is also home to Borobudur, the world's largest Buddhist temple, built in the 9th century. Such is the fascinating diversity of Indonesia.

Duta Wacana Christian University (DWCU) is a university in Yogyakarta on Java Island, about 30 kilometres from Borobudur, and 300 kilometres southeast of Jakarta. The University operates a strong community service programme through which DWCU students spend months living and developing community projects in rural village communities around Yogyakarta each summer. In the summer of 2013, a team from PolyU went to Yogyakarta to work with the DMCU team as well as a team from the Australian National University (ANU).

The PolyU team was led by Mr Joseph Lam of the Department of Land Survey and Geographic Information, and supported by Ms Renee Leung of OSL. The team specialises in land and resource management. Their project involves mapping out water resources (in the form of rivers and lakes) and their quality in the vicinity of the village and surrounding areas, providing much needed information to assist the villagers in utilising their natural resources for development. We were informed that maps with such detail and information for the region did not exist previously.

During the project our students stay with the families in the village, sleeping in their houses, eating what they eat, and living as they do. It gives our students a most valuable experience. Not only is it radically different from the urban living that they are familiar with, it gives them an authentic taste of a foreign culture. Even though our students do not speak the local Javanese language and the villagers speak neither Chinese nor English, they can communicate through the Indonesian students from DWCU.

Through this project we experience many of the joys and challenges of working with partners in foreign countries. DWCU is strongly committed to and experienced in community service. They have very good connections to the local government and village leaders, paving and smoothing the way for our team to get to know the village and local needs quickly. DWCU can also make local transportation and accommodation arrangements for us, saving us a lot of work and uncertainty. With

such a strong partner, risks also become much more manageable, even though the place is strange and unfamiliar.

However, the fact that DWCU has much experience and mature programme also poses challenges for us. Their programme requires their students to stay in a village for two months, with hundreds of students spread over some 20 teams scattered over many villages. They would like our students' activity to mirror theirs as much as possible, in terms of duration of stay, geographical spread over the many villages, nature of work, and so on. However, our team has only 20 students, and our schedule is such that we can only stay for about two weeks. Even lengthy and rigorous negotiations could not create a result that was completely satisfactory for both sides. Our programme is also a credit-bearing subject with specific learning objectives and assessment with real impact on our students' academic records. DWCU's programme is differently structured, which created different expectations and different working styles between the two sets of students. To add to the complexity, at the time when the first project was underway, there was also a small team of graduate anthropology students from ANU, conducting field study in the community.

Despite all the challenges, that first project was a success. Our students had a very fruitful and enjoyable experience. They achieved their objectives in mapping out valuable water resources for the villages. Their maps, proposals, presentations, and the talks that they arranged for the villages were highly appreciated. They collaborated with their fellow Indonesian students and interacted with the Australians. They learned much about different cultures and ways of life and found the overall experience highly satisfying. We found DWCU to be a great partner and we have been collaborating with them ever since.

On the first service project trip to Indonesia, there was an incident that exemplifies very well some of the challenges posed by international service-learning. OSL sent a colleague to work with Mr Joseph Lam in leading the student team. Just a few days after the team arrived on site in Indonesia, the OSL staff member had to return to Hong Kong due to an urgent family matter. Immediately, OSL sent

another colleague, Ms Renee Leung, to Indonesia to take their place and the project continued successfully. Ms Leung went on to support many other teams and projects and remains with the Office to this day. This incident vividly demonstrates the importance of having a strong support team which is knowledgeable, experienced, adaptable, and, ultimately, dedicated.

Coming to Rwanda

In the summer of 2013, we took a team to Rwanda for the first time. The germination of our first African project was actually several years earlier. We broke out of Hong Kong, taking a team to Mainland China in 2006. With planning starting in 2009, we took the first team out of Greater China to Cambodia in 2010. At roughly the same time, we developed a plan for a project in Uganda, but could not find the necessary funding to turn it into reality, and so ended up having to apologise to our partner. Unexpectedly, around 2012, we were offered funding from University senior management for an internationalisation project targeting Africa. We quickly found a potential partner in the NGO African Enterprise. The initial idea was to start a project in Malawi. After some discussions, African Enterprise suggested Rwanda instead and we agreed.

Why were we so keen to go to Africa? Firstly, we had learned from our own experiences as well as those of others that we can make a greater impact where the need is greater; and, in general, the need in Africa is greater than on most other continents. This is particularly true in sub-Saharan Africa, where many of the poorest countries in the world are. Secondly, students also learn more where the cross-cultural challenge is greater; and the people and culture in Africa differ from ours arguably more than in most other places in the world. Many Asian countries have strong cultural links with China, while European and American influences are strong in Hong Kong. Thus, there is some degree of familiarity with these continents, which cannot be said about most of Africa. Unfortunately, Africa is also far away, imposing considerable financial and logistical costs. Many countries in sub-Saharan Africa are also politically volatile.



Figure 4-1. A typical meal for our students in Rwanda – vegetables, beans, pumpkin, a piece of meat or fish, and a piece of fruit. Much of the local diet consists of plantain, starchy roots (potatoes, cassava, ...), beans and grain (millet, sorghum, rice, ...). Green vegetables, meat and fruits tend to be a luxury.

Rwanda offers much by way of very pertinent lessons. It is really as poor as one can imagine, does not have many natural resources, and has suffered much from colonisation. In 1994, it endured a horrific genocide in which 800,000 people died within 100 days, while the whole world watched. However, it has also been politically stable since around the year 2000. The government is relatively free of corruption, running the economy fairly effectively, keeping the country physically clean and safe, and consequently enjoying the confidence of many of its people. The government has also, with much success, embarked on a route of reconciliation to move on from the genocide. It makes us wonder how it has achieved so much and what we can learn from this. Perhaps most importantly, in African Evangelistic Enterprise – Rwanda (AEE Rwanda) we found a great partner. Their core strategy is to organise thousands of self-help groups, train the members of the groups in basic business skills, and start small businesses.

After many months of studies, negotiations, and preparation, we took 20 students to Kigali, the capital of Rwanda, via Doha in Qatar and Entebbe in Uganda. To save on costs, we endured a 10-hour layover at the old, freezingly-cold airport at Doha going and coming back. We had along with us Professor Walter Yuen, who activated the whole Service-Learning enterprise when he was VP(AD) in 2010. When our plane flew over the Arabian Peninsula, crossed the Red Sea, and then flew over Ethiopia on the way to Uganda, it was an almost spiritual moment for us. Ethiopia is said to be where modern humans originated, perhaps often perceived to be mysterious, at least slightly

dangerous, and full of excitement. Entebbe, the brief stop in Uganda, is famous for the daring rescue by Israeli commandos of hostages on an Air France airplane hijacked by Palestinian terrorists in 1976. It is yet another connection to momentous global events. Flying over the as-big-as-an-ocean Lake Victoria was another dramatic moment. Our first trip to Rwanda opened another chapter in our Service-Learning adventure.

John Kalenzi is Team Leader of African Evangelistic Enterprise Rwanda (AEE Rwanda) and a key collaborator in many tremendously impactful projects in Rwanda. Tirelessly running a great organisation with projects all over the country, yet John puts great effort into helping us connect with communities, identify needs and develop solutions, negotiate with government and customs, and navigate myriad procedures so that projects can proceed. John and his wonderful team provide invaluable practical advice based on their intimate knowledge of the country and a wealth of experience in project strategy. In addition to finding suitable project sites and communities, safe and convenient accommodation, and overseeing the logistics of transporting teams and equipment, John has also introduced us to many collaborators. Hugely instrumental in helping PolyU to set up projects in Tanzania, he has been a true friend of PolyU Service-Learning.

The Teacher is not an Overhead

As soon as we landed in Rwanda in July 2013, we tried to learn as much as possible about what Rwanda is really like, how AEE Rwanda operates, how our planned projects could be carried out, how much could we realistically achieve given the circumstances, where might we purchase necessary supplies, how we would travel to the project site, and so on. We asked many of these questions

beforehand and had received some information and photos, but it was difficult to plan down to the level of detail that was really needed for our operation on the ground. This was partly due to the poor telephone links and internet connections between Rwanda and Hong Kong, but also because of the fundamental differences between our perceptions and understanding of each other, and what each of us wanted from the collaboration. For example, we did not really know the condition of the guest house where we would be staying for the duration of the project. It turned out to be perfect for our needs – basic, but clean and quiet, with plenty of space to work; but we could not be sure of that before we arrived, because there was so little information available on the internet. Within hours of arriving in the country, we learned so much about life in Rwanda just by walking around the neighbourhood and visiting the local market.

We did not send an advance team for a pre-visit ahead of the actual project. This was mainly because of the very considerable travel-related costs, not just in terms of money, but also time and the logistics. Partly the result of our desire to reduce the cost of the plane ticket, our flight time alone is at least 16 hours, with a layover lasting as long as 12 hours. Including local ground transport, travel one way can last up to 28 hours. In spite of the lack of a pre-visit to gain first-hand knowledge and direct negotiations, everything worked out well. AEE Rwanda is such a wonderful, accommodating, resourceful, well-connected, and experienced partner. Our team of students were exceptionally capable and had a great attitude. Above all we had been fortunate. However, a lot of things could have gone wrong and caused the project to fail or some disaster to befall it and we vowed it was a risk that we would never take again. From then on, a pre-visit to learn about the site, partners, transportation, provisions, and risks, together with face-to-face meetings to take the measure of our local partner and let them get to know us, must be conducted for any new site or new project. We have a responsibility to the students as well as the University to make the project as successful and as risk-free as possible.

This lack of a pre-visit and subsequent commitment to making one an integral part of project preparation is part of a broader lesson that we have learned and a fundamental change in our understanding of what Service-Learning is about. For

a long time, Service-Learning has been considered something that the students do and that they are therefore the focus of attention. The teachers, teaching assistants, and infrastructure are all there to facilitate the students' work. That teachers and assistants are "overheads" that should be minimised remains the perception of many people involved with Service-Learning, including, very importantly, many funders and administrators.

We have gradually realised that this picture is far from complete and can be quite damaging. Part of the reason that we did not send one or two colleagues to Rwanda to scout out the site and make preparations is because we wanted to save money, so that we could spend as much of the funding we had secured as possible on the students' expenses, rather than those of the staff. Skipping the pre-visit by staff would make it possible to send more students on the actual project. That is, in fact, what many donors demand and continue to demand, often willing to fund the students' expenses but not so readily those of the staff.

However, we have learnt again and again, that the pre-visit by the teaching team is critical to the success of the actual project undertaken by the students. Without local knowledge and careful preparation, we may be taking too much risk in many aspects: whether the need is really there, whether the proposed solution is appropriate and feasible, whether the partners truly understand what we are planning to do, whether the site is safe, and whether the students are adequately and appropriately prepared. We also need to send appropriate staff members to accompany the students, to guide them in identifying the need and the solution, to teach the students just-in-time when they most need it and appreciate it, and to help them reflect on their experiences when they are fresh and the feelings raw. The pre-visit, the teacher, the teaching assistants, and their efforts should not be considered as simply "overheads". These are necessary and central to the success of the Service-Learning subject undertaken by the students for their learning. Students do not automatically learn from their experiences, otherwise there would be no need for them to attend structured teaching pre-project. In fact, the professors are key to the initial success, continuity, continued improvement, and overall sustainability of the programme. They carry the spirit and vision of the programme. While students come and go, it is the teachers and other staff who stay and fly the flag.

Computer Laboratory for the Center of Champions at Rwamagana

AEE Rwanda runs a school, the Center for Champions, in Rwamagana, about an hour's drive east of Kigali. It has 500 students in its primary school for street children. Some of these “children” however are in their 20s, yet have not been schooled, often due to the upheaval following the country's genocide. The school runs a fast-track primary curriculum in which students complete the six-year primary curriculum in three years. It had designated a room for a computer laboratory, but there were no computers when we arrived in 2013.

We raised funds among our friends and bought 10 computers for the laboratory, together with a server, a router, two network switches, and hundreds of meters of network cable. Because we had planned and prepared in great detail ahead of time, the computers and cables were physically set up within an hour. We had a connection diagram prepared and put it up on the board as soon as we started, and everybody knew what to do. We set up an e-library of hundreds of useful e-books, collected and written in Hong Kong, on the server. All we had to do was to install them on the server. Now the school can teach using its own local area network (LAN), even though it has no access to the internet (which was too expensive at the time).²

² In 2013, internet service in Rwanda was very expensive and SIM cards were practically impossible to buy. The situation has improved tremendously since then. By 2020, SIM cards were fairly inexpensive and affordable. However, coverage is still weak or non-existent in many places outside the main cities, and therein lies many important lessons for Service-Learning. We needed one type of solution for Rwanda in 2013 which did not depend on the internet. In 2020, we could employ solutions that can work with weak coverage. We really need intimate and relevant knowledge of local needs in order to develop appropriate solutions for the local context. We also have to evolve as the local situation evolves – what works one day may not work the following day and be irrelevant by the third. Knowing the history and having a long term relationship certainly helps. This is all partly why we work so hard to cultivate a long term relationship with partners and work on a site for a long time.



Figure 4-2.

(a) Setting up a computer laboratory for the Center for Champions, in Rwamagana, Rwanda, in 2013. The Center is a primary school for youths who missed out on education when they were younger and a vocational school for youths to learn practical life-skills. (b) Just as we finished installation, the power went out. Fortunately, we had brought with us a set of suitcase-sized LED+battery+solar panel gadgets which we developed for a project in Cambodia that same year. It confirmed to us the tremendous need for electrical power in Rwanda, and the suitability of the solar panel as a potential solution. The experience led directly to the solar panel projects we undertook in East Africa in the following years.

We ran three days of workshops for the approximately 10 teachers and 30 students. We taught the teachers basic computer network concepts, how to set up their own LAN, and how to make use of the resources in the e-library for teaching. We taught the students, many of whom had not touched a computer before, how to make and edit movies, as a way to teach them some common IT skills, and motivate them to learn. We seemed to have succeeded – many of them refused to leave the room, staying long after the class finished.

In the evening, after we had finished all the lessons and were cleaning up, the electrical power went out. Fortunately, we had come prepared. We quickly took out two solar power-charged LED packs so that we could continue to work. The brief-

case-sized solar panel pack consists of a solar panel, battery, and LED lights. They had been designed and assembled for use on another project in Cambodia just before we came to Rwanda.³

Both the principal of the school and the leaders of AEE Rwanda thanked us profusely and beseeched us to go back. It is gratifying to know that our efforts are appreciated and we returned to Rwanda every year until COVID-19 hit in 2020.

Effective Collaboration in Service

The first trip to Rwanda and our subsequent collaboration with AEE taught us much. First of all, we had heard that we would be going to a community centre for youths operated by the organisation, and that they wanted us to build a computer laboratory and run some computer classes for the children. This we would have been very happy to do, since we had had some relevant experience in other places such as Gansu in China and Cambodia. As time progressed, however, AEE Rwanda convinced us that we could make a greater contribution spending at least part of the time training their staff on using the internet, particularly social networks like Facebook, so that they could better serve the people of Rwanda. Once we arrived, there were other discoveries – their computer network was in such a poor state that our team spent several days fixing it and installing a Virtual Private Network (VPN). We also spent several days training their staff in using the VPN as well as the internet. As a result, using the network AEE Rwanda staff were then able to communicate over the whole country much more efficiently. For that AEE Rwanda was very grateful. They told us that other overseas teams usually brought them gifts of “things”; but we brought them people skills that they could use.

Through these experiences, we learnt that, to be really helpful, we have to be willing to listen, and to serve in ways that people really need. Of course, in order to

meet a real need, we have to have good, practical skills in the first place. We were very happy that we had brought to Rwanda students with both good skills and great attitude. We had to change their assignments so many times, often asking them to do things that they had not learnt before. They then had to improvise and learn quickly something that they had to do or teach the following day. Our students proved equal to the task!

We observed many vivid examples of what AEE Rwanda meant when they told us that sometimes the service provided by well-meaning people, often at great cost, did not actually address a real need. One day, we happened to pass by a computer laboratory of a local university, right next to the primary school where we were working. There were about 40 computers that had been set up neatly on clean and tidy work benches. For three days we did not see anyone using those computers, even though we passed by the laboratory many times. Those computers were donated by well-meaning overseas donors, but for some reason, they were not being used. Based on past experience, the most probable reason was that the university did not know how to make use of them; perhaps they did not have teachers who could teach computer classes. It was also possible that they were afraid the students might misuse or damage the computers. The sad thing was that, in a few years' time, the computers would still be brand new, but would have become obsolete and unusable. In the meantime, no one was benefiting from the computers provided at great cost.

AEE Rwanda believes that it is people who are the most important. They are very keen on helping people to set up cooperatives, learn to start small businesses, do the accounting, plant passion fruit, operate a public toilet, raise bees, set up a butcher's shop, build fish farms, and set up kindergartens. Their strategy is not to give the cooperatives a lot of money – AEE Rwanda does not have a lot of money to hand out anyway, but rather AEE trains them in the necessary skills to manage money and to run a business – something that is much more valuable in the long run.

AEE Rwanda has built up a strong network and cultivated a self-reliant and cooperative attitude.

³ In 2015, we would start switching to the installation of solar panels to generate electricity as a major project in Rwanda and elsewhere. We will cover that story elsewhere.





Figure 4-3. PolyU students joining a village community to build a house with baked-under-the-sun mudbricks. The house was built in 2013 by the community for a family of orphans, in Gikomero, roughly one hour's drive, much on mountainous dirt roads, north east of Kigali.

We can bring skills and technology that empower youths and other villagers, building on the foundation that AEE Rwanda has developed. This is proving to be a very successful partnership because we share the same values, yet each side is able to contribute something that the other side needs but does not have.

Self-Help – Toilet as Social Enterprise

We would not normally think of a toilet as a social enterprise but that is exactly what AEE Rwanda did with one of their self-help groups. AEE Rwanda's key strategy

is to help the local people to form self-help cooperatives. Each has 20 members, often all of them women. Each cooperative decides on businesses to be developed that match their skills and local needs. One of our first tasks in 2013 was to learn about the businesses, interview the members of the cooperatives, take photographs and videos, and publicise their stories through their website, promotional materials, and our own channels.

One such business was a fee-charging public toilet at the corner of a busy bus station/car park. Water is in short supply all over Rwanda and particularly in the mountains. The group paid to have pipes installed to deliver water to the toilet. Each customer is charged 100 Rwanda francs, which is roughly US 15 cents or HK\$ 1.20 – not cheap by Rwandan standards – but there seems to be sufficient demand at the bus station to make it profitable. By making water available, it is also helping to improve the general hygiene in the area. It really is a great example of a social enterprise and a public good.

The lady manager speaks with confidence and authority. She employs a man who collects the fees and does the chores. When our students interviewed her, she proudly told us that, in the past, women usually stay home and do not work outside, do not generate income, and have little economic power. Consequently, they have a very low social status. Now that she is gainfully employed, she enjoys a lot more independence and higher status in society.

This was a refrain that was heard over and over again. We were also told that there is a practical reason why the members of the cooperatives are generally women – women tend to be more loyal! Many of the men are easily distracted and do not manage to stay in the self-help group for long. Often we see groups of women meeting to discuss the business of their groups, learning business skills, and so on, while the men would be playing soccer or just sitting around.

We have also visited many other businesses operated by the self-help groups. There was a butcher's shop, pig farm, passion fruit farm, bee farm, and a farm with lots of chickens, goats, turkeys, and rabbits. Some of these businesses also benefit from support from other programmes which help them with skills, connections,

planning, and funding. However, the fundamental motif of a group of people coming together to help themselves and each other, learning new skills, building small businesses, and improving their own lives as well as others', is pervasive and tremendously uplifting.

Recovering from Genocide

Before we started our service in Rwanda in 2013, we visited several genocide memorial sites. One is the Kigali Genocide Memorial Center in the capital, the final resting place of 250,000 Rwandans killed in the genocide, but there are many such sites all over Rwanda. We went to two about an hour south of Kigali, the Nyamata Genocide Memorial and the Ntarama Genocide Memorial, both formerly Catholic churches. When the killings of Tutsis started in 1994, many people fled to churches, traditionally safe havens, and the churches opened their doors to them. Unfortunately, the churches could not protect them this time. At the two churches that we visited, thousands of people had been hiding inside when attackers threw petrol bombs and grenades, and broke through gates, doors, and walls. Thousands of people were killed in many of these churches. The total Rwandan death toll was estimated at 800,000 over three months, out of a population of around eight million at the time.

Other than the many preserved sites of killings all over the country, the Government buried 250,000 of the dead in a mass grave in Kigali and built the Kigali Memorial Center next to the graves. The museum presents the background and history, as well as acts of killing, torture, and many other acts of absolute horror. It also displays haunting photos of the faces of many victims - including numerous children. The lack of international attention and response to the genocide is truly shameful. The United Nations actually withdrew peace keeping troops from Rwanda when it was obvious what the attackers were doing.

At Ntarama, we found several small buildings made of mudbricks. The main sanctuary held perhaps a hundred people - this was a small rural church then.

There was a small kitchen the walls of which were breached during the massacre – one can easily walk in and out through the walls. Thousands of people sought sanctuary in the buildings and the grounds around them in 1994. All were killed.

Nyamata is one of the best preserved, and also the most disturbing. One can tell it was an important church because of its size. The sanctuary can easily hold hundreds of people, perhaps even more than a thousand when fully packed. The building is intact, other than for the bullet holes. The altar remains, with many artefacts that belonged to the victims upon it. There was an identity card which clearly identified the holder as a Tutsi. (The current identity cards no longer identify the ethnic group. Rwandans are encouraged to identify themselves only as Rwandans.) The sitting benches remain, with the clothes of the victims piled on them. The colours of the clothes have faded, of course – but the dark blood stains remain.

The most challenging experience is to walk down to the under chambers where the skulls and bones are stored, stacked on shelves from floor to ceiling. The passageways between shelves are no more than two feet apart – one can only walk between the shelves in single file, while the skulls and bones are no more than a foot from your face. The passageways are blind, so once at the end, one has to turn around and backtrack to exit. As teachers, we are often the ones leading the way – because the students would not know what to do and would often hesitate. When the group turns around at the end of the passageway, we would suddenly become the last in the line - with hundreds of skulls around and behind us. It is a deeply uncomfortable and disturbing experience. Yet we make ourselves go through it at least once each year and have been down there at least six or seven times by now. It is because we want our students to have that experience and we would feel bad if we were not there with them. At the end of the visit, we would sit down on the grass around the church, to share our feelings, answer questions, and discuss the meaning of what we had just experienced. Most of the students would be very quiet initially but gradually they would open up. Most of us have not faced evil so stark and overwhelming before. What does that tell us about us human beings? How would we feel if we were the victims? What caused people to do it? Are we capable

of such evil ourselves? Will we be able to resist the pressure to participate? What to do now? These are probably some of the most important lessons for us. We are emotionally touched at the time, which makes the lessons stick. That also makes it important to have experienced teachers to provide guidance and support.

The genocide was a planned event, many years in the making. It was not a terrible event incited by accidents and suddenly inflamed passion. For years, terrorists had been developing and promoting ideas that the Tutsi were bad people, not even human in fact. The image of cockroaches was ubiquitous. Lists of targets had been drawn up, and plans for their capture and murder were ready when the genocide was launched.

This is not an isolated act of evil. Just in the recent past, similar evil had been seen in Turkish Armenia, Nazi Germany, Soviet Russia, Nanjing during the Second World War, Communist China, Communist Cambodia, the former Yugoslavia, and many other places. Such is the evil that we human beings are capable of.

Fortunately for us human beings, there is also hope. There were many acts of courage during the genocide, some of which we heard about directly from the very people involved. The country has been recovering strongly and the emphasis now is not on retaliation but reconciliation. Many people coming to visit these memorials, bring flowers. We also laid some roses. Whenever we have taken our students to Rwanda since, we take our students to the genocide memorials, to make sure that our students know what happened, how it happened, why it happened, and what can be done to recover from such horror. We invite AEE Rwanda staff who work on the frontline of reconciliation, many of whom suffered terribly from the genocide themselves, having lost loved ones and family members, to share their stories and lessons with our students. We also hear how God's love can help many bitter enemies achieve reconciliation which would not otherwise be humanly impossible.

The Rwandan response to the genocide is one of the reasons why we have grown to love this country. They have suffered terribly yet they are responding not in bitterness and negativity, but rather in hope and positivity. They are poor materially, yet rich in character and attitude. On the one hand, we feel we can

contribute a little to their development; on the other hand, there is so much that we can learn from them.

One lesson we have learned is that evil such as witnessed during the genocide does not just happen out of the blue. There is always a cause. A long history of conflict, animosity, prejudice, and escalating conflict generally precede such evil. Relatively mild levels of conflict can also escalate gradually into unimaginable evil. The question we all must face is: do we have the courage to do the right thing in the face of such evil? What about intense animosity? Relatively mild situations of conflict? What does it take for us to get off the fence to act?

4.3 Learning Trip to the USA

In 2012, a small team visited several reputable universities in the USA experienced in Service-Learning, to learn from their experience. They were the University of San Francisco, University of Pennsylvania, and Tufts University. At the same time, we also wished to benchmark our very young programme against some of the best and most experienced.

The team was led by Professor Walter Yuen, VP(AD), Dr Stephen Chan, Head of OSL, Mrs Winnie Lee, Associate Head of OSL, and Dr Grace Ngai, Chair of the Subcommittee on Service-Learning Subjects. It was a very fruitful expedition. Among the major take-aways were the following:

- The objectives and structures of the PolyU Service-Learning subjects are in line with those of leading universities in the USA.
- Our programme is focused on Service-Learning while many leading universities have a broader scope - leaving us with a lot of room to grow.
- While each university has its own particular strengths, leading universities typically are strong both in local as well as international programmes.

- Leading universities typically have a central unit coordinating university-wide effort, while some also have centres with a specific foci.
- Leading universities have strong commitment from the university leadership.
- Successful programmes are underpinned by strong research.

University of San Francisco

In late April 2012, the team went to the University of San Francisco (USF) on the west coast of the USA. This was the home institution of Professor Dayle Smith, who gave us much help when we started building our programme. USF is a Jesuit Catholic university, which puts “socially responsible learning” in its mission statement, with “a culture of service” as one of its core values. It also says that “Central to a Jesuit education is the cultivation of community service, a passion for justice, and a life of faith.” Many Catholic universities in different countries across the world – North America, South America, Asia, and Europe – have similarly strong social engagement programmes.

At USF, a Service-Learning subject has been a graduation requirement since 2002. Service-Learning is compulsory and credit-bearing, similar to PolyU, but they started 10 years before we did. There is, therefore, much that we can learn from them. A USF subject designated as Service-Learning has the following five key components:

- service is mandatory
- there is connection between service and academics
- services benefit the community
- articulated reflection is an integral element
- assessment is conducted by faculty

These components of Service-Learning subjects at USF are similar to those at PolyU.

We met with several from the University’s leadership. We also visited the Leo T. McCarthy Center for Public Service and the Common Good, which opened its doors in 2002. It is the centre for programmes and scholarship supporting community engagement and public service at USF. It is located in the Provost’s Office and Division of Academic Affairs, reflecting its integral role in academia. It supports undergraduate and graduate programmes, provides Service-Learning

and government experiences for students, and generates publishable research. The Center has strong networks with community partners in San Francisco and the Bay area, and runs a wide range of activities for students, faculty and staff. In 2003, the “USF in DC” (Washington DC) programme was established which enables students to spend one semester in the US capital in full-time internships in government or non-profits. They also run international Service-Learning projects in foreign countries including Nicaragua, Uganda, India, Bolivia, and Argentina. While the McCarthy Center has a broader mandate than OSL at PolyU, there



Figure 4-4 Our team made a very fruitful learning trip to the USA in April 2012. At the University of San Francisco, we found a very creative yet systematic way to integrate rigorous academic discipline with impactful community service through Service-Learning.

are also many parallels between our respective modes of operation and the types of programmes organised.

We learned that the Rector himself, a Jesuit priest, as well as other members of the University leadership, would accompany students on international Service-Learning projects in Latin America, demonstrating the strong commitment of the University to Service-Learning and giving great encouragement to students and faculty. It also helps the leadership better understand the challenges and the joy involved. We took this lesson to heart. In 2014, the then president of PolyU, Professor Timothy Tong, went to Cambodia to work with students and the staff on several projects. In fact, many members of our University leadership have participated in Service-Learning projects in a variety of ways. Not only does that demonstrate University commitment to the programme, but also, more importantly, strengthens University-wide understanding, commitment, and support.

In the USF library, we were pleasantly surprised to find a painting of Matteo Ricci, one of the earliest and most famous Catholic Jesuit missionaries in China in the late Ming Dynasty in the late 1500s. It reflects the strong link between San Francisco and China.

University of Pennsylvania

Our next stop was the University of Pennsylvania (UPenn) at Philadelphia on the east coast of the USA. In 1985, four undergraduate students proposed an after-school programme at a local elementary school for their honours seminar class, an initiative which grew into the university-assisted community school. In 1992, the Center for Community Partnerships was formed to direct this effort. In 2007, the Center was renamed the Barbara and Edward Netter Center for Community Partnerships (Netter Center).

At the core of the Netter Center's work is Academically Based Community Service (ABCS). ABCS students and faculty work with West Philadelphia public

schools, communities of faith, and other community organisations to help address critical campus and community problems in a variety of areas such as the environment, health, the arts, and education. UPenn acts as an “anchor institution” in the efforts to improve their local communities and help solve significant urban problems. The Anchor Institutions Task Force is a network of 700 individual members promoting the engagement of anchor institutions.

To see first-hand how ABCS works, we were taken to a school just a few blocks from the UPenn campus in West Philadelphia, where UPenn students serve. This was the first time we had visited a school where students have to pass through metal detectors to enter! UPenn students served in various projects and roles in the school – for example, they might come as an intern to read to elementary students or assist the schoolteachers in preparing for lessons.

The PolyU team also visited the School of Engineering at UPenn which runs many impressive local and global Service-Learning programmes. A team from UPenn had been collaborating with a team from PolyU's Biomedical Engineering Department for several years, visiting southern China to serve handicapped children. The team would take measurements of the handicapped children, return to PolyU to design and manufacture orthotics devices in their laboratory at PolyU, and make a return trip to fit the devices for the children. On this visit, the PolyU team exchanged views with Associate Dean of Engineering, Joseph Sun, and explored possible further collaboration. Several years later a joint team was sent to Rwanda to work on an IT project. Joseph Sun remains a good friend and collaborator even after he left UPenn to go elsewhere.

It is at UPenn where we began to appreciate what seems to be a social science-applied science divide in the world of Service-Learning. UPenn is a big university, with four undergraduate schools, 12 graduate and professional schools, 4,000-plus staff and 22,000 students. The work centred around the Netter Center seemed to be mainly focused in the social science and humanities disciplines. At the same time, Engineering operated its own set of Service-Learning subjects and projects. Later, we observed a similar divide at other universities as well as at the cross-

university level. There are Service-Learning conferences that involve mainly social science and humanities, and there are also Service-Learning conferences that involve mainly engineering. At PolyU, however, we have learned from experience that there is much potential for cross-discipline synergy, and we are determined to bring multiple disciplines together for service in the same community. A real-world community's problems are usually multi-faceted: education, jobs, skills, health, and housing. Solutions, even for a single issue, often require multi-disciplinary skills. For example, to build a successful community learning centre may involve construction, IT, building services, teaching resources, public health promotion, financing, and of course training.

Tufts University

Tufts University (Tufts) is very different from PolyU as a university. PolyU, starting with our polytechnic heritage, has retained a strong applied science character, while Tufts, on the other hand, emphasises active citizenship and public service in all its disciplines, and is known for its internationalisation and study abroad programmes. We went there precisely because we wished to do better in these areas.

Our visit centred on the Jonathan M Tisch College of Civic Life (Tisch College). Tisch College studies and promotes the civic and political engagement of young people at Tufts University, in the community and in democracy. In 1954, Tufts created the Center for Civic Education, later renamed the Lincoln Filene Center for Citizenship and Public Affairs. In 2000, Tufts signed a Declaration of Purpose – which states “We dedicate ourselves ... to educate a new generation of committed and engaged citizens who will ensure that the American model of participatory democracy continues to flourish.” – and created the University College of Citizenship and Public Service. In 2006, thanks to extraordinary philanthropy from Jonathan Tisch, the University College was renamed the Jonathan M Tisch College of Citizenship and Public Service.

In 2002, Professor Robert Hollister was named the first Dean of the University College. In 2014, Alan D Solomont, former US Ambassador to Spain and Andorra, became Dean of Tisch College. Such is the stature of the Tisch College. Over the past two decades, Tisch College has grown into a vibrant platform for local and global partnerships, for myriad student learning and service opportunities, and for groundbreaking research.

Robert Hollister is currently Professor Emeritus at Tufts University. He was founding director of the Talloires Network, and one of the key persons in the establishment of the University Social Responsibility Network, led by PolyU. Professor Hollister has always been very encouraging, and provided invaluable advice. With his tremendous experience and vast network of connections in related fields, he has helped us make very valuable connections and take advantage of various opportunities to develop our programmes. He has since retired but we are forever grateful and have great respect for him.

While we were visiting Tufts, we also had an opportunity to listen to an inspirational speech by Professor Muhammad Yunus, founder of the Grameen Bank, pioneer of microcredit and microfinance, and recipient of the Nobel Peace Prize in 2006. Many years later, PolyU invited Professor Yunus to speak with our students at PolyU.

In 2005, Professor Hollister co-founded the Talloires Network, a global coalition that has grown to number 410 university presidents, vice-chancellors, and rectors in 79 countries who have publicly committed to strengthening the civic roles and social responsibilities of their institutions. It is the largest international network focused primarily on university civic engagement. One of the highlights of its work is its global conferences in different parts of the world (France, USA, Italy,

South Africa, and Mexico), with hundreds of university and student leaders coming together. It truly has a global reach.

Hong Kong is a small place with a relatively homogenous population, with few resources other than our people. We are highly cognisant of the need for international exposure to remain competitive in the global market. Hence, from the very beginning, we have strived to take our students out of Hong Kong to serve on international Service-Learning projects and collaborate with foreign universities and organisations. In 2014, PolyU led a coalition of 14 leading universities (including Tufts University) across six continents to establish the University Social Responsibility Network. †

Chapter 5

Explosion

The Service-Learning programme at PolyU grew slowly in the beginning. Much groundwork had to be laid and the guiding principles written. The academic infrastructures had to be built and subjects piloted and tested. Funding had to be secured and partners found. Support from major stakeholders had to be cultivated. Many people were sceptical and initially stayed on the sidelines. However, once the initial challenges were addressed and the first subjects successfully run, many jumped on board. The movement soon took off and we entered a period of rapid growth.

At the beginning of the programme, many people at the University, including many in senior management, did not have a very good understanding of Service-Learning, let alone how to introduce and manage it. We made great efforts getting our management, from department heads to deans to vice presidents to the President himself, involved, despite their heavy schedules. We invited them to speak with the students, to visit the students serving in the field, in and outside Hong Kong. That turned out to be very important in securing their understanding and support. OSL took the lead in helping staff to develop subjects, providing training to staff, developing new projects, securing funding, and helping with much of the teaching and support for the students, at least in the beginning. Importantly, we developed large Service-Learning classes to cope with the huge number of students.

5.1 University Leadership

When a PolyU contingent visited the University of San Francisco (USF) in April 2012, we noted that USF staff were very proud of the involvement of their Rector, a Jesuit priest - who accompanied students on service trips to Central and South America. It was, of course, a strong indication of the commitment of the University to Service-Learning. On the other hand, it also gives great encouragement to the students and staff. Taking the lesson to heart, we urged our University leadership to gain first-hand experience of what our students were experiencing in the field.

Professor Timothy Tong was the President of PolyU when service-learning was institutionalised, and has been an enthusiastic supporter. Among his many shows of support, his trip to visit the teams serving in Cambodia in 2014 made a particularly significant impact. Before his visit, we had already built up a strong presence in Cambodia. Several teams were on site around Phnom Penh in early June. Professor Tong went around visiting them and insisted on serving with them. It is one thing to read and listen to reports on campus. It is something else altogether to be holding charts to test the local children's colour blindness, playing "eagle and the chicken" with the local children, reading to the children in the classroom, eating with the students in spite of numerous flies in the local village, distributing supplies in the city's slums, listening to the students' sharing their experiences after a full day's hard work and sweating, and seeing the satisfaction of the students at their moment of success and the joy of the community who benefit. Since Professor Tong came back from Cambodia, his passion and conviction evident for all to see.



Figure 5-1. President of PolyU, Professor Timothy Tong, demonstrating the use of a microscope made with an iPad to pupils in a primary school on the outskirts of Phnom Penh in Cambodia, in June 2014.



Figure 5-2. Professor Tong mingling with primary school pupils in Cambodia in June 2014.

Figure 5-3. Together with Professor Tong, Mr Fong Ngai, visiting Service-Learning projects in Cambodia in June 2014. Mr Fong was then Director of the Hong Kong Economic and Trade Office (HKETO) in Singapore, and an alumnus of PolyU.



It is one thing to be cognitively convinced of something; but quite another to be emotionally invested. Cognitive buy-in is achievable with data and reasoning but personal experience is the only way to achieve affective response. Both are critical for whole-hearted commitment. We work very hard to educate the campus, including our leadership, on the merits of Service-Learning through academic argument, presentations, publicity, and discussions. We also work hard to facilitate our University leadership in acquiring that vital personal experience. In fact, we strive to do that for staff at all levels and involved in all aspects of campus life. We actively reach out to departments and other units, including the Offices of Finance, Personnel, and Campus Development, as well as the University health clinic. For Service-Learning to truly become a core value of the University, we need the buy-in and active support from all. What Service-Learning offers to all is an opportunity for personal enrichment as well as to play an active role in the core mission of a university.

Professor Philip Chan, Deputy President and Provost, was responsible for operational oversight of the Service-Learning programme. Over the years, he has officiated at many events. Before he retired, he helped us write social responsibility explicitly into the desired graduate attributes in the University's Strategic Plan.

Professor Walter Yuen, as Vice President (Academic Development), played a critical role in the development of Service-Learning at PolyU, as has been discussed in detail in Chapter 2.

Professor Hau-Chung Man, Dean of the Faculty of Engineering, accompanied the team on the first solar panel project in Rwanda in 2015, climbing up a ladder to teach the students how to install solar panels on the roof of a primary school. When we realised that we did not have the correct type of electrical cables for outdoor wiring, Prof. Man demonstrated problem-solving skills as a true engineer would. He went to a local hardware shop to buy plastic pipes and then taught the students how to use the pipes to protect the cables

we were in the hills and proper cables were simply not available. Naturally, he became a hero to the students.

Professor Angelina Yuen, Vice President (Institutional Advancement and Partnership, subsequently Student and Global Affairs), a social worker by training, has been a very strong supporter of Service-Learning, particularly of projects in Mainland China and in relation to international collaboration. She was the driver behind the establishment of the University Social Responsibility Network (USRN). She then secured funding for students from USRN member universities to participate in PolyU Service-Learning projects in Mainland China and Cambodia. She was instrumental in securing many major donations for Service-Learning. She also visited the students in the field in Cambodia, climbing to the top of a used container being converted into a community learning centre, to the cheers of the students and staff. She also led the effort in securing the Royal University of Phnom Penh, the top university in Cambodia, as a partner in a broad range of collaborations. She has provided much valuable advice on the overall direction of Service-Learning at PolyU.

Professor Daniel Shek, Associate Vice President (Undergraduate Programme), and Chair Professor in the Department of Applied Social Sciences, oversees the Office of Service-Learning (subsequently the Service-Learning and Leadership Office). He is an expert in youth development, with a wide range of expertise. He teaches several important Service-Learning subjects himself, taking students to serve in challenging environments in Hong Kong, Mainland China, and Vietnam. He has also conducted many research projects related to Service-Learning and published numerous papers on the topic. His team received the University Grants Committee Outstanding Teaching Award in 2018 for work related to Service-Learning, as well as many other prestigious international awards. He has overseen OSL and the offering of Service-Learning subjects from the very beginning of the programme.

Professor Chetwyn Chan, Associate Vice President (Learning and Teaching), visited the students in Cambodia as well as in Rwanda. He is a strong advocate of e-learning and encouraged us to develop e-learning tools with Service-Learning content.

Dr Miranda Lou, Executive Vice President, is also a strong supporter. She visited our Cambodia Service-Learning projects in 2019, working enthusiastically alongside the students on several tasks in the hot, humid, and dusty environment, in the process earning much respect from the students and staff. She has also participated in events related to Service-Learning in Mainland China and Hong Kong, becoming a strong ally.

Professor Esmond Mok, Dean of Students, accompanied the students to Rwanda in 2019. An engineer himself, he was able to provide practical advice to the students on their projects. In his capacity as Dean of Students, he has also facilitated much closer collaboration between SAO and OSL.

In the process of engaging the University leadership in Service-Learning, we face many questions and challenges, encountered at all levels from the operational to the existential. Why did you choose this project? Why did you choose to come to this site? In what way does it benefit our students? Why should we help this community? Is this subject really academic? Why can't this be left to the academic departments to do? Why do you do this? Why do you not do this? Why is it necessary to have an office of Service-Learning? We do not fear questions and challenges. They are opportunities to educate, convince, and draw people in. Our experience has taught us that the more people understand, the more people are convinced of the merits of Service-Learning as an effective pedagogy. Many people who were initially sceptical became ardent supporters and then went on to play important roles in the development of the programme. Institutional support and personal involvement from senior management is one of the key reasons for the success of Service-Learning at PolyU.

5.2 Heavy Work in Scaling Up

Ever since the University decided in 2010 to make Service-Learning a graduation requirement, we have been under severe pressure to develop a sufficient number of Service-Learning subjects (and places) for students. Based on our prior experience in organising Service-Learning projects and the practice at other leading universities, we expected initially that small classes would be more effective. Our previous student teams comprised 20 to 30 students each at most. We estimated that we could probably handle 40 students in one class. The limitation on class size was partly because intensive field work is required and in-field support and guidance are important for achieving good learning outcomes. These are not easy to scale up.

Since our initial target was the annual “first-year first degree” intake of 2,400 students from all the 4Y undergraduate programmes, we estimated that we would need a minimum of 60 subjects, with 70 subjects as a target in order to provide a buffer, in case student preferences did not nearly enough match the suite of subjects offered each year. The first 4Y cohort entered PolyU in 2012 and was expected to graduate in 2016. By 2016, we expected to have a full set of subjects in place and an average of 2,400 students taking Service-Learning subjects. That meant that, starting from around 2011, we would have to have developed an average of almost 20 new subjects each year to meet the demand. The pressure was on.

We had developed an alternate (Plan B) just in case we could not develop sufficient subjects for all the 2,400 students each year. Until we could develop sufficient capacity, we were prepared to allow the students to take a free elective subject, in lieu of the required Service-Learning subject. That was far from ideal. Service-Learning becomes practically optional, defeating one of the main purposes of the Service-Learning requirement. Once that option is made available, the urgency in developing Service-Learning subjects is greatly reduced, possibly making it even harder to achieve the programme goals. So, we decided to push full-steam ahead. Nevertheless, our senior management remained concerned and we were repeatedly asked whether we could really develop sufficient subjects.

The Sub-committee for Service-Learning Subjects (SCSLS), together with OSL, took a very pro-active approach. Calls for new subject proposals were made twice each year. SCSLS worked practically around the clock to process proposals, provide feedback and suggestions, and process re-submissions as quickly as possible. OSL ran numerous workshops on writing proposals, where colleagues could pose and receive answers to challenging but pertinent questions. We offered to take colleagues on Service-Learning projects for them to gain personal and practical experience, which would help give them the confidence to propose their own subjects. OSL, together with members of the Sub-committee, met with subject proposers and teams individually, to explain decisions and recommendations, and suggest revisions to subject syllabi, projects, partners, and all other aspects of the proposals. It was a period of very intensive and exciting growth for the programme.

Balancing Quantity with Quality

As seen above, from the beginning, there was intense pressure to develop a large number of new Service-Learning subjects and to increase capacity quickly. At the same time, there was also acute awareness of the need to maintain academic quality while offering impactful service projects. It is relatively easy, and thus tempting, to focus on quickly developing subjects that are mostly academic studies with a small element of community service – either indirect service or desk research. In fact, that is the path taken by some universities that wish to quickly implement Service-Learning on a large-scale. Some take an existing academic subject and add a small community service/study project, requiring only a few hours of work. Some ask the students to develop proposals without actually implementing the solutions. Some consider desk research as service, without requiring students to step outside the classroom and interact with the community to truly understand the issues and develop practical solutions. Some would consider the time spent in preparing for the actual service as part of the service itself – hence inflating the number of hours dedicated to the service project. Such subjects could be reasonably useful if the students are already experienced in community service. However, set against the lack of a culture of civic engagement in the education system in Hong Kong, it would not be very helpful in cultivating empathy, compassion, and civic

engagement. Pushing out many such subjects would turn Service-Learning into an intellectual exercise – where the “service” is in name but without achieving the spirit. It may even be quite damaging when the students delude themselves that they are socially engaged – when they are actually engaged in nothing more than an intellectual exercise. Astute educators and other observers will see through the ruse easily.

Academic studies may inform students cognitively of social needs; true compassion and commitment is much more effectively achieved through accompanying emotional investment. This is most effectively achieved through purposely arranged, extended and direct, person-to-person interaction. Hence effective Service-Learning requires a significant amount of time to be involved in personal interactions with the people in need. This in turn requires investment of time and effort from the students, investment from the instructors in setting up and monitoring projects, and investment from the University in the form of time and resources to enable that to happen. It is resource-intensive, but it is also most effective. We must resist the temptation of taking the easier way out.

Having decided to take the less travelled but ultimately more satisfying path, we have to provide strong encouragement and assistance to academic departments to come up with a sufficient number of quality Service-Learning subjects. Hence OSL assists subject proposers in writing viable proposals, particularly in relation to designing suitable projects and finding appropriate partners. Meanwhile, SCSLS works hard to provide detailed comments on the proposals received. Many proposals start out more simply like projects and the Sub-Committee assists proposers in strengthening the academic elements. Others are basically academic subjects requiring token service, so they have to encourage them to invest more in the service project. Based on these comments, OSL and SCSLS members meet with the proposers to assist them in revising the proposals. The process can cycle through several iterations before a proposal is accepted.

The process is so rigorous that one successful proposer was heard to remark that it was harder to get a Service-Learning subject proposal accepted than to secure a prestigious General Research Fund grant from the Research Grants Committee–

the Hong Kong governmental funding agency for research. While likely an exaggeration borne out of frustration, nevertheless the frustration is real. The actual success rate of Service-Learning subject proposals is quite high, compared to other general education subject proposals. However, while the Sub-committee seldom rejects a proposal outright as not suitable, it insists on trying to get the proposals as close to perfect as possible. It tries to identify elements that can be developed into a better subject and this feedback is provided back to the subject proposer as suggestions, resulting in an iterative process of comment-revision that oftentimes undergoes several rounds. Hence, there is a perception that the proposal process is difficult and arduous. As noted above, most of the time this process leads to success and most often subject proposers understand the rationale and value the feedback.

Rigour is necessary in establishing the academic quality and reputation of Service-Learning subjects. This insistence of academic quality is important, particularly in view of one of the major original objections to Service-Learning – that Service-Learning was not worthy of academic credit. It is gratifying to note that after the programme has been running for a number of years, this argument is now seldom heard. The positive results are clearly the result of the rigour of the subject development process, the impact on the students, the perception of other professors and senior management, support and commendations from stakeholders, and international benchmarking.

Large Service-Learning Classes Bring Diverse Challenges

An important strategy developed to deal with the large demand for student places is the development of large classes. The initial projection was for small Service-Learning classes with a maximum of 40 students each, because of the need for personal support and guidance on community service projects. It was gradually realised that larger classes could be achieved by engaging and training suitable teaching assistants to assist the subject lecturer in supervising the students. With

this arrangement, a subject can enrol 100 students or more, who are then divided into smaller groups to carry out the service projects. With this method, the average size of a Service-Learning subject can be increased to around 70, reducing the number of distinct subjects needed. Some departments would hire and train their own assistants, while others seek the help from OSL for staff to work alongside the subject teachers as teaching assistants, at least in the early stages until they build up their own capacity.

Large classes are more efficient in that they can provide many students with similar learning experiences. For example, the same type of project can be assigned to multiple teams of students, each serving a different group of clients. However, there are also inherent risks to guard against. There is the tendency to assign pre-designed, strictly circumscribed tasks, year after year, which clearly reduces the work needed in designing projects, standardises assessment, and makes it easier to support and monitor the students. On the other hand, of course, it is not nearly so challenging for the students and produces less desirable learning outcomes. Fortunately, however, we have found that it is possible to specify a common project framework for multiple project teams, and still allow sufficient room for student initiatives to make the projects challenging, impactful, and rewarding.

Cohorts from some subjects can more naturally be divided into teams that serve at different sites. For example, a Biomedical Engineering (BME) subject runs Science, Technology, Engineering and Mathematics (STEM) projects for under-resourced schools. They have multiple student teams serving multiple schools with similar projects. At the end of the project, they bring all the school children together for a single competition. It is a lot of fun and creates a large number of opportunities for the different schools to mingle. It is a big endeavour, accommodates a larger number of students, and is very rewarding.





Figure 5-4. STEM education as service – Teaching under-resourced primary school pupils to design and programme robots, in Hong Kong. Led by BME teachers, Dr Hin Chung Lau and his colleagues.

Some subjects take their different teams to various cities or countries. One English-teaching subject led by Ms Anna Ho of the English Language Centre sends its teams to teach in under-resourced schools in Mainland China, Taiwan, and Cambodia. The teaching content is similar for each but the target clients are very different in terms of culture, language, education system, and degree of poverty. The students must be trained in different ways and, in turn, develop different teaching and learning materials and teaching plans. For the teaching team, it is not that much different from teaching multiple smaller subjects. In fact, the professor often needs to organise different teams to teach the different teams of students serving in different countries. It is a big challenge but each teaching team is rewarded by the visible impact on our students and the community. Nevertheless, big subjects often need the support of OSL to make connections, organise the trips, and sometimes in training and supervising the students on site.

The toughest challenge is when different projects need to operate in different countries. For example, the Computing team has sent separate teams to Cambodia, Myanmar, and Rwanda. The Cambodia team set up community learning centres in converted cargo containers in villages in the countryside where there is often no

running water or electricity. The Myanmar team runs STEM workshops in schools and installs solar panels to generate electricity in rural villages. The Rwanda team installs solar panels to generate electricity for hundreds of households in villages on steep slopes in remote mountains. Each team operates in a different culture, language, and political, economic and geographical environment. Each project is different. It is more like three different subjects, although formally considered as only one. This is no doubt one of the most challenging setups that we have ever seen, but also, one of the most rewarding precisely because of the challenge, the desperate need, and the consequent impact.

There remain some concerns about whether large classes can achieve the same learning outcomes as smaller classes. We have been collecting and analysing relevant data to address those concerns. The question is not easy to answer as the impact of class size cannot be neatly separated from other factors such as the subject discipline, the type and location of service, and the experience and style of the instructor. Preliminary data however seem to indicate that large classes can achieve the same learning outcomes as those of smaller classes. One way to gain the advantage of small-class teaching in large classes is to arrange the students in smaller groups in which they are then guided to carry out the service projects. This way large classes are taught partly as small classes; but for this a strong team of teaching assistants is needed.

Chi Wai Do, Associate Professor of the School of Optometry, is one of the early practitioners of Service-Learning at PolyU, who was already active in the days of the Community Service-Learning Programme before 2010. Teacher of SO2S01 Learning through Providing Eye Care and Vision Health to the Community and SO4037 Public Health Optometry, he and his colleagues have been instrumental in sending many teams to numerous sites in Hong Kong, Mainland China, as well as foreign countries including Cambodia and Vietnam. Their teams have served a very large number of clients across a wide range of ages and backgrounds.

He also initiated research on developing eye testing applications for mobile phones, inspired by his experience in Service-Learning.



Figure 5-5.

Eye inspection in a village in An Giang Province in the Mekong Delta, Vietnam, June 2015. Eye tests are in very high demand in numerous communities across many developing countries where many adults have never had their eyes tested. Unlike Hong Kong, near-sightedness is often not a major issue but damage from strong sunlight and diseases such as cataracts are. Dr Do and his colleagues of the School of Optometry, including Dr Henry Chan, Dr Lily Chan, Dr Allen Cheong, and many others, have worked hard to take their teams to a very wide range of locations.

Anna Ho is Senior Lecturer and Associate Head of the English Language Centre, and a Member of the Sub-committee on Service-Learning Subjects. She is leader of a great team that developed a set of rigorous Service-Learning subjects, including ELC2S02 Serving the Community through Teaching English and ELC2S03 Persuasive Digital Storytelling: Small Charity Big Impacts and led many teams of students to provide high-quality and innovative language-related services in Hong Kong, and to Mainland China, Taiwan, Cambodia, and Vietnam. Anna has also assembled a strong production team that has been telling the impressive stories of many social enterprises across multiple countries.

OSL Taking the Lead in the Expansion

OSL was set up with a mandate to promote the development of Service-Learning at PolyU. This involves all aspects including subjects, projects, sites, partners, pedagogies, programmes, procedures, quality control mechanisms, alliances, strategies, validation, and research.

At PolyU, the actual offering of Service-Learning subjects, similar to that with other academic subjects, is the responsibility of the academic departments. OSL can collaborate with academic departments in the original development of the subjects and associated project. It can also collaborate with academic departments in offering these subjects, in the form, for example, of co-teaching or co-supervision of projects, particularly at the outset, to ensure that innovative and experimental practices are established successfully. However, following University regulations and principles, the Office cannot offer these subjects itself. Neither does it support the routine operation of Service-Learning classes for any extensive duration, because of limited resources. Based on this principle of division of work, while OSL does assist academic departments in designing and experimenting with different ways to

run large classes to meet the demand, it is simply not feasible for it to support the teaching of large classes in the long term.

In seeking the best learning opportunities for our students and optimum benefits for impacted communities, OSL continually strives to improve and innovate. It is always pursuing collaboration with academic departments or individual academic colleagues in experimenting with innovative pedagogy, new types of services, new partners, unexplored sites and countries, and new forms of partnership. On the other hand, it also recognises the benefits of long-term relationships with partners and communities which provide the platform and mutual trust for truly sustainable, impactful solutions.

Fortunately, innovation and long-term relationships are not mutually exclusive. A long-term sustainable relationship provides a solid platform upon which to innovate. There must be mutual trust before two parties feel secure enough to innovate. The more innovative the new initiative, the more risks there are generally involved; hence the stronger the mutual trust needed before the two sides feel secure enough to take the leap. Over many years, PolyU, through OSL, has built up a strong partnership with a number of organisations, particularly in Cambodia and Rwanda. These strong relationships enable us to continue to develop innovative projects – which in turn strengthen the relationship with these NGOs. Consequently, we can send multiple teams with a large number of students to the same country, even the same site, to carry out ambitious, challenging projects with confidence.

It is the routine, repeated execution of projects, once developed and stabilised, that OSL leaves to academic departments to support. There is room, indeed a need, for such projects – as long as the community continues to benefit from them – for the obvious reason that each year, there is a new generation of students enrolling in the same class. From the perspective of the new students, the project is new and challenging. This situation is like that of many academic subjects, the content of which may not change much from year to year. Academic departments are well-equipped to offer this type of subject and so OSL can concentrate on newer initiatives.

However, if teachers of an established subject wish to experiment with a new type of project, take students to a new site, engage a new community, or collaborate with an interesting new partner, OSL is happy to help with the development and implementation of innovative elements.

Community of Practice

At PolyU, as in many universities, Service-Learning subjects are academic courses offered by academic departments. Typically, each department offers only a small number, typically only one or two, of such courses. For the subject teachers, it may be difficult to find kindred spirits in the same department, with whom one can brainstorm, cooperate, share resources and contacts, compete, or simply commiserate. This is particularly challenging for those who are just starting to implement Service-Learning. People with common interests may exist in other departments but their paths do not often cross, sometimes leaving colleagues feeling isolated.

From the beginning, OSL has taken the lead to cultivate a community of practice across the University. We started by offering workshops on various aspects of Service-Learning where interested people can meet and get to know each other. Most of the time, these workshops are focused on a relevant, timely theme, such as writing proposals, teaching reflection, assessment, and funding. Informal gatherings are also arranged where there are no formal presentations or discussions, but which instead give colleagues an opportunity to gather and catch up, and to maintain a sense of community.

It has often been said that academic departments in universities can be likened to silos, with colleagues not generally communicating across department-silos. This is, of course, somewhat of a stereotype; there has always been collaboration across academic departments. However, the stereotyping also contains some truth. We have witnessed academics defending their academic territory, accusing academics from other departments of encroaching on their territory by offering academic courses in their area - even in Service-Learning. Service-Learning at PolyU is, by

its nature, often a cross-departments endeavour. Building a community of practice across departments is one way to bring people together, instead of allowing the silo effect to drive them apart.

The community is bearing fruit in a concrete way. The Department of Computing had been working on IT-related projects in Cambodia, and subsequently expanded the projects to Myanmar and Rwanda. The electricity supply was often unreliable, even in major cities, and non-existent in many parts of the countryside. When colleagues in the Department of Electrical Engineering learned of this through the Community, they expressed an interest in collaborating and the two teams started working together. Electrical Engineering sent a team to work with the Computing team in Cambodia while they began developing their own subject. Subsequently Electrical Engineering started sending their own team to Cambodia. The two departments continue to further develop the projects and are planning to expand to other sites and countries.

Small amounts of seed funding have been received to develop communities of practice. The funding has covered some of the expenses for gatherings. It has also funded educational development activities such as training course attendance, small-scale exploratory projects, and travelling expenses to attend and present at Service-Learning conferences. Together, members of the group have also jointly applied for and received funding to run significant Service-Learning-related research and development projects. One project allowed several teachers to run action research sub-projects to improve their own Service-Learning subject. Another is a large-scale joint-university project to develop the capacity to teach Service-Learning, which includes development of e-learning resources, cases studies, surveys, and teacher development courses.

Project WeCan

In 2015, PolyU started collaborating with Project WeCan on a number of Service-Learning projects. According to the Project WeCan Foundation, *“Project WeCan is a Business-in-Community initiative providing students who are*

disadvantaged in learning with opportunities and care to empower them for pursuing higher studies and future careers.” The founding patron is Hon Peter Woo Kwong-ching. A total of 10 secondary schools have participated in Project WeCan; initially six Service-Learning subjects supported these schools.

The actual service project carried out depends on the needs of the school and the objectives of the Service-Learning subject, and is subject to mutual agreement. In the first year, there was a STEM project that built a doll catcher robot controlled by electronic signals generated by flexing muscles, integrating biology, electronics, mechanics, and, of course, design. Another project focused on oral and written language training through collecting and telling life stories of the elderly in the community. There was also an IT project which developed an application to promote local tourist attractions around the northern district.

Project WeCan continues to collaborate with PolyU Service-Learning, with some of the schools even starting to institute Service-Learning programmes of their own.

S-curve Growth

There are two critical numbers in the growth of Service-Learning at PolyU. One is the number of credit-bearing academic subjects. The other, perhaps most importantly, is the number of students enrolled – because we are committed to providing enough places for all undergraduates to fulfil the University’s Service-Learning Requirement. In both cases the number grew slowly in the beginning, but then entered a period of very rapid growth. Subsequently the number slowed as the need was satisfied. The result is a classical stretched S-shaped curve for both numbers.

In the beginning, when Service-Learning was first made a requirement, very few people in the University were familiar with its core principles and how they might be applied in a subject. Some were sceptical of its academic rigour and practical feasibility. Others were downright hostile, secretly wishing or even actively pushing for the programme to fail.

Hence it was critical to create success stories to convince the sceptical that the initiative is academically sound and feasible. Success in creating these subjects quickly builds momentum, develops a critical mass, forestalls attacks, and raises the probability of ultimate success of the overall programme itself. In 2011-2012, nine subjects were successfully offered, with a total of 213 students. The numbers of both subjects and students were modest and classes were small. We were still in the piloting phase, when Service-Learning subjects were offered to students in the old three-year undergraduate programmes as an elective general education subject. The first cohort of the 4Y undergraduate programmes would not enter PolyU until September 2012. Nevertheless, there were some impactful projects, even overseas ones. It was a modest success. The piloting was critical to convincing enough people on campus that Service-Learning is indeed both academically sound and practically feasible.

In 2012-2013, the first year of the formal Service-Learning programme was being offered to the 4Y undergraduates. The numbers were still modest but behind the scenes, enough academic staff and their department heads were on board to create a critical mass. Many new Service-Learning subjects were proposed from a wide range of departments and faculties, approved, and ready to be offered. We quickly entered a period of astonishingly fast growth. During those few years, OSL worked extremely hard with departments to develop subject proposals and the actual projects. SCSLS met often, each time examining dozens of proposals. Many proposals were revised multiple times within a short time, to get the subjects ready to launch.

By 2015-2016, when the first 4Y cohort was in its final year, we had already developed enough subjects for the full-scale operation of the Service-Learning Requirement. Thereafter, we no longer needed to proceed at such a breakneck speed. We entered a period of continuing improvement, deepening impact, and more measured growth. The focus changed to exciting innovation and deepening the culture of civic engagement on campus.

5.3 2,400 Becomes 4,000

When PolyU decided in 2010 to make Service-Learning a required subject, we thought the target of providing enough places for 2,400 undergraduates each year was almost impossible. At this point, the extent of our experience was running one or two community service projects, with 20 to 30 students in each group, each year. We surprised ourselves in achieving that target.

Little did we know the target number would become 4,000 – and more – within a few years. PolyU admits roughly 2,400 first-year students each year into full-time, four-year, undergraduate programmes. However, we also admit some students into the 4Y programmes after the first year. In addition, we also have several two-year “top-up” programmes leading to Bachelor’s degrees, designed for students who have completed the equivalent of the first two years of the 4Y Bachelor’s degrees. These are students who have completed associate degrees in community colleges, and higher diplomas in vocational training institutes and other post-secondary educational institutions. These “senior-year-admitted (SYA)” (“senior intake”) students amounted to an additional 1,600. That would increase the total number of students that we need to accommodate to roughly 4,000 (2,400 + 1,600). This number did indeed seem impossible to accommodate.

For a while, there was a ongoing debate within the University as to whether these senior intake / top-up students should be required to take a Service-Learning subject. On the one hand, these students are receiving a PolyU undergraduate degree. If Service-Learning is an integral part of a PolyU education, then they should take a Service-Learning subject. This is particularly important for students who are admitted into 4Y programmes after the first year since they are getting exactly the same degree as the students who enter into the same programme in the first year. Their graduate diploma is going to look the same. This is a strong pedagogical argument for requiring them to take a Service-Learning subject. Even the two-year top-up programmes lead to PolyU Bachelor’s degrees and many employers will not be distinguishing whether they studied two years or four years at PolyU.

On the other hand, Service-Learning is designed as general education. As such, at least half of the students are expected to take Service-Learning in the first two years of their studies, and most are expected to take Service-Learning in the first three years of their studies, leaving the final year for activity such as capstone projects, job hunting, and applying for graduate studies. Students who enter PolyU for only the final two years of an intake do not have that luxury, they must take Service-Learning within these two years. In fact, students generally finish their academic studies in May, meaning that they actually only have four semesters plus one summer term to complete their requirements, not a full two years. There is also the added complication that some Service-Learning subjects stretch over the spring semester and the following summer to complete. This makes it even more complicated for these students to fit Service-Learning into their study plan. These are mainly practical and operational arguments against requiring senior intake / top-up students to take Service-Learning.

Eventually, the University leadership decided that the pedagogical trumps the practical. All 4,000 undergraduate students who receive a PolyU Bachelor's degree must take a Service-Learning subject – whether they study at PolyU for four, three, or two years. In a certain way, we are proud of that decision. If it is educationally sound, we will find a way to achieve it. Where there is a will, there is a way – within reason. Once that was decided, we went to work, immediately. We can look back now proud that we have succeeded, despite our initial anxiety, thanks to concerted efforts across the campus. †

Chapter 6

The University Social Responsibility Network and International Conference on Service-Learning

In the beginning, Service-Learning at PolyU was perceived generally as a stand-alone programme, a Requirement that the students must fulfil. It was not a wrong perception, at least in the beginning, when all our energy had to be concentrated on setting up the programme. We had to put all resources into developing sufficient subjects and student places so that our students could fulfil their requirements. Soon, however, it became obvious, at least to the core staff members in the programme, that Service-Learning must be a lot more than that. Service-Learning is not just about teaching a certain type of subject. To teach Service-Learning well, we must validate the output, and confirm that the students do achieve the desired learning outcomes and that the impact on the community is indeed positive. We must conduct our own research to inform and improve the teaching. We also found that some of the most impactful Service-Learning projects are conducted in the international context and that Service-Learning is one excellent way to teach global citizenship and build collaborative relationships with foreign universities. Furthermore, what is true of students is also true of the university as a whole – student civic engagement is a key component of university social responsibility. This chapter highlights some of our initial efforts in these related areas.

6.1 Genesis of the Service-Learning Conference

As soon as PolyU decided to embark on its Service-Learning journey in 2010, we realised that we knew very little about Service-Learning and that we had to start developing a corresponding research agenda. Learning to be practitioners first, developing subjects and projects, we started designing our programme by studying established Service-Learning programmes in other universities, while also drawing upon what little experience we had in our own co-curricular Service-Learning projects. We also consulted colleagues with relevant experience in related disciplines such as social work. We were serious about developing a credible programme, and a credible programme must be based on and informed by validated research of our own. We started collecting data on our programme's implementation and analysing our results. We also started conducting small-scale research on various aspects of Service-Learning, on the pedagogy itself, as well as its application in specific academic disciplines. We also organised research salons at which colleagues could share their ideas, projects, and research results.

In 2013, we decided to create a more formal forum for presentation and publication of research results by organising an international conference, targeting Hong Kong and the neighbouring Asia-Pacific region. We set the date for the conference to be 2014, with the hope being that, by that time, colleagues at PolyU would have meaningful research results to be shared. At around this time we were becoming aware that universities in other countries in the region were also implementing or becoming interested in Service-Learning. It would be a good opportunity for practitioners and researchers, even those just starting out, to gather and compare their experiences. To encourage people to present their research at the Conference and still be able to publish in other channels, we decided that copyright of the papers presented at the conference would remain with the authors.

The Conference served multiple purposes. It was a forum for our own PolyU academics, who might be experienced researchers in their own discipline but

new to Service-Learning research, to publish their research on Service-Learning. They may be teaching staff who are primarily responsible for teaching, whom we wanted to encourage to start researching in Service-Learning. Established conferences in this field were mainly hosted in the USA, and so this conference was also intended to be a forum for publicising Service-Learning research from the Asia Pacific region; there were simply very few such forums in the region. Presenting at an overseas conference is quite a challenge for many academics in Southeast Asia, both because of the distance and the financial cost. Academics in universities in some countries in Southeast Asia are paid only about US\$300 a month and the registration fee for an international conference in the USA can easily exceed their monthly salary. Even for them to travel from their home country to Hong Kong can be a hardship. Thus, we allocated part of our budget to subsidising some of those with serious financial issues.

There was some hesitation among us when it was proposed to organise our first international conference in 2014. Having started offering academic Service-Learning subjects only in 2011, would we be ready by 2014? Would we even have enough quality papers to present ourselves? It would be embarrassing if the host was not able to present a decent number of meaningful papers. In this respect, however, we did have some confidence. During the process of designing our Service-Learning programme, we learned much and we felt we could share that experience. We had started collecting and analysing data related to various aspects of Service-Learning at PolyU that were quite distinctive. As noted in previous chapters, Service-Learning at PolyU is not only credit-bearing but also compulsory. It is not common for a comprehensive university to require Service-Learning across all disciplines, especially not in Asia. Additionally, and within a short period of time, we had developed many interesting subjects, some of which incorporated international projects. Thus, we felt we should have some respectable papers to present.

Another reason for hesitation was concern over whether we had sufficient status in this field to be a convincing host. In this regard, we had quickly developed quite a few partners in the relatively short time we had been involved with Service Learning, in Hong Kong, Mainland China, as well as in overseas countries – mainly

in the Asia Pacific region. We had also made many friends from foreign countries, through participation in conferences and other opportunities. We felt confident that the conference would be well-attended.

There was also another reason for our boldness – and this was precisely because it was bold. We knew that unless we built up momentum quickly, we might not be able to reach a critical mass and cross that tipping point fast enough. If progress was perceived as too slow, opposition within the University would be emboldened, try to hold us back, and perhaps even to scrap the programme altogether. In Chinese we have an expression to describe the determination to succeed – “to fight with our back to the river (背水一戰).” With the enemy in front and the river at our back, there could be no retreat. To retreat would be to drown. The only way to survive, and succeed, was to struggle forward. Once we had made the decision to hold the international conference in late 2014, retreat was no longer an option. To call it off after announcing it to the world was just too humiliating to contemplate. We had no choice but to make it a success and that reality was important in driving us forward to make it a success – and a success it was!

6.2 University Social Responsibility Summit

At the same time, there was another initiative at PolyU that complemented and strengthened what we were doing in Service-Learning. Under the leadership of the then Vice President (Institutional Advancement and Partnership), Professor Angelina Yuen, the University had organised the First Summit on University Social Responsibility (USR) in 2012 for senior university administrators. To follow-up, the “USR team” was planning to organise a Second Summit as well as the formation of a University Social Responsibility Network (USRN). USR shares some of the vision of Service-Learning but is much broader in scope. Service-Learning can be conceived of as the integration of social responsibility into teaching, informed and supported

by research. USR is the integration of social responsibility into institutional management, teaching, research, services, and public activities – in other words, all aspects of the university. The “USR team” at PolyU had been considering the idea of an organisation to bring together a group of thought leaders to exchange ideas, resources, and practices of varied scope and scale to steer global discussion and development of USR in higher education.

The Service-Learning and USR initiatives target distinct but overlapping communities. The Service-Learning initiative is about teaching and pedagogy and is thus aimed mainly at academics and practitioners. The USR initiative is about the mission of a university beyond teaching and research, and thus is aimed mainly at senior university administrators. However, there is, of course, much overlap between the two initiatives and the respective target communities. It was recognised that if the USR Summit and the Service-Learning Conference were held together, they would be complementary and mutually attractive to potential participants – some would want to attend both. The two events could also share some resources, reducing the cost and effort for both. Hence, there was motivation to coordinate the two events. After much discussion between the Service-Learning and USR teams, it was decided to hold a joint multi-day event towards the end of 2014. The first day would be devoted to USR – the Second Summit on USR. The subsequent two days would be devoted to Service-Learning – the First International Conference on Service-Learning (ICSL). Participants could attend any or all events, and a significant number were expected to attend both sections.

The USR Summit was opened by a presentation from the Honourable Eddie Ng Hak-kim, then Secretary for Education of the Hong Kong Special Administrative Region Government. PolyU was represented by Professor Timothy Tong, then President of PolyU, and by Mr Chan Tze-ching, then Deputy Chairman of the University Council.

Speakers at the Second USR Summit included senior executives from PolyU, as well as (in alphabetical order): Beijing Normal University (China), Haifa University (Israel), Kyoto University (Japan), National University of Singapore (Singapore),

Peking University (China), Sichuan University (China), Stanford University (USA), Tufts University (USA), University of Cambridge (UK), University of Manchester (UK), University of New South Wales (Australia), University of Pennsylvania (USA), Washington University at St Louis (USA), and Yonsei University (South Korea).

One of the major achievements of the Summit was the decision made to launch a USR Network soon after the event.

6.3 Inaugural Service-Learning Conference (ICSL 2014)

The Inaugural International Conference on Service-Learning (ICSL) 2014 was jointly chaired by Stephen Chan, Head of the Office of Service-Learning at PolyU, and Joseph Sun, Vice Dean for Academic Affairs, School of Engineering and Applied Science at the University of Pennsylvania. The opening keynote was given by Professor Andrew Furco, then Associate Vice President for Public Engagement at the University of Minnesota, a highly respected leader of the Service-Learning community. Professor Furco spoke on strategies for addressing the core issues of research and scholarship. His keynote initiated a long-term and productive collaboration and he has since visited PolyU several times. The second keynote was given by Ms Barbara Canyes, Executive Director of the Massachusetts Campus Compact, whose presentation on the important topic of partnership provided much insight based on their experience.

Andrew Furco is Associate Vice President for Public Engagement at the University of Minnesota and is a highly respected elder of the global Service-Learning community. To be found in a classic paperback published in 1996, his definition of Service-Learning

as a balanced approach to experiential education has been cited numerous times. Professor Furco has given the PolyU community thoughtful and pertinent advice through his keynote speeches at various conferences, workshops, and in numerous other formal and informal interactions. His quest to link up the global communities aligns well with our interest in international Service-Learning. He has personally introduced us to many relevant parties across the world. He remains a great friend and truly an integral part of our community.



Figure 6-1. First International Conference on Service-Learning (ICSL) in Hong Kong, 2014.

We organised two panel discussions at the Conference: one on the main topic of university Service-Learning, with speakers representing USA, Israel, Singapore, and China; and the second on funding and collaboration, stimulating a dialogue

among speakers representing donors, NGO partners, researchers, and practitioners. A total of 31 academic papers and five student presentations, representing many countries in the region, covered a wide range of topics.

Together, the USR Summit and the Service-Learning Conference attracted more than 200 attendees. The great majority of attendees were administrators, academics, and practitioners in the Asia Pacific region. The event provided them with an opportunity to get to know each other, share experiences and research results, and make connections, strengthening our community. We also brought in experienced administrators, researchers, and practitioners, mainly from outside our region, as keynote speakers and panellists, so that participants from the region could access valuable experience without having to travel very great distances. Based on the feedback from the post-conference survey, as well as anecdotal comments, the Conference was a great success and much appreciated by all who attended. Thereafter, we have continued to organise the Conference roughly every two years.

Organised to coincide with the ICSL and USR Summit and to provide a fuller picture of the scope of related Service-Learning initiatives and how they complement each other, the “PolyU Serves Showcase” exhibited the University’s accomplishments in Service-Learning and its efforts in nurturing students “*To Learn to Serve*”. The Showcase featured a project exhibition focusing on four main themes: “Education and Technology”, “Environment Improvement and Sustainable Development”, “Health and Wellness”, and “Social Integration”, with on-site demonstrations, games and workshops, and student sharing. The on-site demonstrations consisted of vision screening and a health check for the public to showcase how students integrate knowledge in serving the community. It was part of our continuing efforts to inform the University community about what Service-Learning is. We have organised several similar events over the years.

Through the presentations made at the Conference, conversations on the side-lines, and other connections, we began forming a picture of the Service-Learning scene in the Asia Pacific region. We learned that in some places, such as in India

and the Philippines, there was already quite a strong tradition of Service-Learning, driven, apparently, mainly by the Catholic universities with their strong culture of service. At several universities in Indonesia, there is a distinctive practice of community service, sending students into immersive experiences in remote villages to live among the villagers for months at a time. In Taiwan, there is a government directive to promote community service at universities, often involving service to their own campus community. In some countries, universities are just getting started with Service-Learning and are eager to learn from the experience of others.

Among the universities active in community service, however, there remains considerable room to strengthen the academic learning in their programmes.



Figure 6-2. The team that organised the 2nd ICSL, in December 2016



Figure 6-3. The 3rd ICSL was held in early 2019. (a) A panel discussion (b) The Call for Papers



Figure 6-4. In association with the 3rd ICSL, we also organised a Social Innovation Hackathon. (a) A banner announcing the Hackathon (b) One of the sessions of the Hackathon



Figure 6-5. ICSL 2019 banquet at Hotel ICON, pride of the PolyU School of Hotel and Tourism Management



Figure 6-6. The 4th ICSL was held after the COVID-19 pandemic had eased, still in hybrid (in-person/online) mode, in late 2022.

6.4 National Conference on Service-Learning in China

By 2019, PolyU had already organised three international conferences on Service-Learning and participated in numerous others, local, regional, and international. We also sensed that interest and practice in Service-Learning had been growing steadily across Mainland China. It was the right time to start developing a national platform for the various universities to meet, organise, and discuss issues of particular relevance in our own language, culture, and social environment, and, in the near-future, articulate the Chinese voice in the international arena. In May 2019, PolyU co-organised with Xi'an Jiaotong University the first such national conference in Xi'an, China. Representatives from about 10 universities spoke at the conference.

Despite the interruption of the COVID-19 pandemic, interest in the National Conference continued to grow, the momentum resulting in the development of a national network and organisation of further such conferences. The Tin Ka Ping Foundation provided valuable funding to support the Conference, alongside their support for several Service-Learning initiatives at PolyU, which included a number

of projects associated with the teaching of English as service in China and a leadership-Service-Learning programme through which the students from Peking University and Xi'an Jiaotong University joined students from PolyU.



Figure 6-7. The First National Conference on Service-Learning in China was held in Xi'an, China, in May 2019.

6.5 Beginning of Service-Learning Research at PolyU

By 2014, we had only been involved in rigorous academic Service-Learning for just a few years, yet we had already accumulated significant experience and preliminary research results to be shared with the planned Service-Learning Conference.

At ICSL 2014, we presented a paper on the salient features of the Service-Learning programme at PolyU. We described our experience of developing Service-Learning as credit-bearing academic subjects with common expected learning outcomes including linkage between academic content and societal need, application of academic knowledge to service, empathy, and responsible citizenship. We noted

that, while Service-Learning is compulsory, we address student choice by providing them with a large pool of subjects to choose from. We supported the notion of large classes to cater for the large number of students, with quality ensured via a rigorous vetting process. We also provide strong operational support and staff development through the OSL, with additional funding for innovative practices and overseas travel so that Service-Learning can be integrated with international and cross-cultural competency. Courses had been successfully launched from across all faculties. We started with the goal of being able to offer at least one Service-Learning subject from each academic department and we were very close to achieving that target. Students were achieving the learning outcomes as expected, largely validating the original design of the programme.

The PolyU model, as presented at ICSL 2014, was rather descriptive. We simply listed what we felt were distinguishing characteristics of how we had implemented Service-Learning. We knew it was not really a “model” in the sense of a conceptual representation of the key elements of Service-Learning and their inter-relationships, but we had to start somewhere. Our concept has continued to be developed and expounded with greater rigour, as we gather more experience, collect more data, and understand the interplay among the various critical factors.

In another paper at the Conference, we presented our study on the validity of the Global Citizenship Scale in the Hong Kong setting. This measure is important to us as well as to other universities with a significant international Service-Learning programme. The Global Citizenship Scale was originally validated with students in the USA and so before we could use it to evaluate our own Service-Learning programme, we needed to validate it in the Hong Kong context. Fortunately, our preliminary study indicated that it may be applicable in the Hong Kong setting; but a larger-scale study was needed to be sure.

There were also papers on subject outcome evaluation, teacher development, a problem-based approach to Service-Learning, and student reflections. Other than papers on general Service-Learning pedagogy and validation, PolyU colleagues also presented several papers on the application of Service-Learning in specific disciplines such as adolescent psychology, civil engineering, building and real

estate, public health, and environmental sustainability.

Clearly, our research programme in Service-Learning was very modest at that time. In the following years, we would greatly expand on the scope and depth of our research. We are particularly interested in a number of questions. What are the most critical factors that affect the learning outcomes of the students in general? Does making Service-Learning compulsory affect the learning of the students positively or negatively? How does teaching Service-Learning affect the teachers? How should we prepare teachers to teach Service-Learning? How can we achieve cross-cultural competency through Service-Learning? How does Service-Learning contribute to students' global citizenship? How is the teaching of Service-Learning affected by the cultural, economic, and political environment of the society?

By 2020, we were publishing regularly in highly-ranked international higher education journals. In 2020, we won the International Research Award from the International Association of Research on Service-Learning and Community Engagement.

6.6 USR Network and Global Service-Learning Scheme

One year after the Second University Social Responsibility Summit in 2014, the USR Network was launched. It has quickly enlarged to now include 16 core member universities covering all six continents (excluding Antarctica). The Network aims to have core members from a wide geographical coverage and yet remain small enough to be nimble in decision-making and action. Major activities include summits where issues are discussed, collaborative Service-Learning projects, publication of books, and MOOCs (massive open online courseware).

In summer 2015, PolyU started offering a Global Service-Learning Scheme

(GSLS) to students from USR Network member universities. Through the Scheme, several PolyU Service-Learning projects are open for participation from USR Network students. In the same summer, two students from Beijing Normal University (China) joined PolyU students running IT workshops for youths in poverty in Cambodia. A pair of students from Sichuan University (China) joined PolyU students running a health promotion project in a slum in Cambodia. Another two students from Peking University (China) joined PolyU students in the installation of solar panels and running STEM workshops in remote villages in the mountains of Rwanda. In the first year of operation, the students participating were mainly from Mainland China. There were challenges that needed to be overcome but the effort proved promising enough for the programme to continue.

In the following year, things were much better organised. That summer, eight students from USR Network member universities joined projects in Cambodia – two from the University of Haifa (Israel), four from Washington University in St Louis (the USA) and two from Sichuan University (China). Another student from Yonsei University (South Korea) joined a project in Sichuan. It was an exciting year for international collaboration. Although the foreign students did not have the opportunity to go through the intensive training that our students did prior to going to Cambodia, particularly in the technical aspects such as the assembly of solar panels, they brought different qualities that enriched the experience for all. The American students tended to be more inquisitive and dynamic, posing welcome challenges to our students. The two Israeli students were graduate students and army veterans, bringing a whole new dimension of maturity and leadership. Most of the PolyU students were from Hong Kong and there were also some students from the Royal University of Phnom Penh in Cambodia. Everybody brought their own idiosyncrasies. All students benefitted from the diverse personalities and cultural backgrounds. The projects were widely successful in several aspects: the installation of solar panels, interactions with the local villagers, social interactions among the students themselves, and establishment of cross-institutional collaborations.

The GSLS programme operated for a couple more years with the experience confirming for us the value of international collaboration. We have since developed and experimented with other forms of international collaboration. While in the

GSLS foreign students joined our projects as individuals, we have since invited small teams, led by teachers, to join us as equal partner teams. These foreign teams can also be enrolled in a credit-bearing subjects at their own institutions themselves. In a forerunner of sorts of the Collaborative Online International Learning (COIL) classroom, we created global virtual classrooms whereby a PolyU subject and a subject at a foreign university would share some common sessions, which would be taught by either the PolyU side or the partner university side. In the spirit of interdisciplinary collaboration, the subjects can have different academic themes, such as Service-Learning, global leadership, and so on. We have organised international hack-a-thons, in person and online.

6.7 The Mandate of the OSL

While the International Conference on Service-Learning was organised to promote research, there has been some uncertainty as to whether research was part of the mandate of the OSL. The OSL team ourselves were sure, from the very beginning, that we need to do our own research for many reasons – to inform our practice, validate the pedagogy, establish credibility for what we are doing, help to advance the field, and simply to challenge ourselves to become a centre of excellence.

However, University management seemed sceptical of at least part of that vision. In fact, several senior members of management, at different times, have remarked that research on Service-Learning, if PolyU were to do it, should be carried out by academic departments, not OSL, as we are considered a “non-academic” department.

There is no doubt that academic departments have a clear mandate to conduct research and that reasonably can include research on Service-Learning, which they teach. However, OSL, as the central unit tasked with promoting Service-Learning

across the University, is involved in all aspects of the Service-Learning initiatives: creating new subjects, creating new projects, vetting subject proposals, supporting and co-teaching many of the subjects, finding suitable partners, soliciting funding, and exploring new opportunities, sites, communities, and countries. As the central unit responsible for the programme, OSL has the broadest perspective of the wide range of Service-Learning subjects and projects across the University. In contrast, most academic departments offer at most only a few Service-Learning subjects in their own discipline. OSL connects and collaborates with many practitioners and researchers across the world. To most people outside PolyU, we are the face representing Service-Learning at PolyU. Finally, OSL is tasked to collect data on many aspects of the Service-Learning programme, in order to validate the effectiveness of its implementation for the University. All these factors make it imperative for PolyU to conduct relevant research, and OSL is best placed to conduct that research. In fact, without conducting appropriate research, OSL would not be able to carry out many of its functions effectively, and PolyU would not have a credible Service-Learning programme. It would be grossly wasteful of the vast experience and data that we have been accumulating. Furthermore, when OSL conducts research-related activities such as organising conferences and applying for funding, it is most usually in collaboration with academic departments. Research by OSL and research by academic departments are not mutually exclusive.

It is not just in the area of research that OSL is achieving beyond its original mandate as it was perceived by some members of management. Many considered the mandate of OSL to be to support the development of a sufficient number of Service-Learning subjects only, thus enabling students to fulfil the University Requirement to take at least one subject in Service-Learning. Anything beyond that is not necessarily seen part of the OSL mandate. Most would not dispute with OSL undertaking activity such as staff development and development of e-learning modules, as these activities are clearly relevant to supporting the core Service-Learning requirement.

While we have been developing and offering training programmes for our own staff, the marginal effort required in extending such training to the staff of other

universities in Hong Kong, even universities in the region, is relatively modest. Yet it validates the quality of our programme and applicability to other universities, opens new venues of cross-institution collaboration, creates benefits for the high education community as a whole, enhances our standing in the global community, and helps to improve our academic ranking. It even generates a modest income stream for the University.

Similarly, we have developed, and continue to develop, electronic resources to supplement and enhance our teaching of Service-Learning. Once developed, the marginal effort in making these available and suitable for an international audience, including translation from English into Chinese for the Mainland China community, are relatively modest. Yet this provides much appreciated assistance to many other universities. We have, however, made it a matter of principle that we do not make use of our own funds to extend these resources to serve other universities; we have instead been able to secure external funding support for these efforts for the benefits of the wider Service-Learning community.

Internationalisation is a major area in which our efforts can be seen as extending beyond the boundary of the perceived core mandate of Service-Learning. Originally, we embarked on Service-Learning in foreign countries because it creates greater impact on our students and on the target community, hence it is clearly and fully within our mandate. At the same time, impactful Service-Learning for communities in foreign countries in desperate need creates great benefits for our students much beyond those achievable through normal student exchange tours to foreign countries. International Service-Learning has been making very considerable contributions to the internationalisation efforts of the University. Again, for many years, the travelling expenses of most of the international Service-Learning projects have been funded by donations and other sources beyond normal University funding. This funding has enabled us to create many innovative and impactful projects, helped us make many new friends of leading universities in so many countries and also enabled us to extend the range of the University's recruitment of foreign students, particularly those talented and deserving students from developing countries.

Dr Aye Aye Tun was Vice Rector at Dagon University, Myanmar and facilitated PolyU's first Service-Learning projects with universities in Myanmar, starting in 2014. She subsequently leveraged her local connections to help us set up projects with local schools and villages. At the same time, Dr Tun was developing her own Service-Learning programmes at Dagon University. She worked tirelessly in arranging for her students to collaborate with PolyU students on many projects, personally looking into details (important to us) such as suitable accommodation and local transportation. She has since retired. We are forever grateful for her assistance and hope that, one day, our teams can return to Myanmar.

Dr Martina Jordaan from the University of Pretoria, South Africa was a teacher of a large Service-Learning course at that University when we first got to know her. She subsequently collaborated with a PolyU team on development of innovative online Service-Learning projects during the coronavirus pandemic. She has since moved to a different position within the University and has collaborated with us in setting up our first in-person Service-Learning projects for PolyU students in South Africa, serving children from the townships.

It can perhaps be said that we have been creating our own mandate, instead of waiting for our mandate to be decided by others. All is driven by our belief in the powerful pedagogy of Service-Learning and civic engagement, the vision of pushing the boundaries of what is achievable, and the desire to become a centre of excellence in everything that we do. It is this belief, vision, and desire that has fashioned our mandate and forged us together as a team. †



Chapter 7

First Batch of Service-Learning Graduates

It has been said that good things are worth the wait. This has certainly been true for Service-Learning at PolyU. We started designing the programme in 2010 and we had to wait six years for the first cohort of students to graduate. By that time, some of the original protagonists had moved on, some having left the University and others having retired, although many more remained. On the other hand, it has also been said that nothing valuable comes without effort. That is also very true. Thousands of undergraduate students do not magically complete their Service-Learning subjects without much hard work going into making that happen. Our challenge is not just to provide a large number of places in subjects for the students; we also have to make accurate projections as to the actual number of places needed, without providing more than needed. A service project is a contract between the University and the community served. If we promise to send a certain number of students to a community but fail to deliver, the community would be disappointed and might actually be harmed when the expected service is not delivered - a problem that does not exist for regular academic subjects. Service-Learning offers many such new challenges. We learn to deal with some of these challenges based on other people's experience and research. For many, however, we must conduct our own research in order to figure out how best to meet them. Some of those stories are highlighted in this chapter. Some of the results of our research have been published in academic papers, by way of our own contribution to the global Service Learning community.

7.1 The First Cohort of Graduates

The first cohort of students required to take Service-Learning subjects entered PolyU in September 2012 and subsequently graduated in May 2016. The students were able to complete their Service-Learning requirements and graduate on time, but the process had not been completely smooth sailing. There were several challenges which were, fortunately and with the concerted efforts of many parties, successfully met.

The Demand for Service-Learning Places

The general University guidelines on Service-Learning do not specify when in a four-year programme a student should take their required Service-Learning subject. Hence, an academic department can decide on the timing, or the study pattern, for each of their academic programmes.

Data we have gathered indicate that a relatively small number of students begin Service-Learning in the second semester of their first year, with larger numbers beginning their Service-Learning in their first summer, with those numbers continuing to be high throughout the second and third years. By the final year only a small number of students have not yet taken their Service-Learning subject. There are, however, students who want to take general education subjects, including Service-Learning, early on in their studies, for various reasons. Some have not yet made up their mind on their major when they enter PolyU and are inclined to take general education subjects rather than subjects in their major in their first year. Others may be motivated to take general education subjects early because they perceive these subjects as easier; they may be trying to boost their academic record early on or maintain their academic performance to retain an entry scholarship. Some may do so in order to complete general education subjects so that they can concentrate on their major subjects in subsequent years.



Some try to enrol onto their favoured Service-Learning subject as early as possible – so that, if unsuccessful, they can try again, and again, in later years. For example, projects in Rwanda visit sites in remote mountains which are truly off-the-beaten-path where villagers still live in adobe houses built with mud bricks dried under the sun with no running water or electricity. Villagers live and cook pretty much like their ancestors did hundreds of years ago and some students are put off by the challenge. However, there are enough students who are, on the contrary, attracted to such a challenge, feeling, perhaps correctly, that even if they join a commercial tour to visit Rwanda, it is highly unlikely that they would be able to spend time in a truly authentic native village in the remote Rwandan mountains. It truly is a once-in-a-lifetime experience. There are several other subjects with their own special attractions. The number of places for some of these subjects are limited by the nature of the project, logistics, and costs incurred. For these reasons the competition to enrol in some Service-Learning subjects can become quite keen.

At the other extreme, there is a small percentage who have not taken Service-Learning even by the end of their fourth year. These tend to be students who are facing other challenges: some have health issues which slow down their progress; some have financial problems; and others may be performing poorly academically. So far, there has been no case of a student failing to graduate only because of their failure to find a suitable Service-Learning subject, or otherwise failing to complete the Service-Learning subject requirement. Understanding the demand for Service-Learning places helps us prepare adequate subject supply.

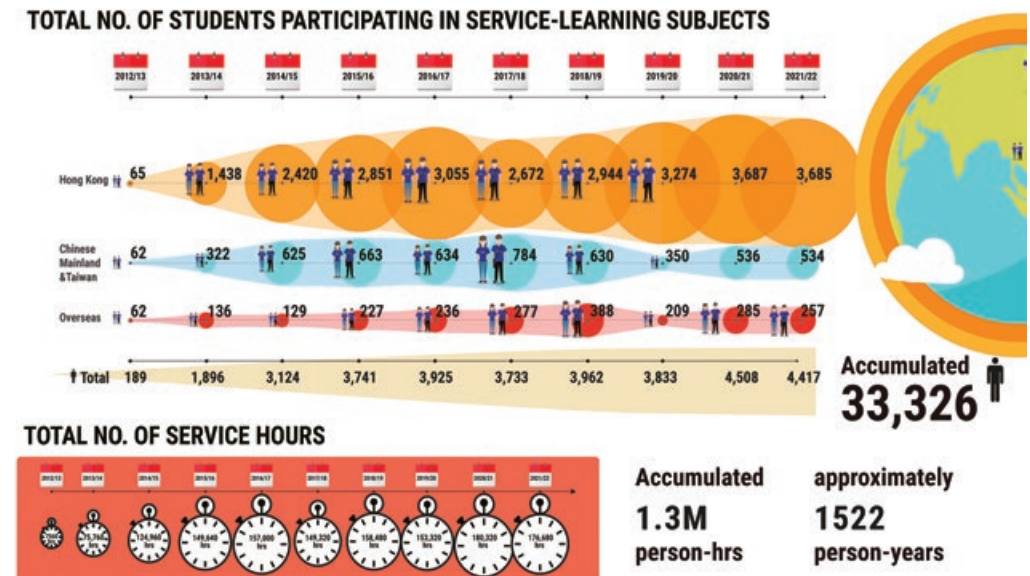


Figure 7-1. The growth in numbers of Service-Learning at PolyU. In the first four years of operation, the number of subjects and students grew very quickly. By 2016, we had reached full implementation and the first cohort graduated. Since then, growth has been more moderate, in line with the gentle growth of the total undergraduate population.

The Supply of Service-Learning Places

We aim to offer a wide range of Service-Learning subjects covering as many academic disciplines as possible, so that students have plenty of subjects to choose from. Our goal is to offer student places roughly 10% in excess of the expected demand, thereby allowing some flexibility for students in choosing their subject.

However, it is not desirable to maintain too high an excess. One reason, as stated above, is that a Service-Learning subject is essentially a contract between PolyU and the partner organisation and target community. PolyU is committed to sending out an agreed number of students to carry out an agreed service project, while the partner is committed to facilitating our students' execution of the project. The partner has a reasonable expectation that there will be an agreed number of

well-trained, well-prepared students onsite to carry out the project, to meet certain identified needs. If PolyU cannot make available the promised number of students at the agreed time, the members of community will be disappointed, their needs will not be met, and the consequence can be serious. Since these are, by definition, under-served members of the community and thus more vulnerable, PolyU may cause material harm, in addition to disappointing the partner and the community. For this reason, a severely under-enrolled subject is highly undesirable, while a cancelled subject could be a disaster, causing harm to the community and damaging the credibility of the University. We have witnessed many such cases involving prestigious universities from Hong Kong as well as from foreign countries.

For these reasons we need to make accurate projections of the total number of student places for each semester. We then must ensure that we provide roughly a 10% buffer over the number of places needed. If the number of places offered is too much in excess, some subjects may be severely under enrolled or even cancelled. Besides being problematic for our partner communities, it would also be stressful for the students who remain because they may have to undertake extra tasks in order to deliver the service promised to the partner. For cancelled subjects, students may have to defer fulfilling their Service-Learning Requirement, or swiftly enrol in other Service-Learning subjects if available. Either way, it would cause significant disruption to plans and necessitate difficult adjustments.

On the other hand, if we cannot offer sufficient places, it will disappoint a lot of students, generate student resentment, and cause problems for teachers who may be under pressure to increase class quota beyond that for which they have prepared. Generally, we use several sources to make projections on the number of students expected to take Service-Learning in a particular semester. These include the size of each cohort, indicative programme progression patterns, attrition rates, and past enrolment numbers. We also have to offer a distribution of Service-Learning subject types that roughly matches students' interests.

It often takes several months to a year or more to set up a Service-Learning subject with an NGO partner and deserving community. If it is a long-term partner,

the situation is better but, even then, there might be changes in personnel, the project itself, the needs of the community, and other factors that require further negotiation and preparation. There is certain to be short-term rigidity in the offering of Service-Learning subjects and student places – a subject cannot be changed easily in a short time. For example, it is generally not very easy to drastically increase the class size of a Service-Learning subject from 50 to 100, to accommodate unexpected demand from students.

The Wide Range of Service-Learning Subjects

Other than the total number of students and places, we also must ensure that the range of subjects matches the range of student interests to a reasonable extent. Student preferences may be linked to their academic discipline (language, engineering, health science, business, etc.), target community (children, the elderly, etc.), site of service (Hong Kong, Mainland China, some generic or specific foreign country, etc.), and type of service (direct, indirect, etc.). The match will never be 100% and student interests are typically not very narrow. However, if students can enrol in a subject broadly reflecting their interests, the learning experiences and outcomes are generally better.

Each year, over the fall, spring, and summer sessions, we offer more than 60 Service-Learning subjects covering almost all academic disciplines. From research on Service-Learning, educational theory in general, and our own experience in teaching, we know that it is important to give students some degree of autonomy in learning. One size does not fit all. Since we have made Service-Learning compulsory, we need to give students sufficient choice in selecting a Service-Learning subject.

On the other hand, we truly believe that all academic disciplines have something to offer in tackling the needs of the under-served. It is only our imagination, or the lack of it, that limits what Service-Learning subjects can be developed in the disciplines of engineering, science, social science, health science, humanities, business, design, textiles, and hotel and tourism. On this front, PolyU has been quite successful in offering Service-Learning subjects from almost all of its academic departments. However, we are far from having exhausted all possibilities. We continue to look for new opportunities to create innovative subjects and projects.

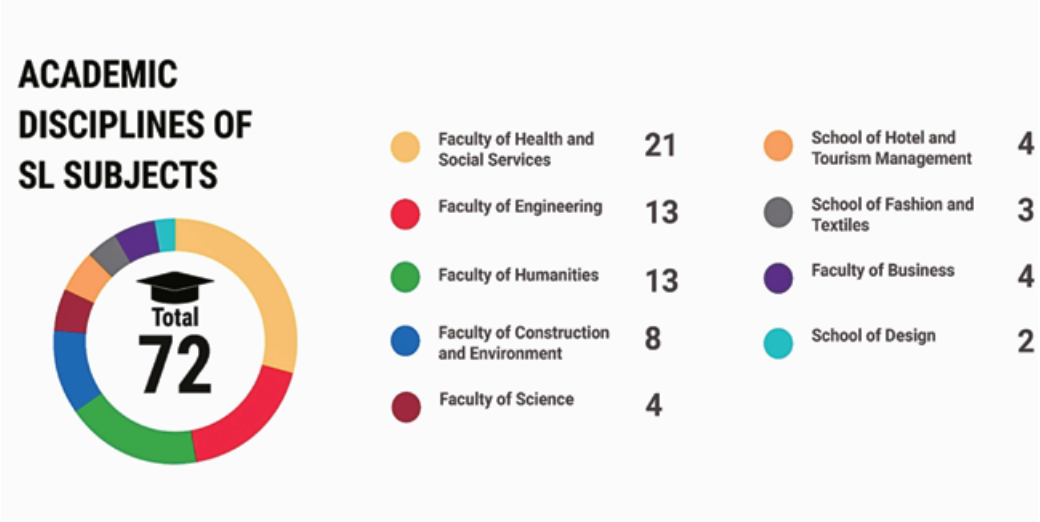


Figure 7-2 The distribution of Service-Learning subjects across faculties and schools. All are involved in offering Service-Learning subjects. The number of subjects offered varies among them, partly reflecting their differing sizes.

The following is a sample of Service-Learning subjects and associated projects on offer at PolyU. Subjects are selected to demonstrate the range of academic disciplines, project types, and locations involved. It represents roughly one-third of all our Service-Learning subjects.

Discipline	Subject Title	Target Recipient	Service Project
Geomatics	Land and Resource Management for Sustainable Development in Rural Areas	Rural communities	Students collect and compile cartographic and geomatics data to produce maps that aid development, such as by indicating location of natural resources and landforms.
Accounting and Finance	Financial Literacy for Low-income Youths	Low-income youths	Students design activities related to financial literacy to foster appropriate values in personal financial management in young people from low-income backgrounds.
Applied Mathematics	Quantitative Methods for Community Service	NGOs	Students help partner NGOs to quantify the needs and preferences of the people. They serve through interviews and data analysis, to inform follow-up services.
Applied Science	Educating Rural Farmers on Healthier Food Production	Rural farmers	Students help farmers to improve crop-growing standards and avoid crop yield reduction by introducing novel agricultural practices that aid in safer and healthier food production.
Building and Construction	Living Environment for Low-income Communities	Households in low-income communities, such as in slums or impoverished rural villages	Students carry out projects to improve quality of life, such as installation of water filtration systems for villagers in Cambodia and designing more efficient and cleaner-burning stoves in Rwanda.
Building and Construction	Science for Healthy and Sustainable Living Environments	Students in lower-performing schools	Students mentor secondary students to develop projects and experiments that help them to learn about environmental quality and sustainable development. The project finale is a student conference where the secondary students present their findings.

Discipline	Subject Title	Target Recipient	Service Project
Building and Construction	Social Justice in Private Housing Redevelopment	Homeowners in districts affected by urban renewal	Students collaborate with social workers to advise clients of their rights under relevant ordinances and give recommendations on the estimated value of their properties.
Biomedical Engineering	Reducing the Scientific Divide in Primary and Secondary Students through STEM projects	Secondary students in low-performing schools	Students develop interactive STEM education workshops for students in low-performing primary and secondary schools to cultivate a spirit of scientific literacy.
Fashion and Textiles	Community Engagement through Expressive Textile Arts and Fashion	Marginalised communities (e.g. people with mental illness, disabilities or neurodivergence)	Using expressive textile arts, fashion creativity, and garment prototyping as a caring medium, students work with recipients to design and construct a garment to reconstruct their self-image. The project cumulates in a styling presentation where recipients present their own creations.
Hotel and Tourism	Ecotourism in Rural and Developing Regions	Communities in rural areas with ecotourism resources	Students assess and review potential resources for ecotourism development through site visits, interviews, and interactions with local people, and observations to understand their culture and customs. They plan ecotourism activities and provide training to the local community on branding and operation.
Language and Communication	Enhancing Bi-literacy and Tri-lingualism through Language Service	Various (the elderly, underperforming secondary students)	Students render different kinds of service focusing on use of language (e.g. composing life stories for the elderly, drafting community tourism materials with secondary students).

Discipline	Subject Title	Target Recipient	Service Project
Language and Communication	Preserving Cultural Heritage for Ethnic Minorities in Contemporary China	Ethnic minority communities	Students help record oral testimonies, ceremonies, songs, dance and skills of ethnic minorities to preserve ethnic culture and minimise cultural loss.
Language and Communication	Serving the Community through Teaching English	Primary students from low-income communities	Students design and deliver a week-long English language workshop to primary children from low-income communities. As part of the service, students create unique story-based teaching kits based on cultural context and the ability and learning needs of the students in different places. Implemented in Hong Kong, Mainland China, Taiwan, and Cambodia.
Language and Communication	Understanding Learning Difficulties	Children with reading difficulties	Students design interesting learning materials to deliver an intervention to children with reading difficulties.
Management and Marketing	Building Green Communities with Environmental NGOs	NGOs	Students work with environmental NGOs to help develop a green community through organising activities that promote environmentalism education in the community or by providing solutions to environmental problems.
Mechanical Engineering	Engineering Design for the Community	Low-income Elderly	Students co-design assistive tools with recipients to help facilitate and ease their lives, and to rebuild their capability and self-efficacy for daily life.

Discipline	Subject Title	Target Recipient	Service Project
Nursing	Healthy Lifestyle Challenges for Developing Communities	Low-income communities in developing countries	Students study the lifestyle patterns, living environment and food availability of low-income communities such as families in slums or rural areas. They then develop a nutrition plan to advise families on habits and behaviours that can be changed to achieve a healthier lifestyle.
Optometry	Eye Care and Vision Health for the Community	Under-served communities	Students provide vision screening services to under-served communities, including ethnic minority communities and physically disabled children in Hong Kong, Mainland China, and developing countries.
Social Sciences	Community Psychology	Elderly residents of Kwai Tsing District	Students plan and deliver a health promotion project for residents, and conduct a community needs assessment targeted at improving their living environment.
Social Sciences	Engaging with Diversity	Ethnic minority children	Students provide activities designed to reduce discrimination and address structured inequalities. Example activities are Chinese language teaching or personal tutoring for school children from ethnic minority backgrounds, and programmes to improve community communication.
Social Sciences	Enhancing Resilience of Left-behind Children, Youth and Elderly in Disaster-prone Areas	Communities that are regularly impacted by natural disasters, such as flooding, typhoons, and earthquakes	Students run programmes for children and the elderly in disaster-prone areas such as Sichuan in Mainland China, or Luzon in the Philippines, to address the impacts of recurring natural hazards on bio-psychosocial well-being.

Discipline	Subject Title	Target Recipient	Service Project
Social Sciences	Promotion of Children and Adolescent Development	Children and adolescents from underserved communities	Students develop and deliver educational and supportive services, such as day camps, to help service recipients unleash their potential. It has been expanded into Mainland China to serve the children of migrant workers in cities.
Social Sciences	You Can Make a Difference to Our Planet	Lower-income families	Students address food waste problems in Hong Kong soliciting donations of unsold foodstuffs from wet markets for redistribution to lower-income families while educating the public on the importance of reducing and recycling food waste.

Table 1

Dr Jin Lam, Associate Professor of the Institute of Textiles and Clothing (ITC), now the School of Fashion and Textiles, teaches the innovative subject ITC2S02 Community Engagement through Expressive Textile Arts and Fashion. She is teaching students to use fashion and art as therapy for recovering mental patients and other underprivileged communities, in the process helping them to build up capabilities and confidence. Starting with innovative projects in Hong Kong, she is branching out to communities in foreign countries with exciting ethnic and cultural backgrounds.



Figure 7-3. Fashion Design as Service – one of the many fashion shows organised on campus, this one in July 2016. This is one of the most distinctive and popular Service-Learning subjects. The School of Fashion and Textiles, through their pioneering teachers such as Jin Lam, Frenzy Cheung, Patrick Hui, and others, have created some very interesting subjects and associated projects.

Professor Horace Mui and Dr Ling Tim Wong, Professor and Associate Professor, respectively, of the Department of Building Environment and Energy Engineering, partnered in teaching two Service-Learning subjects for many years, creating many innovative projects, both locally as well as internationally. The subject BSE2S01 Science for Healthy and Sustainable Living Environments serves local schools through environment-themed STEM projects, supported by many purpose-designed sensors and equipment. The subject BSE3S02 Living Environment for Low Income Communities in Developing Regions installed water filtration systems for villagers in Cambodia, where water is plentiful but not suitable for human consumption. They also replaced primitive three-stone stoves with more efficient “rocket” stoves in Rwanda, where basic human needs such as energy for cooking remain a core challenge.



Figure 7-4. Water filtration system installed in a village in Kampong Speu, rural Cambodia, an hour west of Phnom Penh, as part of a project led by Dr Ling Tim Wong and Professor Horace Mui of the Department of Building Environment and Energy Engineering. This project, in 2018, was one of the largest in scale, in terms of the material and equipment involved. Most of the materials were purchased locally.



Figure 7-5. (a) A “Rocket” stove built with bricks and mud is cleaner and more efficient, and replaces (b) 3-stone cooking stoves in rural Rwanda, which take a lot of time, consume a lot of vegetation, and generate a lot of smoke and pollution.

**Figure 7-6.**

(a) The beautiful rice fields of Myanmar. (b) Teaching digital story-making in a high school in Myanmar, in collaboration with students from Dagon University, supported by OSL staff Alison Ip and Artemis Kuo. Unfortunately, the project had to be suspended due to the political situation in the country.

**Figure 7-8.** PolyU students running day camps for children in various cities in Mainland China such as Hangzhou, Shanghai, Xi'an and Chengdu.**Figure 7-7.** PolyU students in a team led by SHTM teacher Raymond Kwong serving at Mai Sen hospitality school for underprivileged youths in Ho Chi Min City, Vietnam, 2015. SHTM teachers, such as Raymond, Pearl Lim, Barry Mak, and others, have carried out several very interesting and unique projects in various countries, offering students a rich cross-cultural learning experience.**Figure 7-9.** One of our largest projects in Mainland China. This one in Chengdu, Sichuan Province, led by Professor Daniel Shek, Associate Vice President (Undergraduate Programme), Chair Professor of Applied Social Sciences, and Li and Fung Endowed Professor in Service Leadership Education.

A Fallacy – Running out of People to Serve

At the beginning, one of the objections to implementing Service-Learning in PolyU went like this: *“Hong Kong does not have the type of extreme and extensive poverty that exists elsewhere in the world such as in the inner cities in the USA. There is no strong need for Service-Learning on the large scale contemplated.”* A highly successful chair professor had voiced exactly this argument in a PolyU management workshop. The worry was that there is insufficient “demand” for the service that our students are offering.

Another related concern expressed by even some of our very senior external advisors goes like this: *“With so many students at PolyU required to engage in community service, when other universities also get involved in Service-Learning, we may encounter strong competition in finding enough people to serve.”*

The worry here is that there may be too much “supply” of service offered by our students. Although the basis of the two arguments differs, the concerns are similar – there may be an oversupply of service for limited demand.

It is true that Hong Kong is one of the wealthier cities in the world. In Hong Kong, we do not have a lot of people who are starving for lack of food. Neither do we have a lot of crime-infested slums where people are afraid to go. However, we do have 1.4 million people (out of a population of seven million) who are below the poverty line. We do have 1.27 million people 65 or more years old, many of whom are without adequate financial, familial, or other support necessary for a life with dignity. We do have 400,000 people with a wide range of mental and physical disabilities, according to the Census and Statistics Department survey in 2001. We do have more than 10,000 refugees and asylum seekers who have nowhere to go and who are not allowed to earn an income. We do have more than 1,000 registered street sleepers the number of whom is rising. We do have more than 280,000 who live in subdivided flats or similar undesirable housing. It is highly unlikely that any time soon we will run out of people who need help. Then, there is also Mainland China to the north with 1.3 billion people and their tens of millions of disabled people.

PolyU sends 4,000 students each year on Service-Learning projects, each serving for 40 hours over one year. This is a very small number when compared with the tremendous need. We have been running our programme for close to 10 years now and several other universities in Hong Kong have also been expanding their own Service-Learning programmes in their own ways. If a massive expansion of Service-Learning among universities in Hong Kong really happened, it might conceivably expand the number of students involved each year by as many as 10 times, to a scale of 40,000 students offering 40 hours of service each year.

At this scale, we would be nowhere near exhausting needy communities to serve. Such an increase would be welcomed by the community, rather than creating damaging competition among the universities. The challenge that we do face is in matching our expertise to the appropriate community or developing new skills to serve a need that we feel compelled to meet. So far, the issue that has frustrated our team and professors teaching Service-Learning is a feeling of powerlessness when up against such enormous need that we can never fully satisfy. After spending four years installing solar panels and wiring up 500 houses to provide basic electrical power for a village with a population of approximately 2,000, we realise there are thousands of villages like this one in just one country with a population of over 10 million. The fear that we will ever run out of people to serve is truly a fallacy resulting from our own poor grasp of reality.

Easy Subjects?

One of the real challenges that we face is rather mundane. We try very hard, and have a rigorous process in place, to ensure that Service-Learning subjects are academically sound and challenging. However, there are always some subjects or teachers that are perceived by the students as being easier than others. They can be easier in the sense that the work is less challenging, which can be objectively true or may only be a perception. Perhaps a smaller amount of work is required. Perhaps a lower degree of difficulty is demanded.

Perhaps it is mainly group-work as opposed to individual work – thus making it is easier for a student to “free-ride”. A subject can be “easy” simply because the grading is more lenient – perhaps many A grades are awarded. In this sense, the situation faced by Service-Learning subjects may not seem much different from other types of academic subjects in terms of student preferences towards certain subjects perceived as being “easy”.

Perhaps the work is more straight-forward rather than cognitively challenging. Perhaps the work is more closely prescribed rather than open-ended. This aspect may be particularly relevant for students in Hong Kong and perhaps Mainland China, where the dominant mode of learning is often considered to be closed-form, prescriptive with definite right and wrong solutions. Many students trained in this manner tend to favour Service-Learning subjects where they are assured of being able to carry out their tasks successfully in a definitive, step-by-step manner. This type of project, unfortunately, is somewhat artificial, with the real problems of the world being typically messy, ill-defined and even “wicked”.

The situation may be made more complex by the very nature of Service-Learning. Service-Learning is experiential, rather than theoretical, involving considerable interaction with people, challenging students with unfamiliar and uncomfortable situations, and compelling students to examine their own assumptions, values, and beliefs. Such challenges may invoke strong emotional responses from students.

Of course, many students do choose a subject based on their interest and do not mind working hard on something that interests them. However, human nature being what it is, certain subjects are over-subscribed because they are perceived as “easier” subjects. At one point, we encountered a situation where students literally sold their places in such highly desirable subjects to each other through a black market. As soon as we became aware of this, we quickly changed the registration procedures to plug the loophole that allowed such an undesirable practice to occur. Fortunately, and hopefully, such practices are rare and quickly identified.

The University, of course, has procedures in place to attempt to ensure that no Service-Learning subjects are unreasonably easy, that all Service-Learning subjects are academically sound and demand comparable amounts of work. Aside from the issue of parity, it is understood that a reasonable degree of challenge to the students’ assumptions, values, and beliefs is necessary for serious reflection and civic learning. In this regard, it is stipulated that a Service-Learning project should not simply consist of routine work that does not require rigorous cognitive challenges. Enough work should be made available to all students such that it is not easy for students to free-ride. These guidelines and criteria are made known to teachers and administrators of subject-offering departments at the time of subject proposal as well as also on a regular basis after a subject is approved and is being offered.

Consistency in Assessment

Consistency in assessment across Service-Learning subjects is an issue that continues to pose a challenge and will probably remain so. Related to this is the challenge of communicating to the students the expectations of a subject. This boils down to the practical question of what type of work truly deserves an A, B, C, or, in rare cases, failure, grade. It seems particularly difficult for students to understand this issue in the context of Service-Learning. Perhaps because it is a pedagogy with which many of them do not have a lot of experience, with a student probably taking no more than one or two Service-Learning subjects in their four-year undergraduate programme and therefore having little exposure to allow them to become very familiar with it.

A number of measures have been taken to address consistency in grading. Clear rubrics and metrics to be used for assessment are required from the subject teacher for each subject. Workshops are conducted for teachers periodically on issues including assessment practices and development of criteria and metrics. At the end of each term, the grade distributions of Service-Learning subjects are reported to the Committee on General University Requirements, which is responsible for the quality control of Service-

Learning subjects, together with other general education subjects. Subjects with grade spreads that appear to be unusually high, unusually low, having an odd distribution, or otherwise out of the ordinary may attract scrutiny. PolyU practises criteria-referencing assessment and so, in theory, the grade distribution for each subject does not have to conform to a specific norm. In practice, PolyU wishes to avoid the perception that Service-Learning grades are too arbitrary or subjective. If the same group of students take two similar subjects, their performance in one is not expected to differ significantly from the other.

There are some challenges that may be specific to Service-Learning. Many students who are initially indifferent during the class and preparation phases often come alive and become very engaged when the actual service starts and the students begin to interact with the community, beginning to truly appreciate the societal issues they are aiming to address. The students' enthusiasm can be greater than that they exhibit in other academic subjects. Many teachers are pleasantly surprised by this elevated level of enthusiasm and greater effort; grading patterns may sometimes reflect that. There is also a tendency among some teachers to mistake effort for actual learning; it is not uncommon to hear teachers explaining higher grades awarded to the class by pointing to the great enthusiasm and effort demonstrated by the students, rather than superior performance according to the learning outcomes. There is, of course, a strong relation between the amount of effort put in by the student and the learning outcome, but this is far from guaranteed.

One of the techniques practised by some teachers to better communicate the expected standard of performance to students is discussion of samples of work, often with a sample produced by a previous cohort of students taking the same subject being presented to the class. The students are asked to assign grades to the sample based on the grading metrics announced by the teacher. The teacher then reveals the actual grade assigned and how the grading metric was applied. Discrepancies can then be discussed and hopefully reduced. Disagreement is perhaps unavoidable but students generally appreciate efforts made by teachers to better communicate expectations.

7.2 Research on the First Cohort

Critical Success Factors

In 2010, PolyU made the bold decision to make Service-Learning credit-bearing and compulsory. Financially, it has committed substantial funding to finance the offering of 60-plus academic subjects to 4,000-plus students each year. It is proper to ask whether the effort is yielding the desired outcome. We have been monitoring the programme since the beginning and the results have been very encouraging. Collected through pre- and post-surveys, the data indicate that students are achieving the four major intended learning outcomes: academic/intellectual, social, civic, and personal. Student performance as measured by the subject grades has been more than satisfactory. In fact, average grades for Service-Learning subjects tend to be a bit higher than those for other academic subjects. Student satisfaction as reflected through scores on the "Subject Feedback Questionnaires" completed by students at the end of each semester are also positive. We have conducted interviews with students, teachers, and partner NGOs and the results are again positive. Overall, PolyU can be satisfied that the Service-Learning Requirement is achieving the intended outcomes. Service-Learning works for PolyU.

However, we wish to understand better how the learning outcomes are achieved; for example, which factors are critical for achieving which of the intended learning outcomes? Partly this desire is out of intellectual curiosity; when we know something works we want to find out how it works. Partly, it is also to identify ways to achieve even better results. In the 2014/2015 academic year, we conducted a study to identify the key pedagogical elements influencing the student learning outcomes. The target participants were 2,880 students enrolled in 55 credit-bearing Service-Learning subjects offered that year. A total of 2,214 valid returns were received, with a response rate of 76.9%. Participants were invited, at the end of their subject, to complete a post-experience questionnaire that required them to: (a) indicate the quality of different aspects of their learning experience, and

(b) rate their attainment of the intended intellectual, social, civic and personal learning outcomes as well as their overall learning gains as a result of participating in the Service-Learning subject. Pearson's product-moment correlation and multiple regressions were performed to identify and compare the relative contribution of the various factors that were identified as influencing students' learning experience and their attainment of specific Service-Learning learning outcomes.

The analysis showed that students' learning outcomes are influenced by a range of pedagogical elements, some more influential than others, and the relative impact of the different elements are not uniform across different outcomes. Of the pedagogical elements that we studied, 14 are significantly associated with at least one of the four Service-Learning outcomes. Basically, students' self-reported gain

- in intellectual development was most strongly influenced by “preparing students adequately for service”, “challenging and meaningful tasks” and “perceived benefits of service to the community/service recipients”;
- in social development was most strongly associated with “relationship with teammates” and “motivated and supportive teammates”;
- in civic development was found to relate most strongly to “challenging and meaningful tasks”, “perceived benefits of service to the community/service recipients”, “appreciation by collaborative agency/recipients” and “preparing students adequately for service”; and
- in personal development was mostly influenced by “student effort in planning, preparing and delivering the service”, “challenge to try things never done before”, “challenge and meaningful tasks” and “perceived benefits to the community/service recipients”.

Pedagogical features of SL Subject (n=14)	Students' SL Outcomes			
	INTELL	SOCIAL	CIVIC	PERSONAL
Interest in SL subject/project	••	•	••	•
Service related to major	•	ns	•	ns
Perceived benefits to people served	•	•	••	•
Service appreciated by community	•	•	••	ns
Preparing students for service	••	•	•	•
Motivated and supportive teammates	ns	••	ns	•
Good personal relationship with teammates	ns	•••	•	ns
Interaction with service recipients	•	•	•	•
Student autonomy in service tasks	•	ns	ns	ns
Challenging and meaningful tasks	••	•	••	••
Challenging students to try new things	•	ns	•	••
Student effort in service	•	•	•	••
Regular reflection	ns	ns	ns	•
Structured reflection with clear instructions	•	•	•	ns

Note: • Beta < .10 •• 10 < Beta < .20 ••• Beta > .20 ns: not statistically significant

Figure 7-10

Based on these results we make the following recommendations to teachers of Service-Learning subjects:

1. Involve students in challenging tasks.
 - a. Require students to apply knowledge and skills to deal with complex problems in the service setting.
 - b. Challenge students to move outside their comfort zone and try new things.
2. Design meaningful services that meet genuine community needs.
 - a. Students will work harder and learn better when they think their service is meaningful, valued, and appreciated.
 - b. Prepare students well for the service.
3. They will have a better understanding of the clients and the target community.
 - a. This will equip them with the knowledge and skills necessary for planning and implementing the Service-Learning project.
 - b. Engage students in direct interaction with clients.

- 4 Their understanding of social issues and problems will be reinforced.
 - a They will be more ready to develop empathy for the needy.
 - b They can then provide direct feedback on the service.
- 5 Motivate students to invest more time and effort in service.
 - a Long service duration and sufficiently profound experience both have positive impact on student learning.
- 6 Engage students in deep critical reflection through structured reflection tasks with clear instruction.

For the University as a whole, since student interest is associated with student learning outcomes, it also supports the provision of diverse Service-Learning subjects & projects, so as to afford more choices to students.

One of the most encouraging results was derived from the observation that almost all of the subject-level factors are generally under the control of the teacher. One of the beliefs about Service-Learning is that students come with prior perceptions and attitudes. If they are interested in the subject and are motivated, then the fortunate teacher can help them achieve good outcomes; if, on the other hand, they do not, then there is not much that the unfortunate teacher can do to change that. The study suggests that this belief may not be completely true. There is indeed much that a teacher can do to provide students with a positive learning experience with good learning outcomes, even when some students come to the subject with an unhelpful attitude.¹

¹ The results of this study were published in the paper "A Multivariate Study of Factors Influencing Students' Learning Outcomes from Service-Learning (SL)", presented at the International Association for Research on Service-Learning and Social Engagement (IARSLCE) 2016 Conference, September 26-28, New Orleans, Louisiana, USA.

Does Compulsory Service-Learning Work?

Educators have strongly-held views on whether Service-Learning should be required for all students. Some believe that when students with unfavourable views of Service-Learning are compelled to take the subject, they may resent it and the experience is unlikely to lead to positive outcomes. Even for students favourably inclined to Service-Learning, being required to do it may distort their motivation, leading to undesirable outcomes. On the other hand, others believe that many students, not having experienced Service-Learning first-hand, may not have an accurate understanding of what it really is and, as a consequence, resist it. When they actually experience it, however, even if reluctantly, they may become convinced of its benefits; at least they can make an informed decision based on genuine understanding. Based on our own experience teaching Service-Learning, as well as research on the critical factors impacting student learning outcomes, we believe that the extent to which students benefit from Service-Learning may depend more on the quality of their learning experience than other pre-existing factors such as their attitude towards Service-Learning. However, studies examining students' views of mandatory Service-Learning are limited in the literature.

We decided to conduct our own study to contrast students' views towards the Service-Learning requirement before and after taking their mandatory Service-Learning subject, and examine whether and how their views might change as a result of the experience. This was a retrospective qualitative study using semi-structured interviews with 49 students who completed a Service-Learning subject in the 2013/14 academic year. They were selected according to the nature of the subject they had completed and their course grade. We selected 18 (out of a total of 32) Service-Learning subjects to ensure a broad coverage of different disciplines and a wide range of intended beneficiaries of their service projects. We classified the students in each subject into higher, average, and lower performance groups based on their grade in their Service-Learning subject and randomly selected three students, one from each group. Invitations were sent to 198 students, of whom 49

finally accepted the invitation and attended an interview. The participants were assured that their personal information would remain confidential.

The students' recollections of their initial views of Service-Learning were classified into one of three categories: positive, passive-acceptance, and negative. One of the students with an initially "negative" view stated: *"I found Service-Learning very worrisome. I was afraid I might meet some agonising people. I was also worried about the problems or difficulties I might face."* One of those in the "passive-acceptance" category explained: *"I don't know much about Service-Learning. It is just ... an obstacle that I need to clear in order to graduate."* The students' post-experience views were similarly classified into one of three categories: positive, ambivalent, and negative – corresponding to the three categories of initial views.

The results show that students' views of Service-Learning are not static but rather change dramatically because of their experiences. Most students, particularly those who recalled a negative or passive acceptance stance in their initial views, reported positive changes in their views towards Service-Learning after completing the subject. The results clearly indicate a very positive shift in students' views about Service-Learning because of their experience. Among those who recall having an initially negative stance, none of them remained negatively inclined towards the Service-Learning requirement after taking their subject.

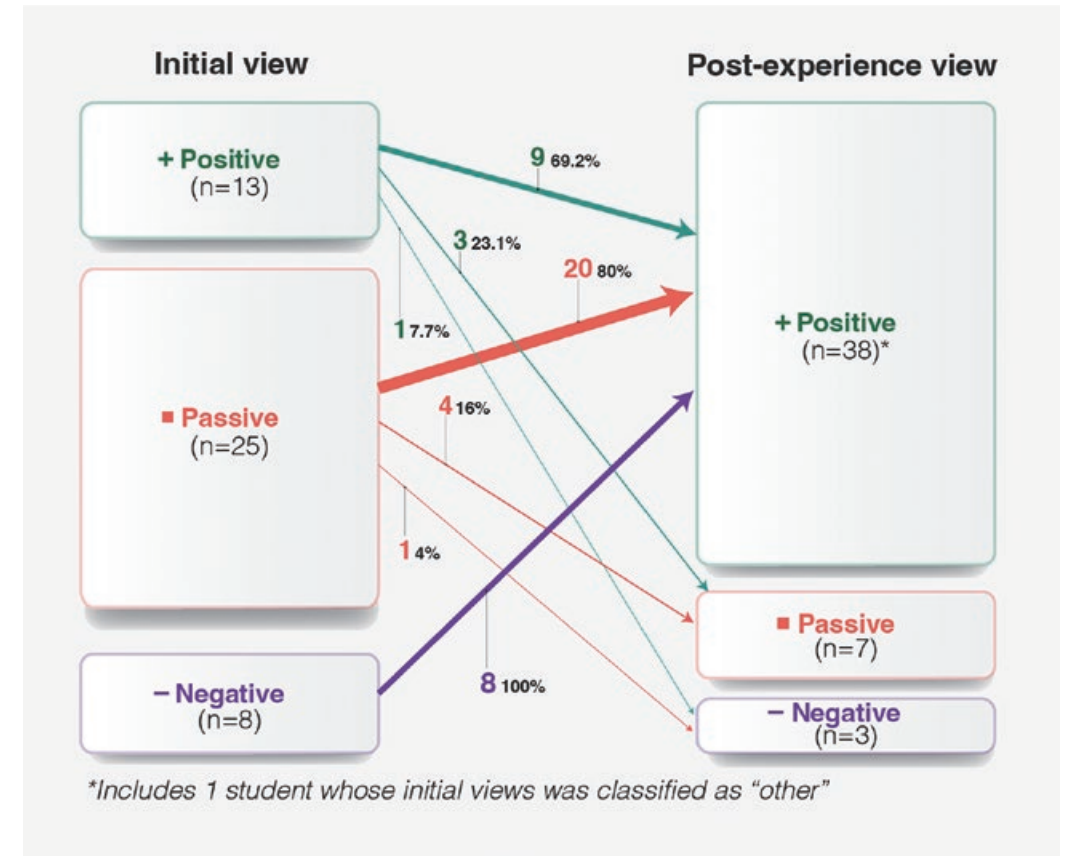


Figure 7-11

According to a student who had an initially passive-acceptance view, a student majoring in Radiography and a high achiever in a Service-Learning subject offering health assessment and rehabilitation programmes to the elderly or people with disabilities: *"This service turned out to be a pleasant surprise for me: from no expectations to great gains; the whole experience is very positive. The result is good, and I don't mind doing it again. At the beginning, I thought that it was just a trick played on students; but later, I realised that it had provided students with an opportunity to learn. All the good things and shortcomings I have mentioned about the experience are unforgettable memories in my university life."*

Some students shared the insight that they had been inspired by knowing first-hand how their disciplinary knowledge could contribute to the betterment of society and felt that the Service-Learning experience added meaning to their discipline. One student, a high-achiever in a Service-Learning subject teaching robotics to university students in Myanmar explained the effect the subject had had on his outlook on life post-graduation: *“I study Electronic and Information Engineering. ... I used to think I have few options after graduation, apart from working in factories in the Mainland. After taking this Service-Learning subject, I realise that I can do a lot of things... Indeed, life can become much more convenient because of the things I’ve made.”*

Some students referred to the Service-Learning experience as providing them with an opportunity to understand and help a group of people whom they did not know much about or even were afraid of before. Some reported that the experience had changed their way of viewing the service recipients. According to a high achiever in a subject using textile art and co-design as therapy and empowerment for people recovering from psychological disabilities: *“I worried about whether it would be difficult to communicate with them... I was a bit scared... Actually, they are normal people; they fell ill because of emotional problems but now they have recovered. The medication might have caused side effects for some of them. They were unfortunate, but not scary.”*

Some students pointed to the fact that Service-Learning challenged them to reflect on their own attitudes and provided an opportunity for self-reflection and clarification of their personal values. One student majoring in computing and management and a high-achiever in a Service-Learning subject teaching sciences to the children in Cambodia enthused: *“It does not impose the values on me but rather, stimulates me to reflect on my own attitudes and values, and to think whether I need to change my values. It has given me new ideas and insights, and more choices...It has been a very stimulating experience indeed.”*

A small number of students expressed a negative view towards Service-Learning after the subject – because their actual experience fell short of their expectations. For example, a student who took part in a Service-Learning subject on engineering for society and expected to have ample opportunity to meet and interact

with the beneficiaries was greatly disappointed with the service experience: *“I initially expected that I would have a lot of chances to interact with the clients or the needy, or work at the service location to create a tailor-made product for the clients. But it was not the case. I spent most of my time working on computers at the University.”*

Students’ initial resistance alone is not a reason for making Service-Learning optional. From an educational viewpoint, engaging only students who are already interested in Service-Learning is like “preaching to the converted”. It is those who are less inclined to participate in Service-Learning that we should focus on, as they are the ones who may benefit the most from the experience.

Making Service-Learning mandatory can require strong encouragement for the initially unmotivated students to gain experience which, if implemented effectively, can nurture and develop them to become more civic-minded citizens. The critical question, then, is not about required versus voluntary service but rather, how to design and deliver an effective Service-Learning subject or programme that provides a rewarding experience for students and achieves the intended learning outcomes.² †

2 The results are presented in Chan, S. C. F., Ngai, G., Lam, C. H. Y., & Kwan, K.-P. (2021). How Participation Affects University Students’ Perspectives Toward Mandatory Service-Learning. *Journal of Experiential Education*, 44(2), 137-151.

Chapter 8

Internationalisation

In the summer of 2010, while the Task Force on Service-Learning was discussing the possibility of offering academic Service-Learning as a credit-bearing course, we took a team of students to serve in Cambodia, with a very impressive outcome. The experience was one of the key factors which convinced the Task Force that Service-Learning is feasible. In summer 2011, the first year of piloting, we took another team to Cambodia as part of a credit-bearing Service-Learning subject. We have been serving in Cambodia ever since then, on an ever-larger scale and with a greater variety of subjects. We have also been serving in many other countries, applying multiple disciplines, and adopting different modes of delivery.

Since the outset, internationalisation has always been a key element of Service-Learning at PolyU. We take our students to serve away from Hong Kong, in foreign countries. We set up offshore bases in foreign countries for long-term projects, sustainable partnerships, and cross-disciplinary and cross-institutional collaboration. We send our students on Service-Learning exchange to universities and organisations in other countries, where they serve alongside students from foreign universities. Our students learn in online, interactive global classrooms with students from foreign countries, on topics related to Service-Learning and leadership. Our academic staff engage actively with international organisations in Service-Learning. We offer staff development programmes to colleagues from other countries. Through all this, we advocate for and promote regional and international collaboration and mutual learning. Internationalisation is indeed a hallmark of Service-Learning at PolyU.

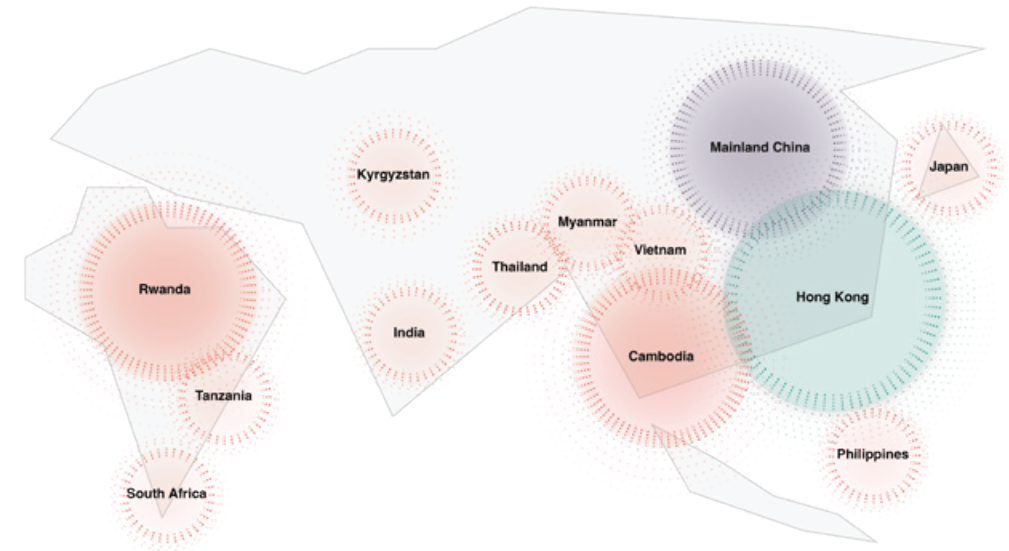


Figure 8-1. PolyU Service-Learning sites across the world. Hong Kong remains our largest site, followed by Mainland China. Outside Greater China, we have the largest number of projects in Southeast Asia, followed by Africa. We also have a number of projects in Central, East, and South Asia.

8.1 UGC Teaching Award

In 2016, a team led by Dr Grace Ngai of the Department of Computing and Dr Stephen Chan of the then Office of Service-Learning (OSL) was awarded the Hong Kong University Grants Committee (UGC) Teaching Award. As stated on the official UGC webpage,¹ “The annual UGC Teaching Award was introduced in 2011 to honour those who excel in teaching in the UGC sector. The Award does not only recognise past and present teaching performance and achievements, but also the teachers’ leadership in and scholarly contribution to teaching and learning within and across universities. The awardees are expected to become ‘ambassadors of good teaching’ to collectively make a real and sustained impact in promoting teaching excellence.”

¹ https://www.ugc.edu.hk/eng/ugc/activity/ugc_teaching_award.html



Figure 8-2. The team of Dr Grace Ngai and Dr Stephen Chan received the UGC Teaching Award 2016, in recognition of their team's achievements in teaching and promoting Service-Learning.

Each year a maximum of three awards are presented. When PolyU nominated the Ngai-Chan team to compete against the nominees from other Hong Kong universities, it was “in recognition of their outstanding achievement in facilitating transformative learning in students and immense contribution to the promotion of Service-Learning as an institutional strategy for developing students into responsible professionals and global citizens”. The fact that UGC decided to recognise their work in this way is a testament to the significant achievements of Service-Learning at PolyU. The Award includes a grant of HK\$450,000 that the Ngai-Chan team used to develop and run a staff development programme for the community of university academics across Hong Kong. The programme comprises workshops in Hong Kong and experiential learning in Cambodia where PolyU has built up a wide range of Service-Learning over many years. There, academics can observe Service-

Learning projects in operation, and meet with the students, teaching staff, NGO partners, and the target communities. They can then develop their own proposal for a Service-Learning subject or project. The programme has subsequently trained a sizeable number of Service-Learning teachers. In later years, it admitted a number of academics from universities from Mainland China, Vietnam, and the Philippines.

Here is what the PolyU team said at the Award ceremony:

Dear ladies and gentlemen, fellow colleagues, good evening. It is an honour to be sharing the stage with such role models as Professor Leung and her team. Likewise, we are proud to share the stage tonight with our own colleague Shirley.

We want to start by thanking lots of people who have helped us along the way. This Award really belongs to all of us. PolyU gave us this opportunity, and their trust. Our colleagues and NGO partners supported us, collaborated with us, and critiqued us. Our students were co-learners and co-travellers along the journey. Our donors, some of whom gave millions, some gave hundreds, but all are equally important. Our families, for their unconditional support, even when they did not always understand.

Our teaching philosophy is actually rather simple. We firmly believe that we should have faith in the younger generation. We believe that they matter. That they have a role. That they can make a difference in the community and in the world.

Our own journey in Service-Learning started before 2005, when we started doing community service projects in Hong Kong. In 2006, we took one step further and brought a team of students to Mainland China.

In 2010, we decided to really dream big and designed a complementary studies Service-Learning subject. This subject had a syllabus and assessment and lectures and everything; it just did not carry course credit. We also noted that global competency and cultural sensitivity would become more critical in the coming years. So we organised one of PolyU's first large-scale international Service-Learning projects, to Cambodia.

We believe that much of this experience helped to convince PolyU that Service-Learning should be a core component of the new 334 curriculum – that all students should be given a chance to learn from it. From our experiences, we developed PolyU's first Service-Learning subject in 2011. That subject has evolved to become one of PolyU's flagship Service-Learning subjects. In 2016, that subject enrolled 150 students, working in projects in Hong Kong, Cambodia, Myanmar, Rwanda, and Kyrgyzstan.

We have been very blessed and rewarded by our work in Service-Learning and we want to share what we have experienced and learned with others. Therefore, very early on, we started taking on an advocacy role. We want to convince colleagues that “if even Grace and Stephen can do it, so can I”. We organised workshops, helped colleagues to plan and design their own subjects and programmes, and opened up our course and invited observers into our class, to shadow us and see how Service-Learning could be taught and managed. All this has helped to build up PolyU's Service-Learning programme — from five courses and 200 students in 2011, we reached full implementation in 2016. We are also seeing the formation of a core of colleagues with a diversity of expertise and experience in various aspects of Service-Learning.

It is well known that reflection is an important part of Service-Learning for students. Some people would even go as far as to say “without reflection, there is no learning.” As teachers, it is even more important

that we take a reflective approach to our teaching. To know what worked, what did not, and to understand why. Therefore, we pioneered research into Service-Learning pedagogy, and we also try to motivate and facilitate colleagues to do the same. We are very grateful to PolyU and UGC for funding our collaborative projects, forums, research salons and conferences. We have learned much from these activities, which have resulted in many publications in international journals and conferences. We are also being invited to share our experiences all over the world, in Vietnam, Myanmar, Cambodia, even as far away as the US, Argentina and South Africa. PolyU is making a name for itself in Service-Learning, and we are proud to be a part of it.

We started out learning to serve. Then we found that there is so much to learn from serving others. We have come full circle. Each cycle feeds on the last, and the snowball grows bigger and bigger. From our own little efforts back in 2005, PolyU has over 60 courses enrolling over 4,000 students in 2016. It is our privilege, and blessing, to be part of something that is far, far bigger than we are.

The Award Grant

The 2016 UGC Teaching Award grant of HK\$ 450,000 was used to further develop and run a staff development programme for the community of university academics across Hong Kong, and not just for PolyU. What was proposed was a Teacher Development Course, originally termed the Service-Learning Development Programme in the proposal, to share the PolyU Service-Learning experience with the wider higher education community in Hong Kong. The target recipients are the community of university academics across Hong Kong's eight UGC-funded institutions. The objectives were to (1) increase the number of staff with the expertise required to design, lead, and assess Service-Learning subjects, and (2) to establish a Service-Learning community of practice among Hong Kong education faculty and other staff.



Figure 8-3. First Teacher Development Course, June 2014, held in Cambodia. Among the four attendee colleagues from PolyU, Dr Phyllis Pang (back row, 3rd from right) and Dr Gilbert Chan (back row, 3rd from left) went on to design their own Service-Learning subject and taught the subject until they retired from PolyU.

The Teacher Development Course consisted of two levels of training and was modelled on our own staff development programme offered through 2012-2015. The course was conducted in the summers of 2017, 2018, and 2019 with three components. The first was a three-hour e-Learning module that covered the theory and pedagogy of Service-Learning. The second component was a multi-day workshop series at PolyU, covering the three major components of academic Service-Learning: (a) the teaching of academic concepts underpinning a Service-Learning subject, (b) the execution of service projects for a target community with an appropriate academic content, and (c) learning through reflection on the Service-

Learning experience. It also involved preparation for the subsequent field work, such as the provision of information on the cultural background of the target community, the technical content, and risk management.

The third component involved field work in Cambodia, where PolyU maintains a large presence and where several teams work on a variety of projects each summer, from information technology installation and training to vision screening, health promotion, language teaching and hospitality education. This is arguably the most valuable programme component, where participants could experience Service-Learning first-hand, try out what they have learned through their reading and discussion, and design new projects. Participants were facilitated in observing students carrying out their Service-Learning projects in the field. They would meet with the Service-Learning subject teachers to better understand how frontline teachers plan and supervise the projects, and were offered the opportunity to sit in on reflection sessions to observe how these delicate interactions unfold. They also visited NGO partners with experience working with higher education institutions. Throughout the whole process, each of the participants was asked to develop a proposal for a new Service-Learning course or project. As they undertook the field work, observing the students, meeting with the teachers and NGOs, they further developed their own proposal. By the end of the field work component, participants had developed a proposal that could be presented to the rest of the class and had collected feedback from the class as well as the course teachers.

After running three programme cohorts, each of roughly 15 to 20 participants, we built up a sizeable community of Service-Learning practitioners. We are also very pleased to have witnessed several Service-Learning courses and projects subsequently being developed by the participants themselves at their own institutions. The community has kept in touch through various means including via social media and attendance at workshops and conferences. Some have even gathered to bid successfully for a major grant from the UGC to further strengthen the capacity of university academics in Hong Kong to teach and research Service-Learning. The Service-Learning movement is gathering speed in Hong Kong.



Figure 8-4. Teacher Development Course – offered essentially annually since 2014. Participants have been from PolyU, other universities and organisations in Hong Kong, Mainland China, Vietnam, the Philippines, and India. This class was held in June 2019, in Cambodia, before the COVID-19 pandemic.

One of the pleasant surprises through the Teacher Development Course is that we have been able to accommodate participants from outside Hong Kong. Since this programme was designed for academics from Hong Kong, we did not promote it beyond Hong Kong. Nevertheless, we have a lot of partners in relevant Service-Learning projects in various parts of Asia and many have expressed interest in this course. We ended up taking in a several from Mainland China, Philippines, and Vietnam into the course. They have enjoyed the course and we have been in communication ever since.

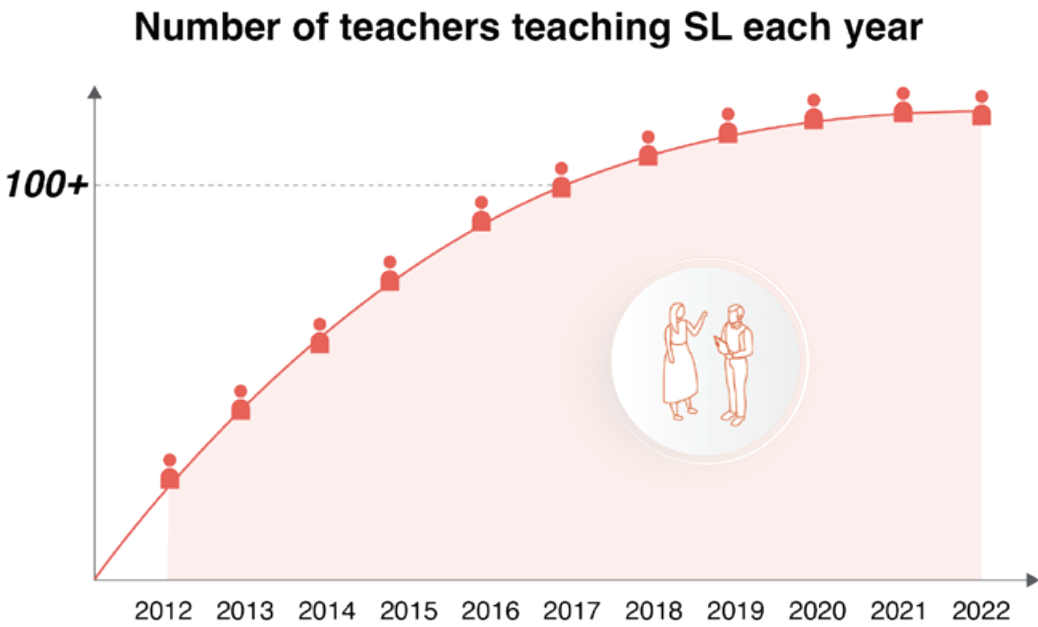


Figure 8-5. The number of teachers teaching Service-Learning subjects at PolyU itself rose rapidly each year in the first few years, and then has continued to grow but at a slower pace.

When the UGC grant was exhausted, we continued to run the Teacher Development Course, because the need continues to exist. In fact, it is increasing in the region as more universities adopt Service-Learning. During COVID-19 we ran the programme online for a few years. As soon as travel restrictions were eased, we restarted the programme face-to-face, on site in Cambodia, in summer 2023, with participants from the Philippines, Vietnam, and India, in addition to those from Hong Kong.

Cumulative number of alumni of TDC

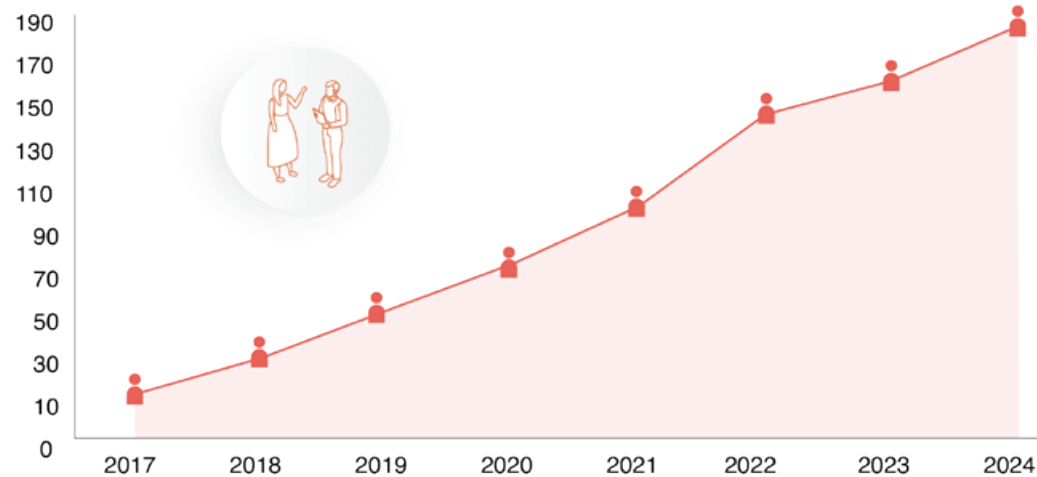


Figure 8-6. The cumulative number of “alumni” from the Teacher Development Courses continues to grow, with an increasing number of participants from outside PolyU.

8.2 Virtual Global Classroom with the University of Maryland

Our collaboration with the University of Maryland (UMD) started in 2016, with OSL and the Department of Computing from the PolyU and (mainly) the Leadership Studies Programme from UMD beginning to work together. Students at PolyU enrol in a PolyU credit-bearing service-learning course, while UMD students enrol in a credit-bearing UMD Global Leadership course. The two courses are jointly taught by professors from PolyU and UMD online. Since 2016, the collaboration has developed in several ways and expanded into collaboration with other universities.

In 2016, the teachers from PolyU were Dr Grace Ngai of the Department of Computing and Dr Stephen Chan of OSL, who were the co-teachers of the Service-Learning subject Technology Without Borders. On the UMD side it was Dr Natasha Chapman and PhD candidate Anne Spear, co-teachers of their Global Leadership in a Virtual Context course. It was decided that each side would send a team to work together in Rwanda to set up a community learning centre in May 2016. The centre would have a self-contained computer system with a server and a number of client computers based on inexpensive micro-computers, the Raspberry Pi. Essentially, the server would be a “self-contained internet-in-a-box” without expensive broadband connections to the actual internet and powered by a solar panel electrical system. PolyU would be responsible for setting up the system, and UMD for developing the training classes for the local youths.

We started running classes via video-conferencing in March 2016. In the first class, we taught our own students in Hong Kong and the UMD students in Maryland (remotely, online) to construct a computer using a Raspberry Pi micro-computer, a small touch screen, a keyboard and a mouse. Then, in the second class, we introduced to them the solar panel charging system that we had designed and installed in 2015.

In two subsequent classes, the UMD teachers taught the joint class global leadership topics that included, for example, the danger of believing in a stereotypical “Single Story” about a foreign culture, such as “All Africans are black, poor, and poorly educated”, “all Americans are outgoing, talkative, and ignorant about other cultures”. The students participated in readings, lectures, exercises, and class discussions to explore the issues, relevant personal experiences, and avoiding falling into the trap of single stories, while also learning teamwork and leadership skills to prepare them to collaborate with people across diverse cultures.

In summer 2016, both teams set off separately to meet in Rwanda, ready to meet each other face-to-face for the first time, and to work together on the challenging project.

Natasha Chapman and Ann Spear – Natasha was a staff member at the Leadership office and Ann was a PhD student at the University of Maryland. They were collaborators on joint service projects in Rwanda and Cambodia, where they took small teams from UMD to work alongside PolyU students. They were also teachers of a global leadership course at Maryland on a joint Global Classroom, in conjunction with a subject on Service-Learning at PolyU taught by Grace Ngai and Stephen Chan. Together we tried out a number of innovative practices in Service-Learning and wrote up some of the results in research publications. This team seemed particularly willing to try out innovative practices in many forms.

Setting up a Community Learning Centre in Gicaca, Rwanda

Although they had got to know each other online through the joint virtual classes, exercises, discussions, and technical and other preparations for the project throughout the spring of 2016, the two teams from PolyU and UMD met for the first time when each found their ways separately to Rwanda towards the end of May 2016. The PolyU students and the UMD students worked side by side in the final preparations at the guest house where they stayed. They installed the micro-computers at the community centre and solar panels on its roof to power the computer network. Finally, together, they ran workshops to teach the local youths how to use the computer network and the associated resources.

At one point, the PolyU students became a little upset with the more direct and forceful style of the UMD students. They did not quite know how to respond and sought advice from their teachers, who discussed with them the possible differences in cultural background and individual personalities that might have led to the different approaches to them working together. The PolyU students were encouraged to politely and honestly share their feelings with the UMD students and

try to arrive at a mutually agreeable method that would accommodate different opinions while ensuring successful and smooth delivery of the promised services. Eventually, the two groups were able to work out their differences and went on to enjoy their partnership.

The global virtual classroom and the setting up of the community learning centre in Rwanda were both experiments undertaken by us for the first time. Both sides must respect the other as an equal partner and adapt to the working style of the other side. There were quite a few challenges for them to overcome. The technical challenges of getting acceptable video and audio quality, the setting up of the classroom for both face to face, and online interactions for many participants, are non-trivial examples. The meshing of complementary strengths – Service-Learning/technical on the PolyU side and leadership education on the UMD side - is one of the strengths as well as challenges in this project. In the end, we succeeded, learned a lot from the project, and decided that it was a direction that we wanted to continue to develop.

UMD was able to bring only a small team of two teachers and three students for this experimental collaboration, while PolyU brought 20. Hence UMD only participated in the setting up of the community learning centre. The PolyU team, however, sent out two other teams. The larger team installed solar panels and indoor wiring to provide electricity for lighting and phone charging for 120 households. Another team went to a local primary school at Gashora, about 50 kilometres south of Kigali, to set up another computer network for a school there.

Solar Charging Stations in Gicaca, Kigali

We had been undertaking solar panel projects in Rwanda ever since we went there for the first time in 2013, when we brought several small integrated briefcase-sized solar panel-battery-LED light packs originally developed for use in Cambodia. We deployed them at the Center of Champions Primary School run by African Enterprise Rwanda in Rwamagana, a city an hour to the east of the capital Kigali. In 2014, we installed two roof-top solar panel systems and associated

computer networks, one for each of two primary schools in the remote mountains of Gikomero, an hour to the north of Kigali, where there was no electricity in the whole community. In 2015, we installed a solar electricity system for 44 households, equipped each of the houses with a car battery, and wired up the houses with basic electrical infrastructure: several “manufactured in PolyU” low-consumption LED lights and a USB charger for cell phones, all powered by the battery. The solar panel is movable, so that it can be brought out to operate under the sun during the day and taken back in during the evening for safe-keeping.



Figure 8-7. Installing the first set of solar panels for a primary school in Gikomero, Rwanda, 2014. One set was installed for each of two primary schools in the area. Youqian Zhang, on the ladder, was an undergraduate student at the time. After graduating from PolyU, he went on to earn his D.Phil. from University of Oxford. While pursuing his academic and research career, he continues to assist in the teaching and development of Service-Learning at SLLO.



Figure 8-8. Installing a set of solar panels for a primary school in Gikomero, Rwanda, 2014. On the ladder – left: Dr Youqian Zhang, right: Professor H. C. Man (Dean of Engineering). On the ground, from the left: Dr Grace Ngai (Head of SLLO), Dr Stephen Chan (former head of OSL/SLLO), and Professor Walter Yuen (former VP Academic Development).

By 2016, we had fine-tuned our design and greatly expanded the solar power project. Our partner, African Evangelistic Enterprise (AEE) Rwanda helped us select four neighbourhoods in Gikomero sector in Kigali city’s Gasabo district, which is more than an hour away from the city centre over very rough unpaved roads. Most of the 120 households to whom we intended to provide electrical power live off the road, requiring us to hike up and down steep slopes to get to them. We installed a solar charging station for each neighbourhood. We put 12 20-watt solar panels on the roof of the house chosen as the charging station, each of which can charge five batteries at the same time. We wired up each of the 120 households with four LED lights and phone chargers, powered by a solar battery. These households could then bring their batteries to the charging stations to be charged and then take them home to power their LED lights and phone chargers. This way 30 households could share the same set of solar panels, enabling us to provide as many households with electricity as possible. For the first time in their lives, the villagers had electricity, no longer having to eat in the dark and go to bed right after dinner. They could meet neighbours for a chat after dinner and their children could study at night. The emotion that we felt witnessing their joy is very hard to describe. Our students were visibly touched.

We assembled the solar panel systems at the guest house where we stayed overnight, brought the almost-completed assembled solar panels to the station, performed final assembly, and then proceeded to hoist them up onto the roof. The solar panels were heavy. We positioned a crew on the roof, a crew at the top of the ladders, and a crew at the foot of the ladders. With coordinated movements, we managed to secure the solar panels on the roof quickly. Our students then proceeded to teach the local youths to wire up the station, install charge controllers, and install the LED lights. It was exciting to see the system gradually taking shape. In the end, as noted above, 120 households were equipped with electricity for lighting and phone charging, and a team of local youths acquired the technical skills to install and maintain the systems. Our goal has not just been to give the community access to electricity but also help them acquire the knowledge and skills to do it themselves, giving them a greater sense of independence and autonomy.

The sun is so strong in Rwanda that even when upside down and facing away from the sun, the solar panels were generating enough electricity to light up a bunch of LEDs. It would really be illogical to not make use of this powerful energy resource and so from the charging station where the solar panels were installed, we connected a cable to another house roughly 30 metres away, hanging the cable on a tree halfway so that it did not hang too low. By now, the local youths were so familiar with the wiring that they could do most of the work under the guidance of our students and sometimes even without any guidance. Many of them had graduated from secondary school but for a variety of reasons were not in university, perhaps because there were simply not enough places for all the youths. Given that jobs are also hard to find and that most of them helped out on their family's farm while doing odd jobs and looking for opportunities, they treasure the opportunity to learn about solar energy and electrical power systems.

The solar panel project in Rwanda is one of the most satisfying projects that we have undertaken. We can make use of professional engineering knowledge and skills to address a very strong social need. The project is challenging technically, organisationally, logistically, and in so many other aspects. The benefits to the

community are obvious, immediate, and long-term. From our side, our students get to learn about a completely different culture on the opposite side of the world, see the aftermath of a horrible genocide and how the people work so hard, so positively, to reconcile and move forward, and experience how desperately poor people work so hard to clean up their country and build for the future. We have the privilege and fortune to work with a great local partner, and have developed such a trusting, long term relationship that we can bring more teams to tackle other issues. We have become such great friends and learned so much about resilience, overcoming adversity, and about being positive and optimistic against all odds.

Mountain Village Living in Rwanda

Since going there for the first time in 2013, PolyU has been doing a lot in Rwanda, particularly in the villages in the mountainous areas in Rwanda. Perhaps it is helpful to describe briefly what it is like there. It may be helpful to understand why we are so keen to work over there.

In the mountains in Rwanda, even little children spend much of their time fetching water. It is common to see a little girl carrying a five-litre can, which weights five kilograms, or 11 pounds. Adults typically carry 10 or 20 litres, often for one to two kilometres to get it home. For us city folk, carrying water like this for a few steps can seem almost like fun; it is not fun anymore after the first 100 metres. There are rivers and lakes, and the government has set up water stations at strategic locations but there is no piping or pumps to carry the water to the houses. There is a rainy season but most houses have no ponds or tanks to catch and store the water. Because the roads are unpaved, the heavy rain ruins the roads, making them difficult to drive over.

Most houses are constructed of mudbricks which are dried under the sun, without firing. The houses look reasonably sturdy when new but quickly fall apart in the face of the elements. Windows are small, to make it harder to break in, and because small windows are structurally easier to build and reinforce, while some

houses have no windows. Inside the house it is very dark, damp, and there is often a foul smell, perhaps due to insufficient airflow. The lighting system may consist of one lonely candle or a flashlight with one or two almost-completely depleted dry batteries. The inhabitants may own a treasured radio but often cannot afford the batteries to power it. A lucky villager may own a radio powered by a small solar panel, provided by some aid agency.

The floor inside the house is typically just dirt, uneven and bare. There is little furniture, maybe a bed or a mat on the floor. Most have no closets for clothes, perhaps simply a string pulled across the room or a few hooks on the wall for hanging up clothes. Most have no tables or chairs, no chest of drawers for storage of small items. To keep them clean, there may be one or two toothbrushes stuck in the crevices of the mud-brick wall. There may be a hoe or spade for farm work. For many families, that seems to be the extent of their possessions.

Cassava is a staple food. We may eat it in Hong Kong in the form of tapioca or as the “bubbles”, or “pearls” in boba tea or pearl milk tea. In the Rwandan countryside, it is very common to see raw cassava laid out under the sun to dry. It is then ground into powder and made into a cake or simply boiled for food, in many kitchens in a pot set over two or three stones, fired by dried twigs. Some villagers grow beans, starchy corn, sorghum, potatoes, or peanuts. Very few have green vegetables to eat.

The richer families may have a few goats, pigs, or a cow for milk. A young man must have a cow in order to get married. A family with more than one cow is considered quite rich. Some raise rabbits. It is rare to see a dog and I do not remember ever seeing a cat. Our partner, AEE Rwanda, is helping to set up self-help groups, to start small businesses, raising pigs, growing passion fruit, raising rabbits, and planting vegetable gardens.

The scenery is stunningly beautiful. Upon entering a valley towards the end of the rainy season, seeing the small houses dotted among green fields, one might feel we could live there – particularly if you see it for the first time. So idyllic! So



romantic! As we come closer, however, and see the reality of village living without running water or electricity, we begin to have second thoughts.

However, the people are always dignified, hopeful, cheerful, and kind. The place is always clean with no rubbish anywhere even though there are no rubbish bins. The women wear colourful clothes even in the village. We wonder how they keep their clothes bright and clean when water is so scarce; but they do. The children are particularly curious and welcoming. Our partner, AEE Rwanda, has done wonderful work year after year. We have learned so much from them – both from the community and AEE Rwanda. It truly has been a blessing to be able to come to Rwanda to serve.

Foreign Aid or International Service-Learning?

There are millions and millions of people in developing countries such as Cambodia, Myanmar, and Rwanda, who are off the electrical power grid and will remain so for years to come. When a power line is extended along a trunk road, it benefits the houses along the road. In many countries it is the consumer that has to pay for the cable, equipment, and manpower to connect their house to the power line and it is often too expensive for houses off the road to connect to the power line, meaning that millions of people will remain without electricity for years to come. Some buy a car battery to power lights and appliances, but the batteries and their re-charging is expensive and beyond the means of many.

They cook and eat in darkness when the sun goes down, then most work has to stop. Some manage to buy candles or small electrical torches powered by expensive batteries, or kerosene-fired lamps, just so that they can cook and eat, study, and generally function in a minimal and difficult manner. Life is not much different from that of centuries ago, while the rest of the world has moved on rapidly.

One solution is to buy “off-the-shelf” solar panel systems to give to those in need. Some of these are grandiosely-named “solar power generators”. A typical US\$70 system buys you a small solar panel generating less than five watts, a small

package with a small battery with no more than 10 ampere-hours in capacity, a small radio, a small LED lamp, and a mobile phone charger, all connected into a ready-to-deploy system. Little or no installation is needed. The small panel simply has to be placed outside, the lights hung up, and the switch turned. Many such systems have been manufactured in China.

An alternative, “self-design-and-assembly”, which we have adopted, costs a similar amount to buy but includes 40-watt solar panels, a 26-ampere-hour battery, a small controller, a number of light-emitting diodes (LEDs), a phone charger, plenty of cable, nails, screws, connectors, and hand tools. We teach our students to assemble the solar panels, assemble the LEDs into lighting fixtures, wire up the houses, and teach local youths to do the same and to maintain the systems. (Later, when energy-efficient lightbulbs would become less expensive, we switched to buying the lights to save time.) We then go to each house, work out with the owners where to place the panel, lights, and switches, measure out the cables needed, and spend a couple of hours in each house to install, test, and show the owners how to operate the system. All the time, we work with a team of local youths who translate between our students and the house owners; sometimes they are the owners or residents themselves. They learn the skills from our students, assist, and eventually go on to install the systems by themselves.

The first (off-the-shelf) solution is a case of charity/foreign aid and it clearly benefits the community. It also enriches the manufacturers of the “solar power generators”, some of which are non-profit organisations but most of which are commercial companies. There is little service or learning in that process; rather it is a gift to the poor. The recipients typically would not know what to do if the system failed, or some parts needed to be replaced. There is little to no transfer of knowledge or empowerment.

In the second case of our self-design-and-assembly, the villagers gain a system four times as powerful, for the same financial cost to us. Our students learn valuable lessons about technology, a much deeper understanding of the issues involved, useful skills, and self-confidence through real service. Equally importantly, local youths learn the basics of the solar energy technology and useful technical skills.



Now, there are young people in the village who can fix small problems arising with the system. In one case, a young woman bought a new house with the money earned from trading beans. She took down the system we installed in her old house and installed the whole system in her new house, all by herself, and it worked. The young villagers also make friends with some people from afar.

Gashora Project

In 2016, we launched another new project in Gashora, 1.5 hours south of Kigali. This was in collaboration with the University of Pennsylvania (UPenn). Gashora Girls Academy (GGA) is a top high school in Rwanda, which recruits the brightest girls from across the country, teaching them science and English, and sending many of them to top universities overseas. One of the girls, in our second cohort, who had graduated from GGA in 2015, had just completed her first year at UPenn and returned with the UPenn team in 2016. One UPenn project is designed to improve the computer network at GGA and we sent a small team to work with the UPenn team on this project.

Nearby is a primary school with more than a hundred laptops, donated through the OLPC (One Laptop Per Child) programme. They were hardly ever used, a situation which seems quite common in many of the places we visit. Well-meaning people donate valuable equipment to a community in need; the community does not have the expertise or infrastructure in place to take advantage of the valuable equipment; the equipment sits in a corner hardly being used; and, in the meantime, the equipment gradually deteriorates and becomes obsolete.

Our team installed a file server loaded with a considerable amount of e-learning material, connected to a wireless router linked to the internet with a SIM card. This gives the school the option to connect to the internet for a fee or to operate as a self-contained internet-in-a-box. The students can now make use of the OLPC computers to access the learning material on the file server within their own local area network. We provided basic training to the teachers on operating the network and the computers. Since we did not have much time, having our own core projects

back in Gikomero to take care of, and little prior knowledge of the situation at the school, this was the best we could do at the time.

We were so impressed with the students at GGA that we immediately recommended to our University management to start recruiting from their students to study at PolyU, and to this end we gave an impromptu pitch to the girls there about studying at PolyU before we left. It was just the beginning and much still needs to be done. We needed to provide entry scholarships to students with outstanding academic performance, otherwise few, if any, would be able to afford to attend PolyU. PolyU then sent representatives from the International Affairs Office as well as the Dean of Engineering to Rwanda to aid in promotion and recruitment efforts. We also had to spend a couple of years working through the bureaucratic procedures and developing appropriate ways to assess the applicants' credentials. Finally, in 2019, PolyU admitted two students from Rwanda, a historic first. In 2020, another two were admitted. All four were provided with generous entry scholarships.

This is one of the lessons we have learned – that it pays to invest time and effort to get to know a country. The dividends can be more and better Service-Learning, but can also lead to something else, unexpected. The Gashora connection was something that we had not anticipated at all. If we had not gone to Rwanda for Service-Learning and had not kept looking for new opportunities for projects and collaboration, we would not have discovered Gashora and PolyU might well not have considered recruiting students from Rwanda. These students are few in number at this point, yet they have already added a new dimension to student life at PolyU.

8.3 The Brown Student Journalists

The concept of volunteer work is a familiar one and many people have some experience of volunteering their time for a good cause without compensation.

Learning in an academic setting, of course, is something that we all go through to receive any kind of formal academic credential. Service-Learning, however, is something quite different. What does it really mean? What does it look like? How do you learn to serve, and how do you learn through service? What exactly are you learning? The best way to understand it is to participate in person. Yet how does a student decide whether it is something that they would like to do, when they have no idea what it is? Full understanding of the concept of Service-Learning is crucial for administrators if they are to decide whether it is of sufficient benefit to incorporate into an academic programme, for donors to decide whether it merits their support, for the university finance office to determine how they can facilitate the financing of such projects, for doctors and nurses to develop procedures and guidelines to support the students, and so on.

We related our Service-Learning experience with our project at an orphanage/primary school in Gansu in Mainland China in 2008 in the form of a book illustrated with photographs, which was very well-received. We have subsequently written other similar books, as well as reports. We found that effort quite taxing: figuring out what stories are worth telling, taking detailed notes, interviewing the relevant parties, taking appropriate photographs or videos, writing, editing, selecting photographs, designing the layout, and designing the cover. We had considered asking some of the students involved to help writing up their experience and some subject teachers have done exactly that. However, we believe that this could distract them from the Service-Learning that they have been enrolled to undertake.

We therefore decided to recruit a team of student journalists to join the Service-Learning teams to report on the projects. The team of journalists is responsible for documenting the projects and collecting enough data and photographs to produce a book that can enable the readers to better understand international Service-Learning at PolyU. In the spirit of internationalisation, we decided to recruit students from both PolyU and a foreign university to form the team. At the time, we found an opportunity to recruit a number of students with relevant journalism experience from Brown University, Dr Grace Ngai's alma mater. The following is how we advertised the position.

Service-Learning Journalists and Writers

Opportunity Description: Do you like to write? Do you like to travel? Do you care about social justice?

The Office of Service-Learning at The Hong Kong Polytechnic University is accepting applications for student journalist positions for our summer 2016 internship positions. We organise a number of overseas service projects every year for our students, and we are looking for student writers, photographers and videographers to help us to collect documentation and draft articles for a book publication.

During the course of the internship, you may have opportunities to travel along with our student teams as they serve in countries such as Rwanda, Cambodia, Myanmar and/or Vietnam. Your job will be to document, through photos, videos and/or interviews, the work performed by our students and the impact on the community. With this documentation, you will then collate it into a series of articles that will eventually be bound into a published book.

This job may involve travelling to overseas sites in developing countries. Some of these sites will be in rural areas. Projects that our students will be working on (and will be expected to be covered in the documentation) include engineering/renewable energy, health care, eye care, nutrition, hotel and hospitality training.

We finally had a team of six: three students from Brown and three from PolyU. We brought them all to our office, gave them briefings on our Service-Learning programme and their assigned tasks, and then sent them into the field. By summer 2016, PolyU had many teams in the field in countries including Vietnam, Cambodia,

Myanmar, and Rwanda. Several of these projects are operated with collaboration between the Service-Learning teacher and OSL. The Service-Learning teacher is in a foreign country dealing with many complicated issues and we did not want to burden them with having to be responsible for another person (the student journalist) not directly involved in the service. At the same time, the student journalist is likely to be unfamiliar with the country and the site. Therefore, in principle, we would only send a journalist to projects where we have OSL staff on the ground who can provide support as needed.

With these precautions and preparations in place, the reporting went well. As far as possible, we paired a PolyU journalist with one from Brown. This was so that they could complement and learn from each other. Brown University has a long and illustrious tradition in Service-Learning and civic engagement, with their Swearer Center for Public Service having been established in 1986, while PolyU's Office of Service-Learning was established only in 2011. Swearer values ethical and engaged student leadership; reciprocity and respect; diversity, equity, and inclusion; social justice; and intellectual rigour. PolyU also places great emphasis on these values; yet we also operate in our own specific cultural, historical, and political environment. Thus, we have developed distinctive characteristics in our Service-Learning programme appropriate to this environment. The cross fertilisation between Brown and PolyU brought very beneficial results in more ways than one. The collaboration, which began in 2016, has continued and deepened into our Service-Learning exchange programme, whereby we send our students to join Brown's iProv summer internship programme. More on that in the next section.

In the meantime, each year the student journalists produce publications that tell the stories of PolyU's many international Service-Learning projects in Rwanda, Cambodia, and Vietnam. The stories cover the projects, as well as introduce the country, the community, and the issues tackled. They tell the stories of the students: what they do, how they interact with the community, and how they feel and change. They tell the stories of the teachers: how they plan, teach, and are in turn impacted. They, of course, also tell the stories of the community and the local partners, and how they are affected by the interactions. The journalists also produce short videos and other media which help make the international Service-Learning experience come to life.

The efforts of the student journalists make international Service-Learning accessible to so many interested parties who cannot travel to these faraway places to experience it first-hand. These publications and videos play an important role in informing the campus and our many stakeholders what Service-Learning really is and what kind of impact it is making among our students as well as in the target communities. They help us generate support, financial and otherwise, for the programme. Most importantly perhaps, they help us embrace social engagement and global citizenship as core values at PolyU.

8.4 Lee Hysan Student Exchange Programme

By 2016, we had developed a number of ways for our students to gain international experience in Service-Learning.

- There are many international Service-Learning projects through which PolyU students are immersed in a foreign country for an intensive but relatively short seven to 14 days with their service projects. Most of the time they collaborate with local students and youths; these include the youth volunteers from many organisations in Cambodia, students from the University of Rwanda, youths from villages in Rwanda, and youth volunteers from Eco Vietnam in Vietnam.
- There are opportunities for PolyU students to serve in a foreign country alongside international students from a third country. The Global Service-Learning Scheme is open to students from member universities in the University Social Responsibility Network, such as those from Haifa University of Israel, Washington University at St Louis in USA, and others.
- There are the Global Classrooms through which PolyU and students from a foreign country learn together online. PolyU and the University of Maryland students learn the complementary topics of Service-Learning and global leadership together in credit-bearing courses.

- There are joint-university teams, such as PolyU-UMD in Rwanda, PolyU-UPenn in Rwanda, PolyU-UMD in Cambodia, PolyU-UPenn in Mainland China, PolyU-Duta Wacana in Indonesia, and PolyU-Dagon University in Myanmar. These are joint projects where teachers from the partner universities work together to design the projects for both sets of students.

Beyond these programmes, we want to give our best students the opportunity to be immersed in a strong foreign programme in Service-Learning for a longer period, say one to three months. This is to give them sufficient opportunities to immerse themselves in social engagement in a foreign culture with sufficient time to reflect deeply, experiment, and internalise that learning. Some prestigious universities globally, though many in the USA, have operated very strong academic Service-Learning programmes for many years. We wish to provide our students with a more immersive way to learn about Service-Learning from these programmes – as exchange students or through internships.

We broached this idea with the Lee Hysan Foundation of Hong Kong and received a favourable response. The Lee Hysan Foundation is a local private family foundation, established in 1973, which supports impactful charity initiatives in Hong Kong. They are keen to provide the best and most motivated students with a chance to learn best practices overseas and bring their experience back to Hong Kong. In 2015, they accepted our proposal and agreed to fund the necessary expenses for several students for the duration of their stay at a foreign university and at the project in which they then participate upon returning to Hong Kong.

Regular Academic Exchange with a Service-Learning Theme

Initially, we believed we could “piggy-back” the Service-Learning Exchange Programme on the University’s existing outbound academic exchange programme that has been operating for many years. We could fund the student’s exchange trip if we can identify an outbound student who is: (1) committed to Service-Learning and has demonstrated concrete preparation by performing well in their compulsory Service-Learning subject, (2) on exchange with a prestigious university with a strong Service-Learning programme, and (3) planning to, or happy to integrate into their exchange a suitable Service-Learning course or project at the exchange university.

The Service-Learning Exchange Programme opened for applications in November 2015. In Spring 2016, one student, Li Qiang Gabriel, was sent to Cornell University, a prestigious Ivy League school with a long-standing and illustrious Service-Learning programme. Gabriel joined the GALLOP programme in New York City, through which he supported children and adults who were participating in a therapeutic horsemanship programme. Another student, Li Luoqi Erin, went to the University of Maryland at College Park and participated in the “Terps for Change” programme, serving the elderly in Washington DC. Having gained valuable experience in the established and comprehensive community engagement scene in the USA, when they returned to Hong Kong, our students participated in a number of post-exchange activities such as modifying assistive technology games for the elderly in nursing homes to reinforce their memory and encouraging body movement, and disseminating their experience to other PolyU students via different media.

In the following year, Paul Szeto went to Lund University in Sweden, where he joined two programmes: (i) The Greenhouse Educational Ecosystem which focuses on implementing a sustainable and ecological Naturalistic Design in open spaces in Sweden, and (ii) Food Saving Lund, which aims to reduce food waste, share food, educate food production, and raise awareness about food waste and revaluation of food. Upon returning to Hong Kong, Paul set up an online platform for redirecting unsold food from restaurants to people in need. His community service and

entrepreneurial spirit was a key reason for his receiving an outstanding student award from the Faculty of Business.

We have successfully sent several students on Service-Learning exchange through the regular academic exchange route and they have made an impact with their Service-Learning experience overseas. Unfortunately, the reality is much more challenging than we had anticipated originally. Each of the three conditions required is not overly difficult to meet but the intersection of the conditions turns out to be quite limiting. Many of the students who apply for overseas exchange may not have had Service-Learning as their original purpose and so may not choose their university with Service-Learning in mind. Even if the student is keen and the university is strong in Service-Learning, it may not be easy to find a programme that meets the needs of our student, and we cannot expect a programme to be purposely-designed for our students. This rather serendipity-based approach simply did not work on the scale that we had hoped for.

Purpose-Designed Global Leadership and Civic Engagement (GLCE) Exchange

When piggy-backing Service-Learning exchange on regular academic exchange proved to be difficult, we reviewed what we had learned from the failure and regrouped. We realised we needed a more targeted strategy and took the opportunity to redesign and enrich the programme. The result was a revised programme to cultivate devoted and passionate students to become Service-Learning leaders by providing a purpose-designed platform for them to serve in NGOs in an international setting and multicultural environment. This is not simply an internship; this is a fellowship programme which incorporates an internship and an exchange.

In 2016, we adjusted our strategy accordingly. We identified a few universities as potential partners and proposed setting up with them a suitable programme that would take advantage of the partner university’s strengths and the needs of our students. We visited a number of these potential partners in 2017 to broach

the project with them. This resulted in three related but different programmes that were launched in the summer of 2018. Two of these programmes (at the University of Maryland and Brown University) were developed on our existing collaborations, with a completely new one (at UCLA), developed from a surprisingly successful cold call. In the following year (2019), the programmes with Maryland and Brown continued, while we started a new programme with the University of Southern California. Unfortunately, in 2020 the programmes could not be conducted because of the COVID-19 pandemic.

- The University of Maryland, College Park (UMD) is a public land-grant research university. It is the largest university in Maryland and the Washington Metropolitan area, with 41,000 students (30,000 of whom are undergraduates). Its proximity to the nation's capital has resulted in many research partnerships with the federal government and agencies. UMD is ranked among the top 100 universities both nationally and globally by several indices.
- Brown University (Brown) is a private Ivy League research university, among the most selective in the USA, with approximately 7,000 undergraduate students. Brown is generally perceived as an institution with a free-spirited, iconoclastic student body.
- The University of California, Los Angeles (UCLA) is a public land-grant research university. It has 31,000 undergraduates and 12,800 graduate students. UCLA is referred to as a Public Ivy and is ranked among the best public universities in the USA. A total of 25 Nobel laureates have been associated with UCLA.
- The University of Southern California (USC) is the oldest private research university in California. It has 19,500 undergraduate students and 26,500 graduate and professional students. USC's School of Cinematic Arts has close ties with the entertainment industry, leading to it being featured frequently in movies and television.

Internship at the University of Maryland

UMD has a long history, vast experience and strong organisation in Service-Learning and leadership education. In 1993, President Bill Clinton visited the

Stamp Student Union at UMD to launch the Summer of Service programme that was the prototype for AmeriCorps, the USA domestic version of the Peace Corps. In 1995, UMD began its America Reads programme as one of 20 pilot programmes in USA. In 2005, Community Service-Learning merged with Leadership, and the Leadership and Community Service-Learning (LCSL) Office was formed. In 2009 and 2010, UMD was recognised by inclusion in the President's Higher Education Community Service Honor Roll. Dr Barbara Jacoby, Faculty Associate for Leadership and Community Service-Learning at UMD, is a pioneer in Service-Learning in USA and author of several books on Service-Learning. She was a member of the PolyU Advisory Committee on Service-Learning; it was with her help that it was arranged for one PolyU student to undertake Service-Learning exchange at UMD in 2016.

By 2016, PolyU had already been collaborating with the LCSL Office at UMD on several projects, including the Global Virtual Classroom and the joint Service-Learning project in Rwanda, and was planning for the then upcoming joint project in Cambodia in summer 2017. Having developed mutual understanding and respect through their successful collaboration, OSL at PolyU and LCSL at UMD were able to jointly develop an internship programme for a small team of four students from PolyU for summer 2018. The programme includes getting to know UMD, and Washington, DC, a panel discussion on homelessness, a learning experience at the National Museum of African American History and Culture, and reflection on leadership. The students participate in the programme "A Wider Circle", in which each of the students is assigned a topic on which to research, such as US poverty compared to other developed nations, racism and poverty, mass incarceration and poverty, and unique approaches to addressing poverty by NGOs.

The students are assigned to one of several community organisations, including community kitchens in and around Washington, DC, the capital city of USA. The City hosts three branches of the US federal government (Congress, the President and the Supreme Court), 177 foreign embassies, as well as the headquarters of many international organisations, including the World Bank and the International Monetary Fund. Yet a third of the residents in 2007 were functionally illiterate, compared to a national rate of one in five. In 2017, while residents had a personal income per capita of US\$ 50,832, higher than any of the 52 states, in 2019, 15% of

the residents are below the poverty line. Although parts of the city are very affluent, poverty and crime can be found concentrated in other areas.

iProv at Brown University

Brown is one of the eight prestigious Ivy League universities, with a long history of social activism and social justice. In 1986, Brown President Howard Swearer was at the forefront of a revolution in higher education when he founded one of the first public service centers in USA, now named after him – the Swearer Center for Public Service. The Center is a community of scholars, students, practitioners, and community members that work together to build on community strengths and address community challenges. Their motto is to connect students, faculty, and community partners through community engagement, engaged scholarship and social innovation. At the time of writing, the Swearer Center works with more than 1,200 Brown students, through more than 80 community partners – more than half of whom are in the Greater Providence area.

Providence, founded in 1636, is one of the oldest cities in the USA. It was one of the first cities in the country to industrialise and became noted for its textile manufacturing and, subsequently, machine tool, jewellery, and silverware industries. By the early 1900s, Providence was one of the wealthiest cities in the USA. Manufacturing, however, declined throughout the twentieth century and, in the early 21st century, poverty remains an entrenched problem with approximately 28% of the City's population living below the poverty line.

The iProv Summer Fellowship Program aims to connect “town” with “gown” by involving students in civic engagement work that serves the Providence community. Undergraduate students work full-time in eight- to 10-week internships from June to August with local NGOs. Purpose-designed training is provided to enhance the educational experience of students and encourage them to make connections between their academic work and their career aspirations. iProv students participate in regular workshops and meetings with fellow participants. These workshops

focus on topics such as critical reflection, cultural humility, civic engagement, and effective leadership and action.

In 2018, OSL sent a very small number of carefully selected students to the iProv Summer Fellowship Program, in fact only two students. They took part in regular workshops and meetings with Brown students and worked full-time in eight- to 10-week internships with NGOs in the local community. The workshops covered topics such as “critical” versus “traditional” Service-Learning, identifying social needs, the social change model, the background of slavery in the state of Rhode Island (in which Providence is located), and reflection. Exercises that the students were required to undertake included: (1) setting goals and a workplace for the internship, (2) interviewing the supervisor and learning about the NGO's vision, drive, and purpose, and (3) explaining and sharing about information a typical workday, in the format of writing a letter to someone special (a teacher, friend, or family member) as a way of sharing the internship experience.

One PolyU student, Christy, worked as an intern in a community organisation, where she worked with a group of children in a public park. The other student, Cherie, interned at an organisation promoting organic food in the local community. In July, Dr Grace Ngai and Dr Stephen Chan were able to visit Christy and Cherie and observe their service. Both students stayed active in community service upon their return from the United States. Christy actually returned to work for OSL in two separate stints, using her design skills on a wide range of projects communicating and supporting Service-Learning projects.

Exchange at UCLA

UCLA was ranked 31 by the Quacquarelli Symonds (QS) rankings (2017) and is one of the most prestigious “young universities” in the world. The UCLA Center for Community Learning “promotes and supports community-engaged research, teaching and learning in partnership with communities and organizations throughout Los Angeles, regionally, nationally and globally. The Center facilitates

faculty and student work that integrates sustained, reciprocal engagement with the public and helps transform UCLA's mission to support the co-creation, co-dissemination, co-preservation, and co-application of knowledge for the betterment of society." The vision of the Center is to make community-engaged research, teaching, and learning cornerstones of undergraduate education at UCLA.

In 1980, the Office of Field Studies was established at UCLA to support academic engagement beyond the classroom. In the period from 1987 to 1990, UCLA Chancellor Charles Young and Stanford President Donald Kennedy created the California Campus Compact to engage students in their communities and bring more resources to such efforts in California. In 1997, America Reads: LA JumpStart programme was launched in partnership with the Student Affairs BRUIN CORPS. In 1999, the Chancellor's Service-Learning Task Force called for the creation of a Center for Experiential Education and Service-Learning, which was subsequently established in 2001. In 2003, the Center was renamed the Center for Community Learning and spearheaded UCLA's efforts to create a "Service-Learning" course suffix to designate Service-Learning courses. In 2006, the Civic Engagement Minor was launched. In 2007, UCLA received the Carnegie Community Engagement Classification, an elective designation that indicates institutional commitment to community engagement by the Carnegie Foundation for the Advancement of Teaching. In 2011, the Center launched the 195CE internship courses with the CE suffix signifying the students are working through the Center and receiving extensive supervision and mentoring from graduate student instructors. In 2017, the Center launched a community engaged pedagogy course to provide professional development for graduate students across the disciplines – Graduate Student Professional Development 495CE. In 2019, the Center launched a new Community Engagement and Social Change minor to provide undergraduates with the opportunity for sustained community-engaged work integrated within an academic social justice framework.

For UMD and Brown, the Service-Learning internship programme grew out of our prior collaboration. UCLA, however, was a brand-new partner. We approached them because of their reputation in Service-Learning and recommendations from

trusted friends in the Service-Learning community. We were very pleasantly surprised when they warmly received our email enquiry. We then visited them at their campus twice before we arrived at a tentative agreement to develop a summer internship programme for our students. Douglas Barrera of the Center designed a tailor-made programme for our three students sent to UCLA. They attend seminars on non-profit organisation management and community development, cultural events, as well as mandatory weekly reflection meetings throughout their stay in the United States. They were then assigned to an NGO in the Los Angeles area for the remainder of their programme.

Los Angeles is the second largest city in the USA, after New York City, known for its Mediterranean climate, ethnic diversity, Hollywood entertainment industry, and its sprawling metropolis. It is the sixth most competitive financial centre, the largest manufacturing centre and the busiest port in the USA. As of 2020, however, it also has 41,290 homeless people, an increase of 14% over the previous year.

Lessons from Service-Learning Student Exchange

The students returned from their internships in the USA having learned much but also with many questions. With reference to social engagement, they saw a lot of parallels between issues in Hong Kong and what they had observed in the USA. They carried back with them their exposure to the organisation, scholarship, practices, and skills from their internships at the NGOs, and interactions with the professors, students, and society in general. Many applied what they have learned to projects in Hong Kong since their return.

They also brought back questions. Many were quite surprised that so much poverty exists in a wealthy nation such as the USA and they were not sure why. They realised that they had only experienced a small slice of the big country, for only a limited period of time. Hence what they have observed may not be representative of the country as a whole. Yet some of them could not help but wonder whether such a stark contrast of poverty set against so much wealth is

because of a lack of will, knowledge, or something else. They questioned: “Surely such a wealthy nation should have sufficient resources to pull the poor out of poverty. Why is it not happening? Why haven’t they tried? If they have tried, why couldn’t they succeed?” Clearly, many such issues cannot be resolved quickly, if at all. We feel the programme has succeeded if it prompts them to question what they have seen, been told, or assumed before, and to continue to seek answers. In fact, one can ask the same question of any well-developed place, such as Hong Kong, Australia, Canada, Singapore, South Korea, Japan, United Kingdom, France and Germany.

At this point, it is worth explaining why we send students to wealthy nations such as the USA for Service-Learning. It is certainly an established fact that even a wealthy nation such as the USA has its own social issues: communities that suffer from poverty, poor health, lack of education, unemployment, and discrimination. However, serving these underprivileged communities is not the main reason why we send our students there. As noted earlier, the USA is wealthy enough to take care of its own problems and are, in fact, in a better position than most nations when handling these issues. Secondly, from our perspective, our students can make a bigger impact serving underprivileged communities in other less wealthy nations.

We send our students there to: (1) consider why a wealthy nation such as the USA still has so many serious social issues; (2) investigate what is the nation doing or not doing to tackle these issues, and why; and (3) see, based on their extensive experience, what works and what does not work. We send our students to the leading universities in civic engagement so that our students can learn from their experience and insight. Given the limited time that our students can spend overseas, they can only gain a preliminary awareness of the issues. However, we believe it is a good start.

Two-way Service-Learning Exchange with the University of Southern California

The Service-Learning exchange programme in summer 2018 was very successful. Both UMD and Brown were happy to continue with the programme and another group of students were sent to these two universities in summer 2019. The programme was interrupted in 2020 only because of the COVID-19 pandemic.

The UCLA programme was also successful despite some initial teething problems. Unfortunately, the UCLA Center for Community Learning went through some changes themselves and were unable to host our students in summer 2019. On the other hand, we had made some progress in discussions with the University of Southern California (USC) by then and USC was able to host our students on another programme. In fact, we took the opportunity to take the exchange to the next level, turning it into a two-way exchange between USC and PolyU. After some discussion, we decided that the theme of the programme in 2019 should be a topic of mutual interest: homelessness. It turns out that both LA and Hong Kong have significant issues of homelessness and poor-quality housing.

Established in 1972, the USC Joint Educational Project (JEP) is one of the oldest and largest Service-Learning programmes in the USA. Each year, more than 2,000 students enrol in JEP’s Service-Learning, work-study, and volunteer programmes. Over the years, JEP has been honoured with numerous awards and recognitions for its pioneering contributions to the field. JEP offers a wide range of service and Service-Learning opportunities in nearby schools, community-based organisations, health-care facilities, and legal clinics. The Programme partners with USC faculty who offer course credit for participating students, and offers opportunities for alumni, USC employees and student volunteers. The JEP programmes combine hands-on experience with reflective practice, enabling students to learn first-hand about critical issues facing the communities surrounding USC.

The programme that we designed together with Dr Susan Harris’ team at JEP is a unique four-week programme in LA designed to help students learn about

homelessness in that context, to complement a sister programme in Hong Kong. A weekly seminar teaches students about the evolution of the current homelessness situation and criminal justice policy in the USA, with particular focus on economic, social, and political factors. It also facilitates utilisation of conceptual and analytic reasoning skills to serve vulnerable populations and advance social and economic justice for individuals experiencing homelessness. Field experiences include a Skid Row tour, Skid Row choir visit, and a three-week placement in community centres. Skid Row is a neighbourhood in downtown LA, also known as Central City East. It contains one of the largest stable populations (4,000-8,000) of homeless people in the USA. It is particularly noteworthy because of its long history of poor living conditions, police raids, advocacy efforts, targeted city initiatives, and the publicity it attracts.

Following the programme in LA, three students from USC came to Hong Kong for the return programme. They were joined by some of the PolyU students who had previously been to USC. Together, they took part in workshops on the unique political background of Hong Kong, the practical style of civic engagement in Hong Kong, Service-Learning at PolyU, and specific issues related to homelessness and poor housing in Hong Kong. In contrast to LA, the number of people who live on the street for extended periods is not as high in Hong Kong, with the official number said to be just over 1,000. However, there is a very large population that live in extremely small sub-divided flats and in sub-standard rooms with very poor ventilation and sanitation. There is much similarity but also differences between the situations in LA and Hong Kong.

Through this unique programme, students from PolyU and USC learn about an issue in their own city, the same or similar issue in a somewhat similar yet different city, the similar/different causes, government policies and action/inaction, mobilisation of community organisations, and much more.

8.5 Offshore Bases

International Service-Learning is a top priority for PolyU. On the one hand, it is a very effective way to create impactful projects with many places in the world that facing tremendous problems, to which our students and staff can apply their knowledge and skills to help tackle. On the other hand, the diverse culture, language, people, economic environment, and so many other aspects offer great learning opportunities for our students and staff. We are always striving to find ways to improve our international Service-Learning.

We have learned many important lessons from our own experience.

- A good understanding of the community and the issue in question is required to develop and implement a good Service-Learning project. This is clearly particularly important for projects in a foreign country and, generally, it takes a long time to truly become familiar with a particular community or country.
- It is tremendously helpful to have a strong local partner, who is stable, well-connected, and experienced in supporting a team coming from overseas. They can help us understand a country, identify pertinent issues, develop solutions, and connect us with other suitable partners.
- To create significant impact, it is best to commit to a project for several years, in order to build up understanding, correct mistakes, and develop suitable impactful solutions. It is also critical to develop mutual understanding, respect, and trust with local partners, for effective collaboration; a one-shot project is generally not preferable for these reasons.
- The needs of a community are usually multi-faceted. Poverty is often associated with poor sanitation and health, lack of clean water, lack of electricity supply, poor education infrastructure, and lack of employment opportunities. To tackle these problems, it may be better to have a team with multiple skills, or even multiple teams with different skills.

For these and other practical considerations, we strongly discourage one-shot projects. Much effort is required to set up an offshore project: identifying

a community and an issue, finding a suitable partner, arranging long-range transportation, finding suitable accommodation (inexpensive but clean and safe), arranging local travel, and assuring safety and health. Such efforts can be amortised over several years if the team returns, but they usually have to be repeated for a new country/community if the team moves to a new site each year. There might be exceptions for certain disciplines, such as tourism, for whom the initial investigation and setting up may be part of the core and desired challenges of the discipline.

Beyond repeating long-term projects, we have proactively invested considerable effort into developing offshore posts in countries where we have acquired a good local understanding, strong partners, impactful projects, and potential for expansion of efforts. We leverage the knowledge and contacts that we have built up to bring in further teams and teams with diverse expertise, experiment with new projects and partnerships, train new teachers and other staff, and create innovative practices.

The first country where we successfully developed an outpost is Cambodia, where we have served since 2010. Cambodia has suffered from horrible wars, genocide and internal conflict, and continues to suffer from severe poverty. On the other hand, it has strong ties, past and present with China, and is a reasonably inexpensive two-hour flight from Hong Kong. It is developing rapidly and imposes few restrictions on international agencies. We have since developed strong relations with their top university and numerous NGOs, some of which have strong ties to Hong Kong.

Kenneth Lo is the SLLO Senior Service-Learning Manager. A BSc and MPhil graduate of Computing from PolyU, he has been involved with Service-Learning since 2006, when he went with Dr Ngai and Dr Chan on the first Service-Learning team to Hubei province in Mainland China, as a first-year student he joined the OSL as one of its first staff members and has since become one of its most experienced and versatile colleagues, particularly in technology-assisted service projects. Instrumental in setting up the offshore



base in Cambodia in support of Service-Learning projects, as well as the Habitat Green project in Rwanda, Kenneth has a wide range of experience in teaching, training, and supervising students, as well as managing large-scale and complex projects involving multiple teams and project sites. With his strong information technology skills, he has led and developed many information technology systems in support of office operations and the offering and funding of Service-Learning subjects across the University. Kenneth has also conducted many creative research projects on Service-Learning, using statistical and computational methods for analysis, resulting in numerous publications. He recently started to apply data mining methods to analysing Service-Learning data and is working on his PhD studies on a related topic as this book is being written.

The second outpost is Rwanda, almost 10,000 kilometres from Hong Kong, from which it is spectacularly different, in terms of ethnicity, the physical appearance of its people, its language, history, economic development, living conditions, culture, cuisine, and climate.

Cambodia Base

Background

About a thousand years ago Cambodia was a mighty empire, dominating much of the Indochinese Peninsula, nowadays often called Mainland Southeast Asia (in contrast to Maritime Southeast Asia). The Khmer Empire left a most notable legacy in Angkor, the former Khmer capital where majestic ruins such as Angkor Wat help us imagine its grandeur. The Khmer Empire declined as its neighbours, Thailand and Vietnam, gained in power and, in 1863, Cambodia became a protectorate of France. In 1953, Cambodia regained its independence but remained a troubled nation. In 1969, the USA started bombing the Cambodian section of the Ho Chi

Minh Trail, through which the Communist North Vietnam forces attacked South Vietnam, embroiling Cambodia in the Vietnam conflict. In 1975, the murderous Communist Khmer Rouge took over Phnom Penh, starting the Cambodian Genocide which continued until its ouster in 1979, during which period a quarter of the then 7.8 million population in the country were believed to have perished. Vietnam invaded Cambodia in 1978 and occupied it until 1992. The country gradually stabilised after a coup in 1997 and was accepted into the Association of Southeast Asian Nations (ASEAN) in 1999. By the time we started taking our teams to serve in Cambodia in 2010, the country was still poor but had begun to develop rapidly.

The genocide and the civil war destroyed much of the country's infrastructure. In the early 2010s, much of the countryside was still without electricity and running water, with people who could afford it operating their own electrical generators powered by gasoline and digging their own wells for cleaner water. People who could not afford it lived their lives by the sun and fetched muddy water from rivers and ponds. There were still frequent power outages even in Phnom Penh. Schools were poorly funded with school teachers being paid around US\$100 a month, not enough to feed a family. Basic education was supposed to be free but the schools often had to collect fees in order to continue operating, while the poor often could not send their children to school because they could not afford the fees. It was estimated that, in the mid-2010s, Cambodia, with a population of 16 million, had about 800 people (0.005%) with PhD degrees. In contrast, Hong Kong, with a population of 7.5 million, awards more than 1,000 PhDs each year while the USA has about 3.1 million people with PhD degrees (1.2%). The universities were also poorly funded with academics having to teach additional self-financed courses to supplement their income. Under these circumstances academic positions were not attractive. Half of the government's budget depended on foreign donations and the local currency was so weak that people paid and accepted US dollars at hotels and restaurants.

On the other hand, Cambodia seemed to impose fewer restrictions on foreign agencies, compared to many other Asian countries. Cambodia is said to have one of the highest concentrations of foreign agencies in the world. Foreign investment from Mainland China, Hong Kong, Taiwan, Japan, Korea, and Europe are flowing in rapidly. Garment and other types of factories line the main roads leading out of

Phnom Penh. Slums have been cleared and pushed to the outskirts to make way for new construction with commercial buildings and posh gated residential estates springing up all over the capital, while resorts and casinos rush into the tourist areas. The roads are improving, with potholes being filled and more and more fancy cars competing with motorcycles and tuk-tuks on the streets. Coffee shops and karaoke parlours have taken over many street corners. The nominal Gross Domestic Product per capita in 2019 was estimated by the United Nations to be US\$1,644. For reference, it was 65,134 for the USA, 32,134 for South Korea, 11,414 for Malaysia, 10,004 for China, 2,715 for Vietnam, 2,116 for India, 1,817 for Kenya, 1,187 for Pakistan, 820 for Rwanda, and 545 for Democratic Republic of Congo. The economy has been growing at the rate of 7% per annum and many young entrepreneurs are prospering. In the meantime, young people flock to the capital for education and job opportunities, providing huge amounts of manpower, generating more needs for space and services. Churches and agencies struggle to help with housing, education, and other needs. While fewer are starving, the living conditions in the slums are still atrocious. The gap between the rich and poor seems to be growing.

Building Up

In 2010, we sent a team of about 30 students to Cambodia. The team was split into five to six small teams, each embedded in a community organisation, working on various computer-related projects. Our partners included an organisation set up by an American running three community learning centres in the slums around the city; Emmanuel Christian School – a primary school run by missionaries near the infamous Stung Meanchey rubbish dump where children scramble up and down the mountains of garbage looking for things to recycle; Rhenish Homes – an orphanage run by a Christian charity from Hong Kong; White Lotus – a women's shelter run by two lady missionaries from the USA for victims of human trafficking; and a charity teaching children photography, among other things, in Siem Reap.

These contacts, in turn, introduced us to other organisations: another women's shelter run by a lady missionary from the USA; Rahab's House – a shelter for the children victims of human trafficking; House of Rainbow Bridge – a hospital for

children with HIV/AIDS; Sarah Chang's Asian Human Resources Development Institute (HRDI) – a vocational school for youths in poverty; the Cambodian Young Men's Christian Association (YMCA); Panha Ek's Young People Do (YPD) – an indigenous community organisation run by an enterprising young Cambodian woman; New Life Fellowship – a large energetic Christian church started by Americans but run mostly by Cambodians helping many young people who come to the city from the countryside for work and education; Vatanak Serey Vong's Living Water Farm, a social enterprise focusing on sustainable farming run by a passionate young man; and the Royal University of Phnom Penh, the premier university in Cambodia.

From 2010 to 2020, we took over numerous teams from PolyU and more than 1,000 students and staff to work with these organisations and communities. One team taught English at the Emmanuel Christian School at the rubbish dump. They subsequently created another team to help social enterprises document and publicise their work through social media. An optometry team performed vision screening in schools and other sites, while another team did health promotion in the villages and slums. A team from our famed School of Tourism and Hospitality advised local hotels that employ and train young people for the hospitality industry. Other teams designed and implemented water filtration systems for a village, installed solar panels to generate electricity and indoor wiring to light up several villages, and built community learning centres out of converted cargo containers. Students and volunteers from HRDI, New Life, YPD, and others work alongside PolyU students and Royal University of Phnom Penh (RUPP) students on many projects. When the pandemic suspended travel, we worked with them to pilot long-distance workshops conducted through video conference over the internet on various topics such as social media, science, and others.

We have built up such a strong relationship with the RUPP that they let us use one of their offices as our home base. We also get to use classrooms, meeting rooms, and conference facilities as needed. We hire some of their staff part-time to support our project preparation and execution, while other RUPP staff and students work alongside PolyU staff and students on many projects. With all this support, we

have been able to run training workshops and student conferences with hundreds of participants. We have accepted students from our partner universities in Mainland China and foreign countries including the USA, Israel, and Vietnam, to work alongside our students on numerous projects. We have run staff training courses for several years, with more than 20 participants in each cohort, from Hong Kong, Mainland China, the Philippines, and Vietnam. These teachers observe students in the field working on a wide variety of projects, interview their teachers and partner NGOs, and plan their own projects and courses. They have since created many Service-Learning courses and projects at their own home institutions.

We have also learned some important lessons building up our relationship with RUPP. We have always tried to develop collaborative relations with reputable, leading universities in the countries in which we operate. Initially we approached the senior management of RUPP. They were positive about working with us, but for a while we could not reach the right people on the frontline who would be willing and have the right skills as well as authority to carry out Service-Learning projects with us. Subsequently, through our community partners, we were able to connect with some frontline teachers who could work with us, even arranging for our team to use facilities on the RUPP campus for training and preparation, but they did not have the authority to approve formal collaboration. At one point, we had dozens of students from multiple countries training to assemble solar panels in their big assembly hall. We were also training the students to incorporate solar-charged batteries and LED lights into dead palm tree leaf stems to create desk lamps. By chance, the Dean of the RUPP Faculty of Social Sciences and Humanities, Dr Leang Un, happened to be playing badminton in the cavernous hall next to our students. He was impressed by the concept of sustainability taught and practised through installing solar panels as well as turning dead palm tree leaf stems into something useful, and gave us his blessing to move ahead with serious university-to-university collaboration. He has proven to be a staunch supporter and mover who has made things happen.

Un Leang. Dean of Development Studies of the Royal University of Phnom Penh in Cambodia, has been a key figure driving the collaboration between PolyU and RUPP and in developing Cambodia as a base for Service-Learning. Dr Leang has long been involved in advocating and researching education reform in Cambodia.

Our experience in Cambodia has taught us the value of hard work as well as serendipity, and often the need for both at the same time. Those of us who believe in God thank Him for His provisions but we must also work hard and be creative. Sometimes we need an opportunity to present itself but, when it does, we need to be ready. In order to be ready, much preparatory hard work has to be done beforehand.

Rwanda Base

Background

Rwanda is a landlocked country in the Great Rift Valley in East Africa. Surrounded by Uganda to the north, Tanzania to the east, Burundi to the south, and the Democratic Republic of Congo to the west, it was colonised by Germany in 1884 and invaded in 1916 by Belgium during World War I. In 1962, Rwanda became independent. However, ethnic conflicts plagued Rwanda after the colonial days and continued after independence. In 1994, they flared into a horrendous genocide in which an estimated 800,000 Tutsi and moderate Hutu Rwandans were killed over a period of 100 days, among a population of approximately eight million. It was a horrible time for Rwanda. The world watched but little was done to help. The killing was stopped only by a rebel Tutsi army.

Since 1994, however, Rwanda has been going in a very different direction. The killers were taken to court but there was no revenge massacre. Instead, the country concentrated their efforts into resolving the ethnic conflict. The government

abolished the ethnic label (Hutu, Tutsi, Twa) on the identity card and encouraged everyone to identify themselves as Rwandan rather than members of specific ethnic groups. The Christian churches, in particular, have worked hard on reconciliation, emphasising that faith can help overcome the bias and sense of injustice, and break the cycle of hatred and revenge which lies at the core of ethnic conflicts. Although, the country remains very poor – GDP per capita is only US\$820 per year, the economy has been growing fast at around 7% per year and is quite stable. Today, Rwanda is rated as one of the best countries in Africa in which to invest.

Much of the country, even within the capital district of Kigali, is still without electricity and running water, despite the government working hard on electrifying the country. However, given the limited resources available, it is going to take a long time before the national vision can be fully realised. Despite the poverty, Rwanda is very clean. The streets and the environment are clean, even in the countryside. The government is generally considered to be free of corruption, with a corruption index on a par with much more advanced economies such as South Korea.

A lot of people probably know very little about Rwanda. Many cannot place it on a map. Among those who have heard of it, there is a perception that Rwanda is a violent, dangerous place. It is interesting that even in Africa, people who live far away from Rwanda, for example in South Africa, seem to perceive of it only as a poor, dangerous place. People in neighbouring countries on the other hand, for example Tanzania, seem to be quite envious of its success. Perhaps, Rwanda's bad reputation among people from afar derives from the tremendous global impact of the horrible genocide, while its neighbours are more aware of the current situation. The reality is that the genocide happened more than 20 years ago and the country has been stable and developing for many years. Our teams have travelled throughout Rwanda extensively, particularly in and around the mountain villages north of the capital Kigali, to a school in Rwamagana to the east, to Akagera national park near the border with Tanzania in the east, to a university at Nyagatare to the northeast near the border with Uganda, to schools near Nyamata in the south near the border with Burundi, to the northwest to see the mountain gorillas at the Volcanos National Park near the border with Uganda and Democratic Republic of



Congo, and never have we felt unsafe. We have taken taxis and buses, walked and jogged on the clean streets, hiked up and down mountains. Everywhere we go people have been friendly.

From our perspective, one of the most attractive features of our work in Rwanda is our partner, African Evangelistic Enterprise (AEE) Rwanda. We had received strong recommendations prior to our getting to know them in person and the more we get to know and work with them, the more we have been impressed by the organisation and its people. AEE Rwanda is completely run by local Rwandans and their philosophy is to help people help themselves. We have visited many of their projects: vegetable gardens, butcher's shops, small experimental farms, rabbit/fish farms, chicken farms, pig farms, public toilets, passion fruit farms, schools staffed with volunteer teachers, villagers working together to build houses for children who lost their parents, water sanitation projects, as well as self-help groups learning to cook, bake, and do all kinds of other things together. We have always been impressed by how well their staff interact with the villagers and how hard they work, and how volunteers run and train the self-help groups. We feel we can learn so much from them.

Building Up

In 2013, in Rwanda, we started with something we were familiar with. We installed a computer network at the Center of Champions, AEE Rwanda's primary and vocational school for young people who had previously missed their opportunity for an education. We visited several of their self-help groups to help document the good work being done and help publicise their stories through pamphlets and social media. We also ran workshops for their staff on information technology and social media.

Then, we started installing solar panels to generate electricity. We started with two primary schools in the mountains in Gikomero. When that had proven to work, we started installing single systems for 33 families in the following year. We then refined the design to install solar panels on a few selected houses as charging

stations; that way many more houses could charge their batteries at the charging stations and then bring their batteries back home to power the lights and phone chargers that we had installed. We ended up providing electricity to hundreds of houses in a village deep in a valley where there had never previously been electricity and where the internet was not yet accessible. When the lights turned on for the first time, the villagers felt they were in Kigali! Along the way, we also set up wireless networks for many of AEE Rwanda's offices all over Rwanda. In addition, we have run many workshops on a wide range of technology-related topics for children, teenagers, adults, and professionals.

We later took another team to conduct health promotion and started some vegetable gardens. Another team designed more efficient brick stoves to replace the local two-stone stoves. We brought along a team from the University of Maryland to work alongside PolyU students, as well as young people from a local NGO and students from the University of Rwanda. We trained young people from the villages to install solar panels for their own and neighbouring villages. When the pandemic hit, we were able to leverage the connections we had developed to set up remote classes for children who could not go to school, taught by our students through the tenuous internet. We are still developing ways to strengthen these classes and we are hoping we may even be able to teach local youths and university students to install solar panels remotely. Using our experience in Rwanda, we are planning to take our projects to other African countries.

Rwanda (and Africa more generally) offers tremendous service and learning opportunities because it is so different from the Hong Kong, China, and broader Asian contexts. Since it is so far away, the cost of traveling, logistics, and time is high and, for these reasons, it is difficult to take a large team or to stay for a long time. We always have to be very well prepared when we visit and make every day and every person count while we are on the ground. That has forced and stimulated us to not just work hard but also be creative. Increasingly, we are taking advantage of the advances with the internet and associated technologies to create new projects and new ways to engage.



In return, we have made so many friends. We learned it is possible to recover from a horrible genocide; it is possible to forgive and reconcile; it is possible to live in poverty with hope; it is possible to be confident even when you are dirt poor. We learned how hardship can build character, how technology can divide but also unite, how gratifying it can be when you can use what you know to do good, how to live with very little water, why we should treasure what we have, about the need to learn how to be useful, and how not take good fortune for granted. We learned that when we share, we gain so much more. We continue to learn so much.

In many places in the world, we may have an opportunity to make an incremental change, from 100 to 101, or 10 to 11. In places like Rwanda, we have an opportunity to make a quantum change, from Zero to One, from nothing to something.

Rwanda remains a challenging but also immensely fruitful offshore base for us.

8.6 Funding for International Service-Learning

PolyU's very successful efforts in international Service-Learning could not have succeeded in the way they did without the generous support from the University as well as from donors. The University funds all the costs for teaching Service-Learning, and some of the additional costs such as equipment, materials, manpower, and some necessary travelling expenses. However, the travelling costs of sending teams of students to faraway places and other unexpected costs often exceed the regular funding provided. Some students from more well-off families can afford to cover such costs with their own resources. In fact, many universities, including some in Hong Kong, require students to cover the traveling costs themselves. The heavy financial burden can result in preventing less well-off students from participating in international Service-Learning, perpetuating some of the inequalities in education

and thus in direct conflict with the purpose of Service-Learning. It is important that we find other funding sources to cover as many of the travelling costs as we can so that students who require financial support can participate equally. On the other hand, we do expect students to cover a certain reasonable portion of the costs themselves, to ensure their commitment and accountability.

It is not feasible to discuss in much detail the funding support from all sources. For the sake of illustration, we will simply highlight the donations from one prominent alumnus. Back in 2013, our first foray into Rwanda was funded by the University as an activity that promotes internationalisation. That helped us to initiate one of our most impactful projects. Unfortunately, the funding provided was one-shot in nature. When it was exhausted, we had to seek other sources to keep the project going. This is particularly critical for the projects in Rwanda, which is almost 10,000 kilometres away from Hong Kong, without direct flights between the two places. The project involves a lot of engineering, such as the installation of solar panels to generate electricity and there is a significant need for funding for equipment and materials. For the past several years, the Rwanda projects, and others, have been generously funded by Ir Dr Wong Tit-shing.

Ir Dr Wong is an alumnus of PolyU. He graduated from PolyU's predecessor, the Hong Kong Technical College in 1967. He later founded Jetta Company, a very successful toy manufacturing group, which has gained a reputation for its dedication to producing safe, high-quality toys. In 1998, he founded the Jetta Charitable Foundation, which has financially supported the construction of many schools and hospitals in mainland China, along with providing disaster and poverty relief. Among his many donations to PolyU, he has been funding the Wong Tit-shing Student Exchange Scholarship for outbound exchange of students in the engineering faculty for many years. The programme helps engineering students develop international horizons, increase their understanding of global development, and extend their global network. When we approached him for his support for our international Service-Learning programmes in Rwanda and other locations, he gave us a generous donation and has been supporting the programme every year since. He is always keen to meet with the students to find out what they have done, what

they have learned and how their experience fit in with their studies and career aspirations. The students are very grateful to him, and other donors for their help to make international Service-Learning so successful at PolyU.

Throughout the process, we have worked closely with our Alumni Office who helped us to approach Ir Dr Wong initially and develop the concept, get approval for the donation from PolyU management, negotiate the concrete details and budget, and arrange for Ir Dr Wong to meet with the OSL team. This episode serves to demonstrate that Service-Learning is much more than just a bunch of students doing something to benefit a community. It involves many parts of the University working together on a wide range of aspects, to make Service-Learning happen. It has indeed gone a long way towards embedding Service-Learning into campus life, and indeed making it part of our culture and values. †

Chapter 9

Research

Research is a critical element for a credible Service-Learning programme. At the least, we need to know how many of the intended learning outcomes have been achieved by the students and how much impact the service has had on the community. After taking the service-learning subject, have the students gained a better understanding of social issues? To what extent are they able to apply their academic knowledge in solving real-world problems? Have they become more empathetic and passionate towards others? Are they inclined to be more socially engaged? Has their work brought sustainable benefit to the community?

Beyond addressing these obvious questions on visible outcomes, we also need to know how these outcomes have been achieved. What pedagogies are effective in facilitating these outcomes? What features are not effective? What are the mechanisms in play in the process? These general questions need to be asked in order to improve any programme and to achieve greater impact.

For us, there are also questions related to features that are specific to our programme, that may be of particular interest to us but which can also be useful for others who are considering similar initiatives or facing similar challenges. Our programme is compulsory – all undergraduates are required to take at least one Service-Learning subject. How does that impact the students' motivation, performance, and learning outcomes? We have two fairly different types of Service-Learning subjects. Students can take a Service-Learning subject in their own discipline (*discipline-specific*), applying relatively advanced skills from their own discipline to address social issues. They can also take a Service-Learning subject in another discipline, as *general education*, to broaden their education while addressing social issues. How do these different approaches compare? Our programme invests heavily in international, cross-cultural Service-Learning, making available more

opportunities for students to be involved. Is it really achieving the dual purpose of Service-Learning and internationalisation? We purposely integrate leadership education into many Service-Learning subjects. Does it work? Are Service-Learning and leadership education truly complementary and strengthening each other? Overall, does Service-Learning make a lasting impact on our students? Are we truly successfully embedding responsible citizenship as our core value?

As discussed earlier, we started researching some of these questions as soon as the Service-Learning programme was launched in 2011 and we had already gained some encouraging results by the time the first batch of students graduated in 2016. However, those were necessarily only preliminary results. Our research team was small and inexperienced and we did not have the resources to mount large-scale, in-depth studies. The Office of Service-Learning (OSL) was actually discouraged by some in the University from engaging in research – ostensibly because the Office was considered a non-academic unit. We found the rigid differentiation between academic and non-academic units artificial, unnecessarily restrictive, and unhelpful. We realised we had to push harder for Service-Learning at PolyU to improve. We started to apply for research and teaching development grants. We started seeking collaboration within and outside our University to research some of the important questions we had.

Kam-por Kwan is a Professorial Project Fellow at the Service-Learning and Leadership Office (SLLO), retitled from the former Office of Service-Learning (OSL). Also former head and long-serving member of the Educational Development Centre at PolyU, he assisted Professor Walter Yuen in the early days of designing the Service-Learning programme and relevant procedures. Dr Kwan has also been a long-term member of the Sub-committee on Service-Learning subjects, establishing quality standards for the subjects. At OSL/SLLO, he has been instrumental in building the Service Learning research programme, designing the research protocol for

many projects, and training staff in conducting research projects on the learning outcomes, impacts, and critical success factors associated with Service-Learning.

9.1 Global Competency and Civic Engagement through Service-Learning

International, or more broadly speaking, non-local Service-Learning is an experiential learning pedagogy that combines academic learning and community-based service in an international context. Combining aspects of study abroad and Service-Learning, it embeds an intensive experience of community service in the context of a foreign culture. Non-local Service-Learning has been increasingly adopted by universities to better prepare their students to become “global citizens” equipped with the necessary intercultural competencies to help them function effectively in a progressively inter-connected world.

Service-Learning itself does not have to be conducted in an international, cross-cultural context. In fact, much of the Service-Learning at PolyU, approximately 75%, is conducted locally. On the other hand, non-local, cross-cultural Service-Learning is recognised as a powerful pedagogy that can help us achieve the dual, complementary purposes of Service-Learning and internationalisation. Hence, PolyU is very keen on taking students out of Hong Kong, to serve in communities that are different in language, culture, ethnicity, economic and political system, or simply in having traditions and social practices different from us.

The societies of Mainland China and Hong Kong have fairly distinct cultural environments, even though the racial demographics are similar. This is due to their different political histories, linguistic practices, and economic

development, over the past more than a hundred and fifty years. While there exists a certain degree of familiarity and comfort, nevertheless Service-Learning in the Mainland provides sufficient challenge to simulate the young mind. Even though Mainland China and Hong Kong are part of the same country, for the purpose of broadening the mind of the student, Mainland China offers some of the same challenges and benefits as going overseas. Currently approximately 15% of PolyU Service-Learning is conducted in Mainland China, and slightly under 10% in foreign countries, although the numbers fluctuate quite a bit year by year. We are continuing to expand the non-local (away from Hong Kong) programmes.

There is a commonly held belief that academic exchange is effective in helping students develop a global perspective, that an immersive experience in a foreign country reaps great benefits. It is on this basis that universities and funding agencies invest considerable resources in sending students on a wide range of expensive exchange programmes, both academic and extra-curricular, some purpose-designed and structured but others quite free-formed, some monitored but others where students are essentially on their own.

However, we have learned that exposing students to a non-local experience may not be, by itself, sufficient to significantly enhance the desired aspects of their intercultural competencies and global citizenship. This has been evidenced by practical experience as well as systematic research and analysis. It requires purposeful, targeted preparation and effort to make the exposure meaningful and beneficial to both students and the host community. This is particularly important in achieving specific learning objectives. Generally speaking, it is easier to achieve desired competencies, but much harder to change attitudes and behaviour.

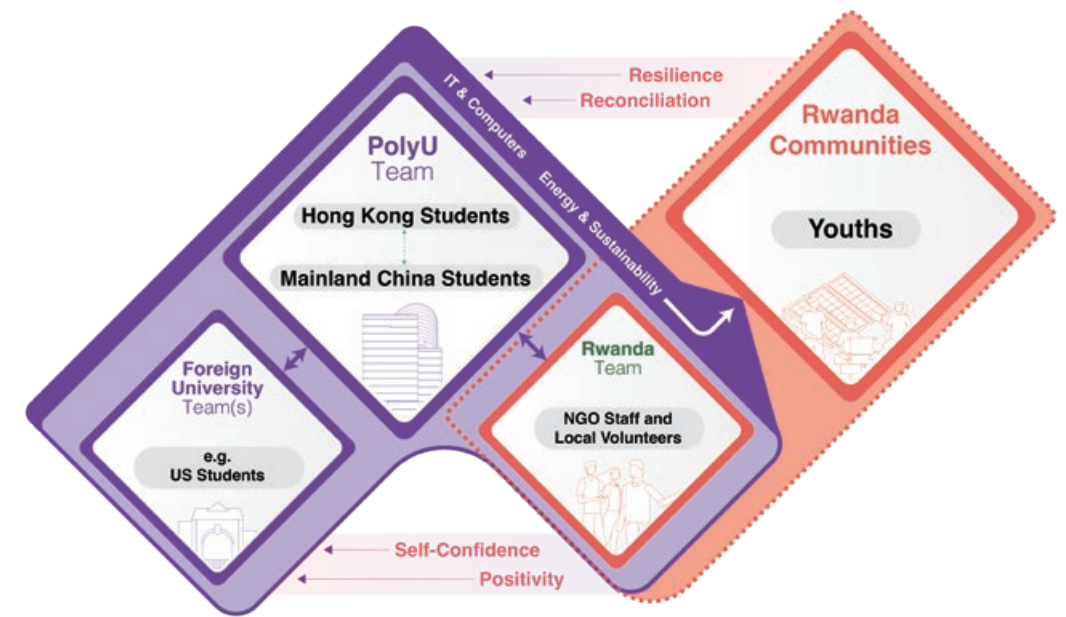


Figure 9-1. International Service-Learning such as conducted in projects in Rwanda is instrumental in cultivating cross-cultural competency and global engagement. This picture highlights some of the typical opportunities for cross-cultural interaction and learning.

First Round – Increase in Intercultural Competency but not Global Civic Engagement

We started our research in this area with a small-scale study into one of our international Service-Learning subjects. The study demonstrated that while international Service-Learning does enhance students' intercultural effectiveness development, it did not lead to significant increase of their global civic responsibility and global civic engagement scores. When we received the initial results from the study, it was quite an unpleasant experience to see the strikingly negative results in relation to global engagement, even though the rest of the results were quite encouraging. It was particularly disappointing because our teaching team had put much effort into designing the project for a foreign country, preparing the students for the project meticulously, overcoming many

logistical and technical challenges, and implementing the project successfully. We were achieving good learning outcomes relevant to Service-Learning overall and very encouraging feedback from our overseas partners. Upon reflection, we realised that it served as a timely reminder of the necessity to not only not take things for granted, but also to understand that continuous monitoring and evaluation was necessary. Our regular monitoring of the Service-Learning programme also showed wide variations in student learning gains across different international Service-Learning projects.

Subsequently, in 2016, we secured a grant to carry out a larger scale follow-up, two-year action research study, involving five Service-Learning subjects covering nine non-local projects from a broad spectrum of disciplines. The subjects were taught by the same subject teachers and conducted at the same service sites over the two years of the study, to ensure that the consecutive cohorts were comparable, as far as possible. The nature of the service projects varied among the subjects, ranging from English teaching and public health promotion, to installation of small-scale energy systems using solar panels. These projects served a variety of communities, ranging from primary school village children to households in deprived urban areas and rural village dwellers. The service sites were in Cambodia, Vietnam, Rwanda, and Mainland China. Data were collected in two cycles, in the 2016/2017 and 2017/2018 academic years, with enrolments of 319 and 312, respectively. The study made use of quantitative and qualitative methods.

The quantitative and qualitative results from the first cycle of investigation into the 2016/2017 cohort were analysed and disseminated to all members of the research team. We wanted to test the commonly held belief that international Service-Learning facilitates students' global citizenship development. The data from the first cohort only partially validated that belief. There was indeed a significant increase in the students' overall Global Citizenship Scale score, but the increase was mainly attributable to the large increase in the Global Competence Sub-scale score. There were no significant increases on the Social Responsibility and Global Civic Engagement Sub-scales. In terms of qualitative data, we were somewhat surprised to learn from the interviews with students

that many did not know what global citizenship was and very few of them reported improvement in this aspect. Upon closer inspection, however, this phenomenon was not that surprising since the students were not explicitly taught those concepts in class. Results from the first cohort also confirmed the difficulty of changing students' attitudes and beliefs in a short period of time; teaching or learning a skill (competency) is much easier than changing a deep-seated attitude (responsibility and engagement). Furthermore, although global citizenship is deemed an important goal of non-local Service-Learning, many teachers participating in the study admitted that they had not explicitly included global citizenship in the intended learning outcomes or the syllabus of their subject. They also made little conscious effort to foster its development through the Service-Learning experience. That could be due to the common, implicit belief that an immersive experience outside of one's home context will automatically engender these desired outcomes. In addition, it was believed that some items on the measurement of the global civic engagement dimension might not be so suitable for Hong Kong students. Civic engagement may take many different forms in different communities and, since the tools were believed to have been developed in an American context, some adjustments may have been required for their application in the Asian/Hong Kong context. Further investigation was seen as necessary.

The results from the first cohort were discussed extensively in our community. Practices, experiences, problems, and observations derived from the first round were shared among the subject teachers. Possible ways to improve student learning in the areas where the expected results had not been achieved were proposed. One critical finding was that while all teachers favoured the nurturing of a sense of global citizenship and intercultural effectiveness through non-local Service-Learning, these were generally not consciously and explicitly incorporated in their teaching practice. There was a lack of awareness or understanding of civic learning outcomes, global citizenship, and intercultural effectiveness as important goals of non-local Service-Learning and of how these might be achieved. In some cases, there was also only limited understanding of the history and culture of the served community, and little opportunity for students to interact closely with local people of the served community.

Second Round – Explicit Teaching Leads to Improvement in Global Citizenship

What we learned from the first cycle of the action research project was a wake-up call. We had thought that if we worked hard to develop a challenging project with real beneficial impact for a community away from home, the students would learn to be better global citizens, with better cross-cultural skills, more interested in engaging with the world, and be more willing to take up the responsibility to address global issues. It turns out that such learning does not follow automatically from exposure, not even if the exposure is immersive. We learned that we must teach much more explicitly, and purposefully. We need to explain to the students what it is that we are trying to teach them, why it is important, and how what they are being asked to do contributes to their learning. Armed with the lessons learned, we got to work.

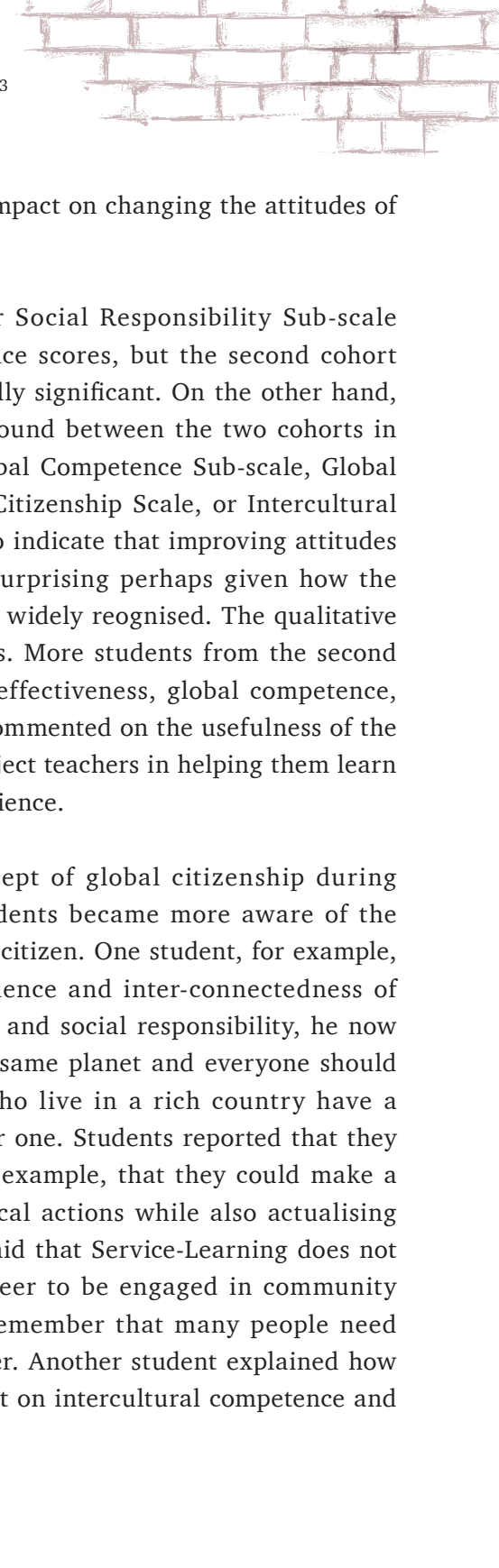
The subject leaders involved designed several “interventions” driven by the lessons and referring to international best practices identified from the relevant literature. Teachers of different subjects took the various steps they considered appropriate for their own subject. The interventions undertaken included lectures on the concept of global citizenship and intercultural effectiveness; lessons on human geography, and the cultural and historical background of the local community; many weeks of three-hour global classrooms to enhance collaboration between students from Hong Kong, Cambodia, and the United States; nightly written reflections to address the themes of global citizenship and intercultural effectiveness; visits to local attractions, museums, and cultural heritage sites; local city hunts; and home visits with local families.

The interventions were adopted for the next cohort in the following year. Subsequently, in our quantitative study of the following cohort, statistically significant increases were found in the students’ overall score on the Global Citizenship Scale, as well as their scores on the Social Responsibility Sub-scale and the Global Competence Sub-scale. There was a statistically significant increase in the score on the Intercultural Effectiveness Scale as well. Evidently,

the interventions were having some positive impact on changing the attitudes of the students as well as their skills.

Both cohorts showed increases in their Social Responsibility Sub-scale scores between their pre- and post-experience scores, but the second cohort exhibited a larger increase that was statistically significant. On the other hand, no statistically significant differences were found between the two cohorts in their respective pre-post changes on the Global Competence Sub-scale, Global Civic Engagement Sub-scale, overall Global Citizenship Scale, or Intercultural Effectiveness Scale scores. The data seemed to indicate that improving attitudes remained a considerable challenge, hardly surprising perhaps given how the difficulty of changing deep-seated attitudes is widely recognised. The qualitative results corroborated the quantitative findings. More students from the second cohort reported gains in their intercultural effectiveness, global competence, and social responsibility; and many of them commented on the usefulness of the intentional intervention introduced by the subject teachers in helping them learn from the international Service-Learning experience.

After the explicit teaching of the concept of global citizenship during lectures and discussions in debriefings, students became more aware of the concept and the importance of being a global citizen. One student, for example, stated that with respect to the inter-dependence and inter-connectedness of people, with further implications on equality and social responsibility, he now realised that everyone together occupies the same planet and everyone should be treated the same way, and that those who live in a rich country have a responsibility to help those who live in a poor one. Students reported that they were inspired by their teachers’ sharing, for example, that they could make a difference in other people’s lives with practical actions while also actualising their dreams. One recalled that his teacher said that Service-Learning does not teach that one must give up your job or career to be engaged in community service full-time, instead that we need to remember that many people need our help even while we pursue our own career. Another student explained how nightly reflection helped him frequently reflect on intercultural competence and



global citizenship. They were asked to write down their thoughts in a notebook; not only what they did, but also how they managed with communicating with people of different backgrounds, and how they could help the target community. Through frequent reflection, they increasingly realised that it is their responsibility to help people, including those of different races.

The study supports the belief that non-local Service-Learning can positively impact students' learning outcomes. After the improvement steps had been taken, positive impact was demonstrated in students' intercultural effectiveness and global citizenship development. The study reaffirms that action research serves as an effective strategy for teachers to monitor and improve the impact of their own international Service-Learning projects on students' learning and development. However, it is important to note that not all intervention steps worked equally well, every time. For example, one teacher devised an improvement action in which her students would bring local schoolchildren to a local history museum. However, the museum was very crowded on the day of their visit, and logistical and operational challenges meant that they did not have sufficient time at the venue. This also suggests that any improvement actions must be well-planned in advance with sufficient peer support.

9.2 e-Learning

PolyU excels in science, engineering and technology, and it is a natural extension for us to integrate these fields into our teaching. In the case of e-Learning, PolyU was an early adopter.

Service-Learning encompasses topics and pedagogical approaches that are not commonly encountered in other disciplines. These critical theories are essential for both educators and students; however, given the time constraints of limited teacher contact hours, it is not desirable to spend class time on this content. Therefore, we decided to leverage the University's strengths in

e-Learning by delivering this content online, thereby freeing up class time for more substantive interactions.

Teacher Training

e-Learning Course for Teachers

Funding from a UGC Teaching Development Grant (discussed in section 8.1.1) was used to develop the "Service-Learning Pedagogy & Practice" e-Learning course for teachers. The course comprises the following units:

- What is Service-Learning?
- Benefits and Challenges of Service-Learning
- Developing and Sustaining Community Partnership
- Designing and Implementing Service-Learning
- Facilitating Reflection
- Assessing Students in Service-Learning

Although some of the content, such as that related to the basic concepts of Service-Learning, is similar to that in the version for students, much is quite different. The difference is similar to the difference between a textbook for students and the accompanying teachers' guide.

The origins of this e-Learning course can be traced back to an earlier module, funded by the United Board for Christian Higher Education in Asia. Shortly after the Service-Learning Requirement was approved, the United Board agreed to seed this initiative by funding resources on teacher development. We are very grateful to the United Board for being one of our earliest supporters, and for continuing to be a friend.



Teacher Development Course

The e-Learning course is used as part of the teacher training course, “Service-Learning in Higher Education: Teacher Development Course”, which was also subsidised by the UGC Teaching Award we received. This way the course could be financially viable while keeping the course fee low.

The teacher development course was designed to run in face-to-face mode in Hong Kong, with a field experience trip to Cambodia, as was done in summer 2019. In 2020, however, the social distancing restrictions imposed as a result of the coronavirus pandemic made travel impossible. Hence, the teacher development course was run in online mode, with 22 participants (10 from PolyU, five from The University of Hong Kong, four from the Open University of Hong Kong, two from Hong Kong Baptist University, and one from the Education University of Hong Kong). Such teacher training initiatives for Service-Learning are currently in short supply in Asia.

Localisation

We are starting to extend our experience in capacity building from higher education professionals to the secondary sector. With separate funding support, we have translated the e-Learning course into Chinese and localised it for the secondary context. With time, the e-Learning course will also be offered on other platforms to reach a wider audience in Hong Kong and Mainland China. Hopefully these efforts will go some way towards addressing the severe lack of teaching material for Service-Learning in Chinese.

An e-Learning Course on Service-Learning for Students

Previously, PolyU had developed an e-Learning module for teaching the

basic concepts of Service-Learning to our undergraduate students, to be included in PolyU Service-Learning subjects. The module has evolved through several iterations as we have gained more experience and, based on our experience, a new e-Learning course for a wider, non-PolyU audience has been developed. This new course is different from the earlier PolyU-specific module in several important aspects. First, the material was completely revamped to be more concise, based on the experience we had gained in running the PolyU-specific module for several years. Second, the content was adapted to be better suited to a wider audience. For example, case studies in the earlier PolyU-specific version made extensive use of projects carried out by PolyU teams. In the new version, a much wider range of projects, including non-PolyU examples, are used as case studies.

The new student e-Learning course, “Learn to Serve, Serve to Learn”, comprises the following units:

- What is Service-Learning?
- Benefits of Service-Learning
- Responsibilities, Attitude and Ethics in Service-Learning
- Reflection on Your Service-Learning Experience

The course includes a wide variety of learning activities, such as short videos, concept tests, and case studies with experience-sharing by students who have completed Service-Learning subjects. Based on the first and second rounds of piloting, the visualisation of the content was further improved, with enhanced graphics to provide a better learning experience. The course was fully launched in the second semester of 2019/2020 with an enrolment of over 2,300 students.

The e-Learning course for students can serve multiple purposes. The basic concepts need to be taught in essentially all Service-Learning subjects. By adopting the e-Learning course, a Service-Learning teacher can avoid duplicating the efforts that went into the development of the e-Learning course and, instead, concentrate on the specific content for their own subject. It can



also be used to ensure a degree of consistency in the teaching of basic concepts. Some teachers also use the e-Learning course as part of a flipped-classroom approach, whereby, after students have completed the e-Learning course, the teacher brings them together for face-to-face discussions on specific topics based on the material covered in the e-Learning course.

9.3 Scholarly Communities

International Association for Research on Service-Learning and Community Engagement (IARSLCE)

IARSLCE is the International Association for Research on Service-Learning and Community Engagement and is a key part of our journey in Service-Learning. On its web page, we read:

“IARSLCE connects scholars around the world to advance knowledge on Service-Learning and community engagement.”

“For over twenty years, IARSLCE has been known to thousands of scholars as a network that helps to consolidate the value of SLCE for our understanding of the world and communities and has helped to launch the scholarship of many brilliant publicly engaged researchers.”

IARSLCE is the only international organisation whose expressed primary purpose is to cultivate, encourage, and present research across all engagement forms and educational levels; and it fulfils its mission by embracing all research frameworks (e.g., positivist, interpretive, participatory, critical, etc.), methods (e.g., qualitative,

quantitative, mixed, etc.), and approaches (e.g., basic, applied, action, engaged, evaluation, etc.). The Association promotes high quality trans-disciplinary research across a wide range of approaches and forms and builds the capacity of scholars, practitioners, and community partners to engage in such research.”

For almost 20 years, until interrupted by the coronavirus pandemic, IARSLCE had been running a flagship annual international conference, usually in the USA, and attended by hundreds of people from all over the world. Our team has attended the IARSLCE conference and has presented our work there since 2016.

Through the paper and poster presentations at the conference, we have been able to learn about state of the art implementation of Service-Learning subjects across the world and benchmark our efforts against them. We are happy to note that our understanding of the core concepts and their application are comparable with the best. We have, of course, learned a lot about a wide range of research and have been able to adopt some important findings in our own work.

Through IARSLCE, we have been able to get to know many of the leading researchers and practitioners and draw on their expertise by engaging them as speakers at seminars, workshops, and conferences for our colleagues back in Hong Kong, as well as those in the rest of the Asia-Pacific region. Because of the great distances involved, most in the Asia-Pacific region find it difficult to travel to the IARSLCE conferences. Hence, bringing some of the excellent speakers to our region is one way to draw our community closer to the global Service-Learning community.

Furthermore, we have developed many collaborations with leading universities in Service-Learning. These include student exchanges, joint projects, online co-teaching in a global classroom, joint research, and other innovations.

These are probably some of the most valuable results of our participation in IARSLCE.

We have also presented and published many papers through IARSLCE, which has enabled us to share our insights with an international audience and compare our results with state of the art research and practice. Through this process, we have become aware that the IARSLCE community is still heavily North American-centric, despite its continued efforts to internationalise and diversify; there are significant Service-Learning communities in South America, Europe, Africa, and Asia who are under-represented at IARSLCE. Surely, these communities could benefit more from the wealth of expertise at IARSLCE, while the IARSLCE community could also benefit from the diversity of challenges, experiences, and insights from these communities – if we can bring these communities closer together. For this reason, Dr Stephen Chan joined the IARSLCE Board of Directors in 2019.

In many countries in the Asia-Pacific Region, there are strong influences of religion and distinctive cultural practices in many aspects of life, which may pose different challenges to Service-Learning. On the other hand, the multi-ethnic and multi-religion environment in many Asian countries exposes students to a plurality of experiences and challenges. In many Asian countries, young people are highly adept at leveraging advanced information technology and social media. These characteristics pose serious challenges but may also be conducive towards building a very dynamic Service-Learning community. Given the social isolation imposed by the coronavirus, these factors are becoming more and more relevant.

The IARSLCE community also appears to be populated more by people in the social sciences and humanities, with fewer participants from the hard sciences and engineering. It appears as though the hard sciences and engineering disciplines are less active in Service-Learning. However, perhaps they instead congregate around other events, such as, for example, the Institute of Electrical and Electronics Engineers (IEEE) Global Humanitarian Technology Conference (GHTC). Hence, there is plenty of room for growth at IARSLCE, in terms of internationalisation and diversification.

9.4 Technology-enhanced/driven/facilitated Service-Learning (TxSL)

It is common to classify Service-Learning into four major types: Direct, Indirect, Research, and Advocacy. There is at least one major type that seems to be under-represented in Service-Learning communities such as IARSLCE – those that are technology-based. Subjects of this type are typically carried out by the hard sciences and engineering disciplines. For example, many projects carried out by engineering departments at Purdue University, Carnegie Mellon University, University of Pennsylvania, Massachusetts Institute of Technology, Ohio State University, Imperial College London, and others, fall into this category. Many of these projects may or may not be classified explicitly as Service-Learning. Yet, they are (1) carried out as applications of engineering to address needs of the disadvantaged in the community, and (2) they are academic learning activities with clear learning objectives, often in the form of subjects carrying academic credit. Thus, they can legitimately be regarded as Service-Learning subjects.

For some reason, the results of research into subjects like these is not often presented and published in conferences such as IARSLCE. More likely, as suggested above, they appear at conferences such as IEEE GHTC. IEEE is the largest technical professional organisation for the advancement of technology globally. It is strongly committed to diversity, equity, and inclusion and sees no place for discrimination in their communities. A real-life humanitarian project may include needs assessment, academic, governmental and community partnering, engineering economics, sustainability, community ownership, entrepreneurship, and long-term engagement. Sample projects can include installation of solar panels to generate electricity, a bicycle-powered electricity generator, solar-powered aquaponics, improved indoor/outdoor cooking stoves, a human-powered nebuliser, a wireless network for disaster relief, and so on. This type of Service-Learning is sometimes referred to as “technology-driven Service-Learning”. Presumably the central role of technology in this type of Service-Learning may be the reason that researchers and practitioners in this area tend

to come from engineering-related disciplines and gravitate towards conferences such as IEEE GHTC.

Well-designed engineering projects based on proven technology have had tremendous impact on the lives of disadvantaged communities. For villagers that have never had electrical power and have been living all their lives around the availability (and unavailability) of natural sunlight, to now be able to work, cook, and study, until late at night because of the electricity generated from the solar panels installed on the roofs of their own houses is obviously life-changing. For villagers who have lived all their lives with dysentery due to the lack of clean water to suddenly have access to cleaner water from a properly designed water filtration project carried out by well-trained students is life-saving. The fact that engineering Service-Learning can have such impact should not be surprising. Engineering itself was invented and honed over centuries into tremendous expertise applying proven science in the service of humankind. It is just that usually engineering knowledge is applied by those who can afford it, but unavailable to those who cannot. If such expertise can be put to use for the disadvantaged, the impact is certain to be huge.

In the meantime, communities, such as those around IARSLCE, seem to focus more on the forms, methods, pedagogies, and research frameworks, which are populated more by researchers in disciplines such as education, humanities, and social sciences. Very often, however, they do not have access to the professional, discipline-specific expertise to tackle many of the hard challenges faced by the disadvantaged. It should be obvious there is potentially tremendous synergy between researchers concentrating on the pedagogy of Service-Learning and those focusing on the technologies that can be applied through Service-Learning projects.

On the other hand, Service-Learning has conventionally been regarded as a “high-touch” learning activity. Increasingly, technology has been used to enhance the interaction. This includes social media to facilitate group-work, multimedia and game-like environments to enliven interaction, augmented reality and virtual reality to enrich the experience, and much more. The social

distancing imposed by the pandemic in 2020 made face-to-face, physical interaction practically impossible and forced much Service-Learning to be scaled back drastically or even cancelled. At the same time, it created a vacuum into which technology could step to play a much greater role in facilitating Service-Learning – even, in some cases, almost completely replacing physical interaction. We shall refer to this kind of Service-Learning as “technology-driven Service-Learning”.

At PolyU, our Service-Learning has benefitted from our strong background in engineering and hard science. Professors have already created many Service-Learning subjects where their expertise has been applied to tackling hard problems. We have also increasingly used technology to enhance the practice of Service-Learning: online teaching, STEM education, game-like tools to facilitate group-work, video-conference-based global classrooms, and virtual environments for hack-a-thons. These are examples of “Technology-driven/enhanced/facilitated Service-Learning Projects” (TxSLs) where we will be investing much of our energy.

Technology-Driven Service-Learning – as General Education

Many serious social needs cannot be tackled effectively with only good intentions and effort. For example, to deal with a lack of electricity, one requires professional engineering expertise and serious investment. A lack of clean water likewise requires professional expertise in the management of water resources. Even the construction of efficient cooking stoves needs relevant engineering skills related to combustion. Integrating engineering into Service-Learning can certainly make for particularly impactful community service, especially in developing countries where engineering expertise is not always readily available. It also provides an effective way for students to apply their academic knowledge to solve real-world problems. Service-Learning in engineering has been well-documented in the last 20 years.



However, these programmes are generally only offered to engineering students. From our own experience, we have become convinced that non-engineering students can be equipped with the basic engineering skills to participate effectively in technology-driven Service-Learning projects. Taking this approach involves certain risks but, if successful, it makes the opportunity to participate in many impactful Service-Learning projects available to a much wider range of students who had previously been excluded. These projects can also benefit from fresh input from students who approach the project from very different perspectives.

We have experimented with this approach with several Service-Learning subjects. We shall illustrate this with one example, a two-semester Service-Learning subject offered by the Department of Computing – “Technology Beyond Borders: Service-Learning across Cultural, Ethnic and Community Lines”. Open to all undergraduate students, the subject has involved a wide range of projects over many years. In 2015 and 2016, the service projects involved infrastructure improvement in rural villages in Cambodia and Rwanda. The student enrolment was also diverse during these two years with, of the 85 students taking the subject, 51 (60%) were from year 1, 30 (35%) from year 2, and the remaining four students (5%) were in year 3. Of these students, only 32 (38%) were from engineering while the rest were from a variety of other disciplines including health sciences, pure sciences, and the humanities. As can be imagined, this diversity makes the teaching extra challenging.

There were two major projects. The first project was a provision of a solar energy system for rural villages, with the solar power solution taking the form of a public charging station shared between a group of nearby households. Families could recharge their battery from the station, with each station charging up to six batteries at the same time. Our students assembled the solar panels and wire up homes with basic electrical appliances. They also repurposed local sustainable materials, such as coconuts or palm branches, into lights for the villagers. The second project was a Community Learning Center that aims

to provide an informal learning space for village children and youths, both to supplement their regular school education and to serve as a resource for continued education and self-guided study. Two 20-foot-long empty recycled shipping containers were transformed into a computer learning centre and library respectively. A rooftop photovoltaic generator, a rainwater collection system, and ten low-cost computers were installed. In conjunction with the learning centre, students deployed a customised computer library with electronic learning resources to teach the local children about science and engineering.

Some key challenges for teachers throughout the project included:

- Equipping students with the necessary knowledge, technical skills, and hands-on experience. Since many of the students were not from engineering disciplines, only critical practical skills were taught. These skills included: use of power and mechanical tools; basic electronic circuitry; laser-cutting skills, soldering skills and assembly of LEDs; safety precautions for conducting an engineering project in a rural area, including risk assessment; installation of a solar power system; and the introduction to Raspberry Pi, a single-board computer used as a server to host e-Learning resources such as electronic books.
- Empowering the non-engineering students to work on the different aspects of the projects, such as product design and system testing, that are more human-oriented and multidisciplinary.
- Strengthening the teamwork between students from different disciplines and cultural backgrounds to develop team spirit and a sense of a shared goal.

Once the team got onto the field, the second phase of training was put into motion with the local students. In 2015 and 2016, 11 and 33 Cambodian students joined the team respectively. Their major was either in English or development studies. Even though they did not previously have contact with the team from Hong Kong, working in the same group for seven hours a day and participating in various orientation and site visit activities strengthened the team spirit and helped them understand the situation in the target community.





The team spent four days testing and training in a local university to finalise the design, assemble the solar systems and lights, and test all the deliverables. This on-site training allowed the Hong Kong students to transfer necessary knowledge and skills to the Cambodian students.

The projects were implemented successfully. All the targets were met and the community was very happy with the results. It is a gratifying validation – that the non-engineers can be counted on to implement an engineering project if the project is well-planned and the students are well-trained.

Student Learning Outcomes

The successful implementation of the engineering projects in Cambodia and Rwanda with non-engineering students working side-by-side with engineering students vindicated our belief that students from non-engineering disciplines are capable of successfully carrying out engineering projects if the projects are well-chosen and well-planned, and the students well-trained. The non-engineering students pick up basic engineering skills that they never thought they were capable of and, in the process, develop new-found respect and appreciation for engineering, as well as self-confidence in themselves. These positive outcomes were not originally part of the Service-Learning curriculum but have been gratifying nonetheless.

The intended student learning outcomes designed for the subjects were fully evaluated using three approaches: (1) grading by the teaching team according to the subject rubrics, (2) student' self-perceived learning gains, captured by pre-/post- and post-experience surveys, and (3) reflective journals submitted after the completion of the projects. The subject grading comprised three components corresponding to the three phases of the service: preparation, execution, and reflection. Each student was assessed by the two subject teachers and two tutors individually, and a meeting

was organised to finalise the overall grade, reconciling differences between the marks assigned by the different members of the teaching team. This last step is important to ensure consistency and fairness across all components, students, and graders.

Regarding the grading, engineering students received a slightly higher grade on average than the non-engineering students. However, the standard deviation in all aspects of the non-engineering group was higher. Among the top 20% of the students, 11 of them were non-engineering students while six of them were engineering students. Hence the best of the non-engineering students performed just as well as the engineering students, if not better. This situation also applies to the bottom 20% of the team, in which three students were non-engineering and 14 of them were students in technical disciplines.

Among the eight learning outcomes, the mean score was highest in relation to the personal aspect for both engineering students and non-engineering students. The mean score on self-reflection was the lowest – but still significantly higher than the mid-point 4 (“a fair amount”). Four learning outcomes showed a higher rating for non-engineering students while two outcomes had a higher rating for engineering students. However, the differences were small.

In conclusion, no statistically significant differences existed between the two groups. A qualitative evaluation of the reflection journals revealed similar results. This shows that the multidisciplinary approach can benefit both the engineering and non-engineering students. What makes this work are the engineering professors and their teaching assistants who are willing to work extra hard, taking on the additional challenge and prevailing. They are truly passionate educators deserving the utmost respect.¹

1 These results were published in the following conference paper: Lo, K. W. K., Lau, C. K., Chan, S. C. F. & Ngai, G. “When Non-engineering Students work on an International Service-Learning Engineering Project – A Case Study”, 2017 IEEE Global Humanitarian Technology Conference (GHTC 2017), San Jose, October 2017.





9.5 Community Impact Study–Cambodia

Engineering Service-Learning projects have been shown to bring positive impact to the community. However, many such projects focus on creating “first- or second-order changes” - which address mainly immediate needs, such as might arise as the result of an emergency or crisis, or on empowering individuals to meet their own needs. Through engaging the community in a sustained effort, an organised engineering project can create a “third-order change” which empowers the whole community. PolyU teams have been serving in Cambodia since 2010. Each year, the teams can only stay in the country for a short period of time, usually around 10 days. However, over the years, the many short trips made to Cambodia have combined into a sustained effort. To investigate the impact on the community overall, we conducted a study into extending short-term student engineering Service-Learning projects to build up capacity and help in the longer-term development of communities.

Armed with three years of experience in Cambodia, in 2013 our team started a university-community partnership project in Somrong village, Sen Sok district, which at that point was a semi-rural area 14 km away from the capital city of Phnom Penh. The villagers’ lives revolve around farming. Some of the younger residents have departed to work in factories and businesses in the city or even abroad. Most of the large number of children in the community study at a government primary school nearby. The site was on the main electrical grid and therefore electricity was available, though still expensive and unreliable, with frequent blackouts and brownouts. Running water was not available and water was collected from rainfall or bought in the city. There was no land-line phone service and the villagers relied on a cellular service for communication and access to the internet.

The First Phase – STEM and Home Stay

In 2013, the first phase of our partnership was launched with two community projects: (i) a STEM workshop at the local primary school and (ii) a community homestay programme in the village. A portable “Lab in a Suitcase” was developed to provide a viable and sustainable digital inclusion solution for the rural school. It was a mobile computer lab, which comprised a server and 10 smart phones with offline e-Learning resources (including, for example, more than 5,000 educational videos, Wikipedia for kids, and localised eBooks). Solar panels and batteries were equipped to power the devices. This Lab could be transported in a tuk-tuk (a motorised trishaw) for enhanced mobility. The STEM workshop was carried out by 23 PolyU undergraduate students in conjunction with a local NGO in the form of a week-long, demonstration workshop on digital literacy and innovative learning activities for primary school children.

In the meantime, we learned that many adults from the village were working in Phnom Penh or even outside Cambodia, leaving behind many children and elderly residents at home with limited support. After discussion with the villagers and some local volunteers, we decided together to set up a homestay programme for our students who were conducting the STEM workshop, partly as a method of income generation for the community, while also allowing our students to experience village life and culture in an immersive environment. This homestay programme started with four houses, which could accommodate around 30 people. The rest of the community also benefitted through being involved in the running of a centralised kitchen or providing transportation in the form of ox-carts or other farm transportation vehicles. By 2018, the homestay programme was in its sixth year and had hosted not only PolyU students but also many other youth organisations. In total, it has hosted almost 500 young people from Hong Kong, Korea, Taiwan, the US, and Australia. Encouraged by this success, the local organisation has initiated efforts on replicating this programme in another community in a neighbouring province.





Figure 9-2. (a) One of the houses involved in the Home Stay programme in rural Cambodia, where the students sleep on the upper floor; (b) the mosquito nets under which the students sleep. In the first evening, the frogs were so loud that the students could not sleep.

After the initial projects in 2013, we used the “Lab in a Suitcase” concept to conduct other STEM workshops in June 2014, while continuing to build trust and develop a relationship between the University, the neighbourhood, and local organisations. The villagers understood our motivation and were enthusiastic to engage. Over time, their behaviour and responses also changed accordingly. For example, when we first started doing home visits, we were asked to prepare a small bag of rice as a ceremonial gift as per local custom and partially to motivate the villagers to receive us. However, after one year, we became much welcomed friends and the villagers were eager to share stories about their family and themselves with us – with or without gifts. These projects turned out to be very successful both in terms of providing a valuable service, as well as building a trusting relationship with the community.

The Second Phase – Community Learning Centre

The second phase built upon solid experience and accumulated knowledge. In 2014, we investigated setting up a zero-carbon community learning centre in the village. The centre was envisioned to provide an informal learning space for village children and youths, both to supplement their regular school education

and to serve as a resource for their continued education and self-guided study. It was to be built from a recycled twenty-foot container, furnished with solar panels, computer devices, internet hotspot, books, and toys. A sustainable model would be developed by engaging local community leaders and empowering resident university students. Together with the community homeowners, the village chief, and a youth organisation, we identified an area located in the centre of the village. The chief gave us permission to set up the learning centre on the site, to demonstrate their commitment. The centre was erected during the summer of 2015.

For sustainability and long-term upkeep, the ownership of the centre belongs to the village – not only in formal terms but also in the reality of day-to-day operations. However, the village also had to be equipped to operate and maintain it. To build up their capacity, a scholarship scheme was established for three resident university students, covering 50% of their tuition fee. In return, they would organise and conduct a weekly three-hour session for the village children in the learning centre. Since volunteering was new to local students and they did not have any experience with organising or coordinating activities, we provided them with on-site training and established an online platform to give them emotional and technical support, and opportunities to share their experiences and reflections with the project team.

A return visit was conducted six months after the installation of the learning centre. It had become a public area of social activity with an average of 45 people (25 children, 10 youths, and 10 adults and elderly) visiting it on a regular weekday. Children usually visited it after school to read and play with toys, teenagers came in to access the internet, adults used the space around to gather and share news and information, while the elderly residents came to learn basic communication skills in English. The community proactively contributed to the collection of books and toys in the centre. Two months after its installation, the villagers initiated a fund-raising campaign to purchase additional books and other resources. In total, over 50 books in Khmer (the local language) were bought or collected, and other teaching resources, such as school bags, stationery, and colouring books were purchased.

While running the centre, the community leaders not only enhanced their leadership skills but also built up their capacity to address some of the underlying structural issues that gave rise to their initial needs. In addition to the weekly sessions for the village children which were a condition for receiving the scholarship, the local students initiated several projects to serve the surrounding communities, such as an elderly care programme for families from a nearby slum and an English workshop for the children nearby. In the meantime, one of the leaders, who was working in a local NGO, began inviting various overseas teams to join the homestay programme and offered to organise short courses or construction projects for the primary school.

The Third Phase – Launching a local NGO

The third phase was started at the end of 2015, when our team encouraged the local leaders to establish their own non-profit organisation. With a registered organisation, they could launch fund-raising campaigns, receive groups from other countries, and co-operate with the government. With support and coaching from the University, the core mission and vision were defined, and a financial model was created to generate income for the NGO to support their existing programmes. Finally, an NGO called "Young People Do" (YPD) was established in 2015. Over time, they expanded the scope of their services to other areas, such as health care. YPD obtained an association license from the government in 2016. Over time, YPD expanded its portfolio to work with teams from Hong Kong, Korea, Taiwan, the US, and Australia, offering a wide range of services and serving over 10 geographical areas in two provinces, Phnom Penh and Kampong Speu.

During the process of setting up the NGO, both the PolyU team and the village leaders shared views on different social issues and developed mutual understanding. The local leaders learned how to formally assess community needs, understand specifications and requirements for engineering projects and the resources involved, of both the NGO and local village, in supporting these types of projects. They also learned about the processes of procurement and tendering which were necessary for partnering with foreign teams. In the

meantime, the research team's intercultural competence was further developed, which enabled us to better understand the dynamics between villagers, communicate more effectively with local people, and collect their feedback.

In 2016, the homestay programme and the community learning centre were replicated at a village on Koh Dach Island, located about 21 km east of Phnom Penh. The same year, a new solar power project was started, whereby students from PolyU installed public charging stations for a group of nearby households to provide them with electricity. Families could charge their batteries from the station, and our students assembled the solar panels and wire up homes with basic electrical appliances such as lighting and mobile phone charging. These projects were extended to three villages located in Kampong Speu province to the west of Phnom Penh in 2017. Young People Do has become a small-but-mighty, much-trusted partner in many projects.

Challenges and Lessons Learned

Over the five years of the Community Impact Study, projects evolved from addressing immediate needs to capacity building for the future. To summarise the lessons learned:²

- Understand the Community – It took quite a long time, much discussion, patient building-up of trust, and not a little self-discovery to figure out and prioritise the concerns and needs of the community.
- Building up the Relationship – Capacity-building is a long-term endeavour. Initial scepticism and hesitancy have to be overcome by gaining mutual understanding and trust.
- Involve the Community – Success of all projects, particularly capacity-building,

² These results were published in the following conference paper: Lo, K. W. K., Chan, S. C. F. & Ngai, G. "Capacity-building and Development for a Local Community through Engineering Service-Learning Projects – A five-year study in Rural Cambodia", IEEE Global Humanitarian Technology Conference (GHTC 2018), October 18-21, 2018, San Jose, California, USA.

depends on the community taking ownership. We learned through the failure of some of our initial projects, when we neglected to draw the community into taking ownership.

- Multi-disciplinary Team – No one single discipline can cover all of community assessment, information/computer technology, youth training, teacher training, social design, and graphics/multimedia design.
- Sensitivity to Local Culture – The local culture and tradition of shared common property led directly to the design of the solar panel electrical power system – from one set of panels for each family to a public charging station shared by multiple families – resulting in much higher efficiency and saving of material and costs overall.
- Empowering the Community – Training the community to contribute to building and maintaining the system is harder than doing everything ourselves. However, it enhances the possibility of ultimate success and longer-term sustainability.

In the process, the whole Office learned, grew, and matured – directly or indirectly. Kenneth Lo, in particular, has become our “Old Cambodia Hand”, who has been to Cambodia more than 20 times, conducting reconnaissance, making connections, developing new projects, preparing for projects, purchasing equipment and material, supervising projects, and researching. He has also leveraged his vast experience into the role of a “chief of operations” for many more projects not only in Cambodia, but also in Hong Kong and Rwanda. We are so grateful to Cambodia for acting as a wonderful training ground for our team.

9.6 Community Impact Study– Capacity-building in Rwanda

Most of our Service-Learning projects align with one of the United Nations’ 17 Sustainable Development Goals. One of our flagship projects started in

Rwanda in 2013. Quickly, we realised that one of the most fundamental needs of the country, to which we might be able to make a meaningful contribution, is related to SDG#7 (Affordable and Clean Energy). In the process, we developed together with our local partner, a methodology related to SDG#17 (Partnership for the Goals – Capacity-building).

Much of the Rwanda story has been told in the earlier chapters of this book (e.g. Chapter 8). This chapter will trace the evolution of the partnership facilitated by the Service-Learning projects between ourselves and our community partner, the local NGO African Evangelistic Enterprise (AEE) Rwanda.

Moving down the Maslow Hierarchy

Our Service-Learning journey in Rwanda started in 2013, with digital documentation and technology training projects targeted at building up the capacity of our local NGO partner and a few educational institutions that they worked with. These projects brought us deeper into the rural countryside where we saw a side of Rwanda that differed quite dramatically from the bustling cityscape of Kigali. This exposure gave us some insights into additional, perhaps more critical, areas of need that might be within our scope to serve.

Rwanda sits right on the equator, blessed with plenty of sunlight all year round – perfect for the exploitation of solar energy. The government is building large-scale solar panel farms with multi-megawatt capacity but it will still take many years to electrify the whole country and, even when electricity is brought to a region, plenty of gaps remain.

The impact of the lack of electricity goes beyond simply a shorter workday due to the lack of artificial light pervading into all areas of life. Being used to the situation in Southeast Asia, where many communities compensate for poor national infrastructure with their own improvised electrical setups (e.g. car batteries and cheap China-sourced 12V DC lights), we were very surprised to see that these solutions are very rare in Rwanda. Households rely on candles or

kerosene to provide light and many cannot afford to purchase even these basic materials. Radios were very rarely seen. The fields – with relatively infertile soil – were still tilled by hand. The terrain was so rugged that even to our untrained eyes, getting electricity to the communities would take massive amounts of capital and effort.

There was a general overwhelming sense of isolation and a community that was trapped in a vicious cycle from which it is very difficult to escape. Many young people, upon finishing secondary school, cannot find a job in the city and find themselves stuck in the village farming as their parents did, but the small size of the individual plots, the low level of technology available, and the energy poverty make it hard for the farmers to advance beyond subsistence farming. Their isolation is such that they have no way to find out whether and when jobs are available. In their village up on the hills, there is no newspaper, no television, and few radios. They can hardly afford the batteries to run a small transistor radio even if they have one. The public buses reach only as far as the small clump of houses at the foot of the hills, 10 kilometres away. Kigali is practically unreachable, physically as well as developmentally, for most of them.

The energy poverty struck us as one of the things that we could address through Service-Learning and perhaps be something that would be of a bigger impact than the education-based projects that we had been conducting. For, what use would it be for us to teach the children technology or a language, when there is a very high likelihood that they will be trapped as a subsistence farmer? More to the point: when this is something that we could contribute to, should we not pivot our resources and efforts to where they might do the most good?

The first solar electricity installation project was launched in 2015. Aided by our NGO partner AEE Rwanda, 44 households were identified. These were families that our partner had been working with; most of them were members of the self-help groups run by AEE Rwanda and their household income level was among the poorest of the poor in the villages. We successfully installed solar electricity systems for those households over a two-week period that summer.

We were exhausted but exhilarated when the systems worked, and we were able to see how excited the families with the power system were. Now 44 families had electricity. But what about the hundreds of families in the same village who were still living in the dark? And those in the hundreds of villages beyond?

From Individuals to Communities

After the successful installation of solar panels in 44 households in 2015, discussions with our NGO partner and community members on the experience resulted in two observations: (1) due to the low power consumption of the electrical devices, it was not necessary to charge a battery every day, hence the solar panels were not fully utilised; and (2) the households with the solar panels were uncomfortable when so many of their neighbours could not benefit.

The transition to the community-based “solar charging station” model has been described earlier in this book. This adaptation required change not only in the design and other logistics of our project, but also in the way that our NGO partner worked with communities. Prior to this, AEE Rwanda mostly worked with self-help groups, rather than with entire communities. This model would ultimately impact the entire community. For us, this meant that we had to adapt from the model that we used in Southeast Asia, where we would build a simple structure, resembling a set of shelves with solar panels on top and batteries below, on public land where houses were clustered together. This model would not work in hilly Rwanda, where the houses were far apart and scattered.

Our adaptations built on the communal, sharing culture common in the rural communities and encouraged through the self-help group model very successfully promoted by AEE Rwanda. AEE Rwanda helped us identify households “of reputation” in the community, who would act as “hosts” for “solar charging stations”. The host was required to designate one room that would be wired up as a charging room, where community members would bring their batteries to be charged. The host would be responsible for maintaining the security of the system and making it available for the community. A set

of 12 solar panels (240W) would be installed permanently on the roof of the host's house which would be wired up and connected directly to the solar panel system, thus ensuring a constant supply of electricity.

Sufficient “households of reputation” were identified to ensure that the majority of households would not need to walk more than 20 minutes to get to a charging station. A battery can be fully charged in about half a day and the charge can be used to power a house for about one week. This trade-off of a regular but infrequent, relatively short walk was considered an acceptable price for access to electricity and spreading the benefits over a much wider group of villagers.

Community Capacity Building Model

The immediate benefit of the community-based model was a sizeable increase in the number of households that could be served by the project, without needing a huge increase in budget and team size. Since the cost (purchase and transportation) of the small electrical appliances and wiring were much smaller compared with those of the solar panels and controllers, the project could benefit many more households, with only an incremental increase in cost. We can now realistically aim to cover whole villages with hundreds of households.

This transition to a community-based model introduced two new challenges. One is the increase in the level of technical challenge. Obviously, a solar charging station would be more complex than a single-panel family installation, the design, construction, and maintenance being more difficult. The other is the greatly increased overall scale of the project. In our first project involving 44 households, the installation was conducted wholly by our own students, supported by a few AEE Rwanda staff for interpretation and negotiation. This would not scale up to the level of an entire village (or even half a village). We would need more manpower and more elaborate logistical planning and management. Essentially, we would need to shift more of the focus towards building up the capacity of the local community.

Transferring relevant knowledge and skills has always been part of our objective. As the proverb says, teaching somebody to fish is better than giving them a fish. Helping the community help themselves is a longer-term, sustainable approach. However, in a context that is so drastically different from one's own, how does one determine what skills to pass along, who to pass them to, and how to actually accomplish this? In our particular case, we also have to work with very basic levels of literacy in a very inaccessible location.

Our answer is a three-tier capacity building model. We have (1) a Project Team, who are the masterminds behind the project, (2) a Bridging Team of members from the frontline NGO partner and/or students from local technical training institutions or universities, and (3) a Community Team of residents.

The Project Team are the teachers and students engaged in the PolyU Service-Learning subject, together with the partner NGO, in this case, AEE Rwanda. The PolyU team are mostly Chinese but may also include exchange students or students from our partners. The partner NGO is obviously local Rwandan. The Project Team is the primary designer. AEE Rwanda identifies the community and negotiates with community stakeholders on the specifics of the community engagement, i.e. entering, building and exiting the community. PolyU considers the context and the need and designs an appropriate technical solution in consultation with AEE Rwanda.

The Bridging Team consists of locals with a reasonably high level of literacy. They are local to the national culture and context, though not necessarily to the specific service community, which they may never have encountered before. Many of them are student volunteers from the local technical colleges or universities. Their motivation for joining the project is often curiosity, either about the project itself or the incoming team, together with a desire to help their country. Their role is to serve as peer guides to the project team students and to translate the project team students' engagement into the local culture and context.

The Community Team is comprised of resident community members, most of them young people who are unemployed or underemployed. They have the most intimate knowledge of the community and have the most to gain from the success



of the project. Their empowerment can be seen as the critical ingredient for success. However, because of the relatively low level of education achieved and English proficiency, it is also one of the most difficult to ensure.

The Project Team designed a certificate-bearing learning programme to recruit the Community Team. The entry requirements are set to be achievable by most young adults in these communities: Participants are required to (1) have some level of basic education (i.e. be able to read and write in their native language), and (2) have a reputation for commitment, integrity, and responsibility in the community. The programme follows a just-in-time, learning-by-doing model that resembles the “industrial training” modules mandatory for engineering students in Hong Kong. The community team is tasked to work alongside the project and bridging teams of university students to carry out and implement the project. Hence, the project essentially serves as a practical learning programme.

Execution of the Solar Panel Project

The solar panel project started approximately six months before the actual PolyU deployment in Rwanda. PolyU students on the Project Team underwent a series of about 36 hours of structured and rigorous training in the form of lectures, seminars, group discussions, and technical workshops to equip themselves with the necessary background (historical and cultural) knowledge, technical knowledge, and skills using relevant tools. The second phase of training started when the project team arrived in Rwanda. Together with the Bridging Team, they spent about eight hours in testing and training to finalise the design, assemble the solar panel system, lights, switches, controllers, and so on, and test all the partially assembled sub-systems. This on-site training and preparation helped transfer their knowledge and skills to the Bridging Team. Finally, the systems were deployed in the village where the project and bridging teams worked with the Community Team to install the system. Through teaching by demonstration, Community Team members learned, practised, and mastered the necessary technical skills, and some of them were able to help maintain the equipment in the long run.

The development of this three-team model has allowed us to scale up our project significantly. Between 2015 and 2023, over 1,000 houses have been wired up. The amount of electricity is not large – an iPhone would consume more electricity in a day than is used by the appliances in a week – but even this small amount of electricity has made an impact. The lights enable a family to extend its working hours for several hours beyond sundown for household work and entertainment. There is a sense of security where before there was fear – many families shared that “we are not afraid now” – perhaps, of a snake or an otherwise unwelcome intruder lurking in the shadows. The capacity for mobile phone charging and a small rechargeable radio, which we included in the package in 2017, has improved the connectivity of the village. The radios in particular are extremely welcome; since they have been included, we have been able to track the progress of our project by listening for the sounds of a radio when we walk up to a house, which is an indicator of their usage and popularity! One family told us that since the light was installed in their home, their children’s schoolmates from neighbouring villages often come to study at the weekends, which appears to have positively impacted their children’s school performance. Another family told us that they now no longer need to send their children to bring the mobile phone for charging at the village centre, thus their children can get to school on time (they previously used to bring the mobile phone for charging twice a week before school).

The Community Team’s impacts are felt far beyond each year’s project. Other than the staff from the two collaborating partners (PolyU and AEE Rwanda), the Community Team members have proven to be the most consistent over the years that the project has been carried out. In the four years between 2016 and 2019, the project proceeded to provide electricity to several villages across two valleys in the Gikomero sector. The majority of the students from the Project Team usually participated once – when they were enrolled in their Service-Learning subject. The same applied to the members of the Bridging Team, who built up strong friendships with the Project team students that were often maintained outside of the project. The Community Team members, on the other hand, returned year after year to participate in the project. After the first year in 2016, they were skilled enough in the procedures that we could essentially treat them as independent team members, who could be assigned houses to wire on their own, with the Project and Bridging





Teams stepping in only when complex problems were encountered and sophisticated debugging was required. Indeed, some members of the Community Team became so familiar with the project that our students learned to call on them (e.g. “Big Mama!” “Gaspard!”) rather than always on their teachers. When COVID-19 suspended international travel and forced our project into “tele-engineering” mode (Chapter 11), AEE Rwanda recruited members of the Community Team to serve as the leaders of the “arms and legs” on the ground. Post-COVID, even though the project has shifted to another province, key Community Team members continue to participate, giving a hand to building up yet another Community Team in the new location.

A heartwarming story reminds us of the dedication of the Community Team members. One young man had been joining the project since 2016. During the 2018 project, we observed that he was keeping back some of the small pieces of equipment – wire clips, light switches, and the like. It was slightly disconcerting, especially when we started to run short of some of the equipment and needed to improvise (e.g. using nails and galvanised wire to hold the electrical wires to the walls instead of proper wire clips). It turned out that his house was on the list to be wired up that year, and since it was quite remote and far from the main road, we had scheduled it at the tail end of the project, almost on the last day. His excitement when we arrived at “his” house and his pride when he asked to be the main person wiring up the house for his family (as in, he specifically requested that our students step back and only step in when needed) was a joy to behold, and a humbling reminder for us of the community spirit when we recall that he had been wiring up houses for other members of his community for two years before his house came up on the list.

Having evolved over several years, the success of this project has, obviously, depended on long-term collaboration. In the process of designing, revising, and executing the project, the University Project Team, the NGO Bridging Team, and the Community Team have built up trust and respect for each other, and all sides have grown in experience, confidence, and capacity. This is demonstrated in the growth in the number of households served per project, both in absolute terms and as a function of the size of the project team. The collaboration developed into a base from which we can now launch projects into other dimensions of quality of

life besides electricity. In 2019, two additional teams were brought on board to join the project in Rwanda: tackling SDG#2 (Zero Hunger) and SDG#15 (Life on Land) through a vegetable garden and a rocket stove project.³ †

³ These results have been published in greater detail in a conference paper: Lo, K. W. K., Chan, S. C. F., Ngai, G., John Kalenzi, Phanuel Sindayehaba, Innocent Habiyaereye. “From Beneficiary to Community Leader: Capacity-building through a Renewable Energy Project in Rwanda,” 10th IEEE Global Humanitarian Technology Conference (GHTC 2019), Oct 29 – Nov 1, 2019, Seattle, Washington, USA.



Chapter 10

Socially Responsible Global Citizens

When Service-Learning was originally contemplated as a core subject in the revamped undergraduate curriculum in 2010, the objective was reasonably simple and straightforward. In fact, many staff and students, even decision-makers, were focusing on the fulfilment of the Service-Learning Requirement. That was, of course, only an operational target, while Service-Learning is much more than that. Even the higher order objective – to get our students more engaged with the community – however, is relatively focused and narrow. Service-learning is much more than a self-contained method to achieve a single learning objective.

The connection of Service-Learning to the cultivation of many desired attributes was not initially perceived to explicitly be part of Service-Learning. Gradually, it became clearer and clearer that Service-Learning does not stand alone and is certainly not only an end in itself. Engagement has to be motivated intrinsically by compassion and a sense of responsibility, which is something we have to learn to teach and cultivate. Effective service and engagement require and, in turn, nurture leadership. As much as it is aimed at students, the same is true and, perhaps even more so, for the teachers. Although both are important, Service-Learning is more about values and attitudes than skills and competencies. Values and attitudes cannot really be taught but can be encouraged, nudged, and cultivated; there is no better way to do that than through teachers who embody those values. It does not work to tell the students: “Do what I tell you, not what I do.” Thinking students would question: “If it is so good, why are you not doing it yourself?” In fact, trying to teach Service-Learning with the wrong teachers may actually be counterproductive.

From another perspective, our community is rooted in the small place that is Hong Kong, with seven million people cramped into 1,000 square kilometres, a

piece of land less than half of the size of Luxembourg. However, we are part of a big, rapidly evolving country with a population 200 times the size of ours. We have also long been positioned as an integral part of a globalised world, exchanging and trading with practically everyone. It is said that Hong Kong is a small place with a big ambition. Hence Service-Learning must be conceptualised as contributing to the education of global citizens who are socially responsible and it is this, reflecting our commitment, that we have written into our University mission statement. We have consequently taken a number of strategic actions to achieve that vision.

10.1 Socially Responsible Global Citizens

Every five years, PolyU updates its Strategic Plan. Around 2017-2018, there was much discussion in preparation for the then upcoming 2019/20-2024/25 Strategic Plan. By this time, we had graduated several cohorts of students who had all completed the Service-Learning Requirement. The positive learning outcomes achieved by the students were evident in many respects – evidenced through the performance and enthusiasm of the students, validated by rigorous research, manifested in the quality and impact of the project deliverables, and reflected through the material interest from donors and other stakeholders. Under the section “PolyU Today”, the Strategic Plan states,

“The University’s pioneering Service-Learning programme integrates academic study with community service, inspiring students to apply professional knowledge and skills to serve the underprivileged and give back to society. To date, nearly 13,000 students have spent more than 510,000 hours providing services for over 68,000 needy people in Hong Kong, the Chinese mainland and overseas.”

As a result, when it was proposed to include social responsibility as a desired graduate attribute, it was quickly accepted by the working group drafting the relevant section, although there was still to be much discussion on the exact wording.

The Mission Statement, as presented in the 2019/20-2024/25 Strategic Plan, now reads in part:

“... To nurture critical thinkers, effective communicators, innovative problem solvers and socially responsible global citizens. ...”

Under “Quality of the Student Experience of Teaching and Learning”, it states

“... Identify themes of interdisciplinary Service-Learning and social innovation projects for deeper and broader impact. ...”

Under “Knowledge Transfer and Wider Engagement”,

“... Integrate identified themes into interdisciplinary Service-Learning and social innovation projects for deeper and broader impact. ...”

Under “Enhanced Internationalisation and Engaging the Nation”, very much in line with our strong effort on international Service-Learning,

“... Strive to provide every undergraduate student with an opportunity to take a student mobility programme outside Hong Kong, and diversify students’ non-local learning opportunities. ...”

There is plenty of evidence that Service-Learning and community engagement have become a critical element of PolyU education, and very much part of PolyU culture. We have come a long way since 2010, when the Senate first decided to make Service-Learning credit-bearing and compulsory. We are, of course, not done. Service-Learning, like education itself, is an on-going, continually self-improving process.

10.2 From OSL to SLLO

Service-Learning and Leadership were adopted as twin pillars of the General University Requirement in late 2010, to come into effect with the first cohort of four-year undergraduate programmes who entered PolyU in 2012. The leadership subjects develop a student’s personal attributes while Service-Learning develops the social aspects, the subjects complementing each other. While we were teaching the Service-Learning subjects, we became more convinced that a student needs leadership skills to succeed in Service-Learning and that Service-Learning, on the other hand, provides a perfect platform to practise and internalise leadership skills and attitudes.

Leadership is certainly a useful skill when students work in a team, particularly when that team comprises students who do not know each other, who come from different academic disciplines and even nationalities, and ethnic and cultural backgrounds. It is needed when they tackle an open-ended social problem without clear boundaries or rules in the reality of the messy real world – as opposed to clearly defined problems with closed-ended solutions carefully constructed by their professors in the classroom. It is particularly relevant when they deal with flesh-and-blood people with real needs, expectations, and vulnerabilities, people without sufficient resources and finances. In other words, there are real, potentially, serious consequences to our actions. On the other hand, however, Service-Learning provides an ideal setting to test and validate concepts and skills learned in the classroom, building confidence through experience, encountering failures (hopefully small), and overcoming challenges. In the process, students discover themselves, develop their own leadership models and build character.

Equally important, the experience gives us teachers the motivation and confidence to integrate leadership education with Service-Learning. This also results partially from necessity: we need to teach planning, communication, coordination, and negotiation skills that facilitate teamwork; we need to teach understanding, accommodation, and reconciliation of diverse viewpoints to deal with the real world of social issues; and we need to guide students in synthesising diverse contributions to formulate effective actions and solutions. Gradually we experiment with projects, subjects, and programmes which integrate Service-Learning and leadership education. The success of these necessary actions give us the confidence not only that we can achieve integration of the two, but also that the integration will be productive.

In the meantime, we are also increasingly internationalising Service-Learning. This is internationalisation in the sense of dealing purposefully with diverse nationalities, languages, cultural traditions and practices, religious faiths, political systems, economic systems, and more. Even within the physical confines of Hong Kong, we encounter internationalisation in the form of ethnic minorities, recent immigrants, cross-border travel, commerce and employment, and arriving refugees. These issues must be faced by students for them to be successful in their learning and careers. By bringing students to deal with these issues in person, Service-Learning has been proven to be very attractive, challenging, and powerful for student learning while bringing about meaningful community impact.

Another dimension that has become increasingly relevant is the role of technology. PolyU has a very rich science and technology heritage, with more than half of our academic programmes in science and technology. Much of our Service-Learning is either technology-driven or with the service enhanced by significant use of technology, or with the teaching/service being facilitated by the use of technology, particularly digital technology. There is a natural intersection between digital technology and leadership – digital leadership!

Around 2018, while PolyU was engaged in the process of re-writing the Strategic Plan, the University management was also considering the positioning of a small team under the office of the Vice President (Student and Global Affairs), Professor Angelina Yuen, which had been working on leadership training projects

in the international context. The team, led by Ms Helena Au, had been trying to incorporate some form of Service-Learning into their projects and share some common objectives with the Office of Service-Learning (OSL). In the end, it was decided to incorporate the team into OSL and rename the office the Service-Learning and Leadership Office (SLLO), to reflect its expanded scope.

Shuheng Lin is a Senior Service-Learning Officer at SLLO. He has a PhD in Economics from Boston University in the USA and was an Assistant Professor at Xiamen University in Mainland China prior to joining PolyU during the COVID-19 pandemic. He has contributed to the teaching of a number of Service-Learning subjects and the application of innovative pedagogies, including online STEM teaching with University of Pretoria in South Africa, the remote engineering project (solar panels) in Rwanda, while he also took overall charge of the large-scale project involving more than 100 staff and students in Rwanda in summer 2023. He worked on international collaboration, including the Global Classroom in partnership with the University of Maryland in the USA and two-way exchange with the University of Southern California. Dr Lin has also conducted critical research on Service-Learning, particularly focusing on evaluating student learning outcomes.

10.3 Cultivating Leadership in Students

Digital Leadership – Socially Responsible Global Leadership in a Digital World

Long before Service-Learning became a requirement for the undergraduate

programmes in 2010, Dr Grace Ngai and Dr Stephen Chan had been running Service-Learning projects driven by technology, first in Hong Kong from the early 2000s, then in Mainland China starting from 2006, and in Cambodia starting from 2010. In 2011, they proposed one of the first Service-Learning subjects at PolyU – COMP2S01 “Technology beyond Borders”. It was designed for any student from any discipline and aimed at carrying out technology-related projects across national, language, ethnic, and cultural boundaries. We were, and remain, confident that we can train any intelligent and motivated student in the needed technology – graphical programming, multimedia, robotics, basic electricity, solar panels, or e-book writing – to carry out meaningful and impactful solutions to meet a specific social need.

Subsequently, the team realised that an entry-level Service-Learning subject such as COMP2S01 cannot handle projects that require greater professional expertise. There was a need to develop a discipline-specific version of the subject, COMP3911 “Service-Learning in the Information Age” – in order to tackle more technologically challenging projects. This subject is designed for students who major in computer science or related disciplines and who are then capable of carrying out projects that require more advanced skills such as rigorous programming, game design, the use of virtual reality and artificial intelligence, and other advanced skills. These students can then tackle projects such as developing database systems, interactive websites, and specialised computer games.

Later on, the team recognised the desirability of further advancing Service-Learning through explicitly incorporating leadership education into the subject. The result is COMP3S02, “Socially Responsible Global Leadership in a Digital World”. As the name indicates, the subject integrates Service-Learning, leadership, and globalisation in one subject. As the three major elements complement each other, we can infold a significant amount of content into a three-credit subject since much of the learning and teaching material serves multiple purposes.

We currently thus have a rich set of subjects with different foci: (1) an entry-level subject on cross-cultural, technology-driven Service-Learning, open to all; (2) a discipline-specific, more advanced subject on technology-driven Service-

Learning; and (3) a subject on Socially Responsible Leadership (SRL) through Service-Learning. Using this repertoire of subjects, we have been able to develop collaboration with other departments within PolyU, teaching jointly with other universities across the globe, experimenting with innovative pedagogy such as online teaching of Service-Learning, online execution of Service-Learning, and more. The following sections will discuss some of the major undertakings.

Teaching Socially Responsible Leadership – Jointly with the University of Maryland through the Global Classroom

In 2016, our team started working on a joint subject with a team led by Natasha Chapman and Anne Spear at the Leadership and Community Service-Learning Office of the University of Maryland (Maryland). The Maryland team created the subject HESI 418T: “Technology beyond Borders: Service-Learning and Leadership across Cultural, Ethnic and Community Lines” at Maryland, to match and run jointly with our own subject COMP2S01, with the same title. Several classes of the two subjects are taught jointly, interactively, online as a Virtual Global Classroom. The PolyU and Maryland teachers take turns to teach the joint class, with the inclusion of a considerable amount of small-group discussions. The PolyU and Maryland teams have been offering a joint subject annually since then, continuously developing and revising the content of SRL.



Figure 10-1.

PolyU students and Maryland students attend a Virtual Global Classroom from their respective home universities. (a) a three-way Global Classroom in action involving a PolyU class, a Maryland class, and a Cambodian class; see the three windows on the screen. (b) PolyU members of a joint group making a presentation in the Global Classroom of the joint project that their group has been working on throughout the semester.

Later, a new subject COMP3S02 was developed incorporating new leadership material. The content comprises four major modules.

The Global Leadership Module discusses: (1) Leadership as a Social Construct: What is leadership and how do you become a leader; (2) Intercultural Competencies: Intercultural models, particularly Bennett's Developmental Model of Intercultural Sensitivity¹ (DMIS) (Denial, Defence, Minimisation, Acceptance, Adaptation and Integration); (3) Leadership Styles and Cultures; and (4) Chimamanda Ngozi Adichie's Dangers of a Single Story. These are some of the most important areas

of preparation for cross-cultural Service-Learning, in fact, for any kind of cultural exchange. Time and again, we witness and hear about students from one country visiting another, expecting the other to live, talk, and behave just like themselves, and ending up disappointed or confused.

A second module discusses Leadership in Virtual Global Teams, and incorporates readings, discussions, and opportunities for practice. The PolyU and Maryland subject classes are organised into small groups for class discussions, activities, and projects, providing many opportunities for collaborative learning, and then for experimentation and practice. The kind of practice is very important; being aware of differences among individuals cognitively is one thing, being able to deal with the differences and work together effectively is something quite different.

The SRL module explores important issues such as: (1) Is leadership a process or a position? – The DePaul University Framework, the Maryland-developed skill set and practices, and the Social Change Model;² (2) The Cultural Connection: culture at your university, culture at your host country, and interacting with other cultures through the service project; and (3) SRL in business: corporate social responsibility, case studies, and trends. We have learned from experience that students do not learn social responsibility spontaneously through exposure alone; purposeful reading and discussions are necessary.

The Digital Divide Module covers the technology content of the subject: (1) What is the digital divide? (2) Divide of Access – to computers, connectivity, speeds, volume, and cost; (3) Divide of Content; (4) Usability and Accessibility; (5) Divide of Empowerment – information accessibility; and (6) Samples of interesting solutions. These form the basis for the students to start developing appropriate solutions to address real-world problems.

1 Bennett, M. (1986). A developmental approach to training intercultural sensitivity. in J. Martin (Guest Ed.), Special Issue on Intercultural Training, International Journal of Intercultural Relations.Vol 10, No.2. 179-186.

2 Astin, H. S., Astin, A. W., & Higher Education Research Institute (Los Angeles, Calif). (1996). A social change model of leadership development : guidebook : version III. Higher Education Research Institute, University of California, Los Angeles.

These modules form the core academic content of the subject. Then there are projects for practice. For PolyU students, the study continues with a Service-Learning project, in Hong Kong, Cambodia or Rwanda. Throughout the coronavirus pandemic, the projects had to be moved online for the most part.



Figure 10-2. The Virtual Global Classroom for Service-Learning at PolyU was developed before the COVID-19 pandemic. When the pandemic hit, the Global Classroom was in a good position to adapt to the constraints imposed. The technologies, skills and practices developed through running the Global Classroom, in turn, became very useful in moving the teaching and the practice of Service-Learning online.

Joint Service-Learning Projects in Rwanda and Cambodia – Digital Leadership

Leadership and Service-Learning education complement each other quite naturally. Our collaboration with the Maryland team covers both elements. In 2016, we followed up the joint teaching of leadership in Spring with a joint Service-Learning project in the summer in Rwanda. In 2017, the joint project took place in summer in Cambodia. The Service-Learning project was designed to challenge each student to practise and internalise what they had learned from the leadership modules. From another perspective, the leadership modules prepare the students to

tackle and learn from the Service-Learning projects more effectively. Together, the two elements prepare the students to be leaders in the digital world.

In summer 2016, two Maryland teachers arrived with three students to join the PolyU students in Rwanda. The Maryland team worked with one of the PolyU teams in setting up a community learning centre, with home-made computers, solar panels to provide electricity, and servers to host learning materials. The joint team then ran workshops to train local youths in the use of the computers. In the process, the joint team, with members from very diverse backgrounds, practised working together as a team, dealing with numerous cross-cultural issues. At one point, PolyU students felt pressured, even intimidated, by the Maryland students with their directness in expressing opinions and their earnestness in advocating for their ideas. Those instances provided exactly what may be considered “teachable moments” – when teachers can help students understand cultural differences and find appropriate ways for handling such situations. The students are most receptive at those moments when the need is most pressing. The learning is vivid when a solution can be applied and validated immediately with real consequences. Such lessons, when the students are emotionally invested, make a deep impact.



Figure 10-3.

Part of the joint University of Maryland – PolyU team in Rwanda, on a project involving installation of solar panels and running IT workshops. Students are in blue OSL T-shirts, and teachers in purple; the other team members are Rwandan NGO staff and youths. The distinctive clothing is useful for identification and communication with the local community when the team members are dispersed throughout the villages. Villagers know we are there to help and provide assistance enthusiastically.

PolyU students took the lead in the community learning centre project, particularly with the more technical aspects such as the assembly of the home-made computers, installation of the network, and setting up of solar panels. This was mainly because some of the PolyU students majored in computing but also due to the extensive training and preparations the PolyU team undertook prior to the trip to Rwanda. On the related project of studying the needs of the community and the impact of the projects, as their course was more concerned with cross-cultural leadership, the Maryland students took the lead. The two sets of teachers worked hard to ensure mutual understanding and respect between the teams. Overall, the two groups of students complemented each other well, and learned much through collaboratively overcoming the practical challenges they met.

In summer 2017, the two Maryland teachers took five students to join the PolyU students in Cambodia. This time the focus was on setting up a community learning centre out of a recycled 20-foot cargo container in the grounds of a primary school at a village in Kampong Speu province, roughly 70 kilometres outside Phnom Penh. The school has three very basic classrooms, is without running water and is off the electrical power grid. The students joined with local volunteers to paint attractive murals on the cargo container; made science-themed tables; installed a water collection system feeding into a 500-litre water tank; set up solar panels on the roof; wired up the inside with lights and fans; and even built a science-themed playground.



Figure 10-4.

In 2018, a University of Maryland team joined the PolyU team in Cambodia. Together, they expanded a community STEM learning centre built from used cargo containers (in the background). They also built a STEM-themed playground (foreground), with swings, see-saws, periscope, catapults, and other toys.

There is something about using our hands to make things that is deeply satisfying. However, we do need to take care that students are not just engaged in mundane labour; human beings need to create. While designing and making science-themed furniture, the students enjoyed exercising their creativity in making something that can help the local children appreciate science in a tangible, personal way. The provision of electricity through solar panels, of course, is particularly gratifying because the impact on the lives of the villagers, and the children in particular, is so vivid, immediate, and long-lasting.

Digital Leadership for a More Equitable World

The realities in the field in places such as rural Rwanda and Cambodia challenge us in so many ways. In a world that is so dependent on technology such as the internet, what do the people there need in order to survive, let alone succeed? Should computers be provided? How can computers operate where there is no electricity? Should internet access be provided? How? Wired networks? Wireless networks? SIM cards? Paid subscriptions? What software should be provided? Software applications widely used in developed countries can be prohibitively expensive. Open-source software can be inexpensive but has limited applicability. Who can provide the training? The support and maintenance? How can students from overseas, local students, village youths, and other community members work together to tackle these challenges? These are only the more immediate issues.

What about the electricity needed to access the digital world? Solar panels are an appropriate technology. But how? Small systems are less expensive but also less efficient. On the other hand, they are easier to learn and maintain. How should such a system be operated for sustainability? How can the technology be transferred to empower the community? Can electricity and IT be used to address other issues such as health and education?

Technology is generally developed for those who can afford the privilege to purchase and use it. It comes with functions and characteristics attuned to the needs of the privileged. To start with, the disadvantaged cannot afford the latest

technology and even when the disadvantaged do gain access, they often find that the technology does not address their needs, which may be quite different from those of the privileged. For example, popular hardware and software are often loaded with features that are seldom used, which makes the technology very expensive. The privileged can afford to pay extra for features that they do not use; the poor can ill afford to do so. Exposure to these realities through Service-Learning in the field challenges the students to learn to be leaders in the digital world. How should these technologies be developed and deployed for a more equitable world?

Digital Leadership is often taught and discussed in the context of the use of digital technology for business objectives. In the context of Service-Learning, we believe we should broaden the scope of digital leadership to include the society as a whole, particularly for the benefit of those who are disadvantaged. We are not aiming to offer a comprehensive programme on digital leadership; at least, not yet. What we want to do is to leverage upon the experience of Service-Learning to offer a direct, personal – indeed, even intimate – perspective on digital leadership. As opposed to a theoretical, academic perspective, students gain a perspective of unmet human needs, beyond the common business profit perspective. Through first-person experiences of the challenges, possibilities, actions, and the immediate and longer-term impacts of technology (particularly digital technology), we hope to provide students with a constructive venture into digital leadership for a more equitable world.

Collaboration with Electrical Engineering on Advancing Solar Panel Projects

Starting from 2015, installation of solar panels to generate electricity has become one of the key projects carried out by the joint COMP-OSL (Department of Computing – Office of Service-Learning) Teaching Team. Variations of the project have been carried out by different teams of students under the supervision of the Teaching Teams in Rwanda, Cambodia, and Myanmar. The Teaching Team has carried out many other projects, such as setting up community learning centres, STEM teaching, developing a STEM-themed playground, and teaching more

advanced IT such as virtual reality and augmented reality. The Team's discipline, IT, is broad and can be pressed into service but IT is founded on the availability of electricity, which enables so much else as well. The need for electricity is great in so many developing countries.

Gradually, the projects attracted the interest of the other engineering departments, particularly Electrical Engineering (EE). The EE team, led by Dr Alan Lau and Dr Edward Lo, started developing their own Service-Learning subject, with assistance from the COMP-OSL team. In summer 2018, while the development of their own subject was still on-going, they sent a team to Cambodia to work alongside the COMP-OSL team, as part of the COMP-OSL subject. This way they could gain first-hand experience in teaching a Service-Learning subject as well as test out their own ideas for projects. The two teams installed solar panels using different designs, at different sites in the same village, while the COMP-OSL team built charging stations for clusters of houses. Each house is provided with a battery, which is brought to the charging station at the centre of the cluster to be charged when needed. The EE-OSL team focused on clusters of houses which were very close to each other, so close that they can simply swing a cable from the charging station to the houses in the cluster, which meant the villagers did not have to take the battery to the charging station. In many aspects, the EE solution proved more professional and robust, while the COMP solution employed more common components which would be easier to learn to install and maintain.

Edward Lo, Associate Head and Associate Professor at the PolyU Department of Electrical Engineering (at the time of writing, now Adjunct Associate Professor at the Department of Electrical and Electronic Engineering), taught classes in Service-Learning in which students installed solar panels to generate electricity for villagers in Cambodia, and, remotely, in Rwanda during the coronavirus pandemic. Dr Lo's vast experience as a hands-on engineer allowed him to make significant contributions in leading the students to create innovative as well as practical solutions



in the challenging environments in rural Cambodia and remote, mountainous Rwanda.

By the following summer, although the EE team's subject proposal had already been approved, the EE and COMP teams continued to collaborate. In summer 2019, both teams returned to the same village in Cambodia. The EE team concentrated on repairing the installed systems and refining the design of the new solar panel systems, while the COMP team concentrated on further developing a community learning centre and a STEM-themed playground. The two teams shared the tasks of teaching students the cultural background of the community, communication with the NGO partner, as well as site preparation, material procurement, and local transportation.

The COMP and EE service projects overlap to some extent and this shared interest has resulted in fruitful collaboration. However, in some instances, such overlap between academic disciplines has led to conflict. In one unfortunate incident, an academic department, which we will refer to as Department X, proposed a new Service-Learning subject. The proposal was approved by the vetting committee, which then forwarded the proposal for endorsement to the University Senate – the final step before the subject can be offered to students. At this point, another department, Department Y, objected to the proposal on the grounds that the proposed subject belongs in their domain. Eventually Department X, which put forward the original proposal, was forced to withdraw its proposal. All the hard work in preparing an exciting subject was lost and the students were deprived of an opportunity to participate in a potentially very meaningful project, simply because of turf-fighting between academic departments. Subsequently Department Y proposed a subject that was superficially similar but fundamentally dissimilar, addressing very different issues with very different projects. This was particularly regrettable because it happened in Service-Learning, where the objective should be one of cooperation for mutual benefit. Sometimes the teachers themselves do not set a very good example for their students.

Fortunately, COMP and EE approached Service-Learning with a much more open and generous attitude. They realised that both departments have much to gain from collaboration and each gained a friend and a partner. There are more than enough opportunities for both, even if the services that they provide share some similarities. Indeed, the two teams have been happily collaborating, sharing experiences, contacts, expertise, laboratories, and more. This is the sort of leadership that is needed among the teachers, if only to set a good example for their students.

The two departments continue to collaborate, in other more innovative projects. Socially Responsible Leadership is generous and inclusive, not inward-looking and exclusive. That applies to the students and, even more so perhaps, the teachers and administrators.

One World Our World – Service-Learning International Summer School

Service-Learning is by nature boundary crossing, with the people we serve generally belonging to a community different from our own. Internationalisation comes naturally to Service-Learning where one of the boundaries being crossed is national. That national boundary can be crossed in many ways: we have taken students to serve in foreign countries; we have taught online classes attended by PolyU students jointly with students from a foreign university, where students are enrolled in subjects offered by their own university; we have organised many projects in which students from foreign universities work, without academic credit, alongside PolyU students; and we have sent students on exchange to foreign universities, occasionally without academic credit.

We have long sought to provide opportunities for students at other universities to participate in our Service-Learning programme as part of their own core academic studies. One way to enable that to happen is for these students to take our Service-Learning subjects for credit, which can then be used to satisfy the graduation requirement for their own studies. When academic credit is involved, however, the

situation gets more complicated. On the one hand, there are few channels for PolyU to grant academic credit to students from another university. Similarly, each university has strict rules for their students to transfer the credits earned at another university to satisfy the graduation requirements of their home university. One of the easiest ways for that to happen is for the two universities involved to become exchange partners and this is where we have focused our efforts.

We worked with our Academic Registrar and the International Affairs Office to develop an international summer school for Service-Learning, which we named One World Our World (OWOW). As the name suggests, the programme's overarching theme is respect for social diversity and inclusion, through participation in community engagement. Participating students enrol in one of two Service-Learning subjects: "Community Engagement through Expressive Textile Arts and Fashion" (ITC2S02) or "Technology beyond Borders: Service-Learning across Cultural, Ethnic and Community Lines" (COMP2S01S). They learn about the challenges faced by their target community and acquire the knowledge and skills to serve them through an innovative service project. In collaboration with their peers and community members, they actualise the project to create real impact. Through their service, students learn to develop empathy and a sense of social responsibility. Supplementing the service project are talks from world-renowned experts, open dialogue, interactive hands-on workshops, and local field visits, focusing on the themes of social diversity and inclusion.

In this age of "Make my country great!", a frantic arms race, cynical exploitation of other people's natural resources, a striving for racial, spiritual and cultural purity, and xenophobic nationalism, it is all the more important to cultivate respect for diversity and inclusion among the younger generation. However, respect, acceptance, and compassion does not happen simply by lumping young people from different countries together. If they are not well-prepared, if the environment is not conducive, the opposite can happen. When they sign up to work towards a meaningful goal in community engagement, however, the common goal unifies them, helping them transcend their differences. When they see how they can achieve great things by integrating their different strengths, they learn that respect for diversity is not just empty words. When they experience the joy of working

together for a greater cause, they learn that fraternity of humankind is more than just a dream. This is what international Service-Learning, when done well, can achieve.

We worked out the arrangements to associate our programme with PolyU's International Summer School for summer 2020. Foreign students from PolyU student exchange partners would have their subject registration fees waived. Unfortunately, the Coronavirus hit, social distancing was imposed and PolyU decided to cancel the School. We were busy adjusting our regular Service-Learning subjects, moving many service projects online so that the Service-Learning subjects would not need to be cancelled. We had no time or manpower to make the necessary changes to offer the Summer School in another form.

By 2021, social distancing had not yet been lifted but we had had time to prepare and move a large part of the programme online, while keeping some elements in person-to-person mode if possible. Because of the pandemic, the number of students from foreign universities participating was relatively small. We suspected that for students to participate in such a programme at a foreign university completely online would be something quite new and might not sound particularly attractive. However, the programme was popular with PolyU's own overseas students and so we still ended up with a good range of students coming from many different countries. We thank the subject teachers, Dr Jin Lam and Dr Peter Ng, for having the courage to welcome foreign students into their class and putting in the extra effort to make OWOW a reality.

COMP and ITC Subjects

We accepted, a total of 70 students in the summer 2021 OWOW programme. There were 48 students in the Computing Technology subject and 22 students in the Fashion Design subject. Among them, 38 students were from Hong Kong, five were from Mainland China while the remaining 27 were from over 18 countries, throughout East Asia, Southeast Asia, Central Asia, Europe, and North America. This was the first time we had students from foreign universities taking our Service-



Learning subjects for credit. We were hoping this would be just a beginning and we were determined to make it a success.

In the Computing Technology subject, students from many different countries worked together to serve handicapped children in special schools online. They used a variety of means, such as games, puzzles, artificial intelligence applications, and daily-life encounters to engage the children. In this case, the technology is a tool, a catalyst to stimulate and enhance interaction. The key is communication, the person-to-person contact between our students and the children, but the technology must be engaging and truly inspiring. We included an element of augmented reality and artificial intelligence into the subject, one in the form of an application trained to recognise pictures of specific objects, such as distinguishing between cats and dogs, or to pick out a given flavour in a box of lollipops. This is an example of artificial intelligence – “pattern recognition” in computer science jargon – and the underlying technology is not something that can be learned in a matter of hours or days. However, tools are available these days, that allow us to train a program to recognise cats and dogs by showing the program many training cat and dog pictures and, once trained, the program can recognise a picture of a cat or dog, even a picture that it has not seen before. This way, even children can begin to appreciate what artificial intelligence can do without having to learn complicated core algorithms. Everyone involved found it fascinating. This is an example of what one can do with technology in Service-Learning, with a bit of imagination and hard work.

It is very challenging but also fulfilling when the students find that their hard work makes an impact on children who are facing very severe challenges. The children we were serving could hardly communicate verbally and it was often hard to figure out how much they understand. Our students were challenged to be creative in communicating with sounds, gestures, body language, and technology; it was hard but when it worked, highly satisfying and confidence-building.

In the Fashion Design subject, the class managed to meet face-to-face, with some service conducted in small groups in their workshops and other spaces on campus whenever it was possible for students to attend in person. Our students’

clients were high-functioning young people on the autism spectrum, able to function reasonably effectively in the real world, studying and working, among other people. However, they face special challenges because of their special needs, which may be difficult to understand without interacting closely with them. Our students were privileged to have the chance to get to know them well, through working together with them for a long time, in different settings, but this also posed another kind of challenge – that of learning to collaborate, closely, with people whose minds may work differently. The focus of this class is the design of clothing, wearables. The clients and our students worked together in small groups in classrooms as well as in well-equipped, specially-designed workshops. The subject, the projects, and the whole process had been carefully designed by the teacher to facilitate their work and interaction and enabling our clients to use their minds and hands to communicate through their designs and the impact of those designs. The service culminated in a photo shoot when the clients modelled the designs they had co-created with the students. (In past years, we would have had a fashion show and a catwalk in a public space, and it would have been a fun, festive occasion. Unfortunately, a large public gathering was not possible because of the pandemic.)

These two subjects have been chosen to illustrate two unique approaches to Service-Learning. The results were very positive, as evidenced by the reaction of students, teachers, and others involved. The international summer school on Service-Learning had a successful beginning. Students’ work was later showcased in the virtual world created for the Symposium and Expo on July 9-10, 2021, and attracted much interest.

10.4 Leadership of the Teacher

Whenever Service-Learning is discussed, attention is generally focused on the student, as is natural since Service-Learning is fundamentally a pedagogy for the purpose of educating the student. We naturally ask questions such as: What services are the students providing? What impact are they making on the community? What



are the students learning? How should the students be prepared? Should Service-Learning be compulsory or voluntary? What are the critical success factors?

However, serious attention is also due to the teacher, who is arguably the most critical factor to the success of Service-Learning. Obviously, Service-Learning cannot happen, let alone succeed, without the teacher effectively planning, teaching, and organising the service. There are also several issues that are generally not sufficiently recognised regarding the teachers of Service-Learning.

- Teachers must be trained before they can effectively teach Service-Learning. Teachers are generally hired to teach subjects in the academic discipline for which they are trained, for example, engineering, language, health science, or business. However, for an engineering academic to teach a subject applying engineering skills in Service-Learning, additional training and/or preparation in the pedagogy is required, covering, at the very least, the concept of Service-Learning, supervision of field work, and teaching and assessment of reflection, in addition to an introduction to the social issues to be addressed through the service.
- Students come and go. They participate in the Service-Learning project for a semester, perhaps a year or two, and they move on. A few may stay behind to assist the teacher, act as student leaders, or develop their own related projects but they all graduate in no more than a few years' time. It is the teacher who stays and provides the continuity and sustainability of the Service-Learning subject. They are the custodian of the subject – understanding the issues and the community, relevant technologies and practices, the relationship with the community and partners, and so on. Such intangibles are most critical to the success of the subject.
- A passionate teacher in Service-Learning makes a great difference. Service-Learning is much more about nurturing a compassionate and responsible attitude rather than the imparting of knowledge. A passionate teacher sets an example which goes a long way towards inspiring the desired response to the teaching. A teacher who teaches Service-Learning without passion is unlikely to inspire passion in others.

We readily acknowledge that we have not always given sufficient attention to the teacher. We do not quite understand why and how teachers are motivated to teach Service-Learning. What are their intrinsic and extrinsic motivations? What are some of the critical success factors on the teachers' side which correlate with good teaching in Service-Learning? What does that tell us about selecting and preparing teachers for Service-Learning?

We can draw some lessons from research on teaching in general, that are probably applicable to teachers in Service-Learning and we have hunches from the experience of our own as well as that of others. However, rigorous research in this aspect is thin on the ground, and we ourselves are only getting started in understanding the teachers. There is some reporting in the literature on how other universities recognise and reward good Service-Learning teaching. Again, principles and practices on teaching in general apply but it would seem that Service-Learning, because of its experiential nature and other specific characteristics, merits some adaptation of these. We are just beginning to learn what changes might need to be made. Much work remains ahead.

Case Study: Leadership in the Face of the Coronavirus Pandemic

When a programme is operating uneventfully, issues of leadership may not draw much attention. Leadership issues become most obvious in times of serious challenge. When the coronavirus hit in early 2020, it offered a valuable opportunity to observe leadership – and the consequences of its lack – in action. In Spring 2020, we were in panic mode when the pandemic imposed social distancing, which, in turn caused the cancellation of many teaching activities. Face-to-face classes were suspended. International travel became impossible and even local projects became very difficult, if not totally impossible, to run.

At that point, many Service-Learning teachers simply decided to cancel their classes, without even trying to find alternative ways to carry on; some department

heads made the decision to cancel classes for the teachers. There were also some teachers who had not yet had the opportunity to develop a strong relationship with community partners and thus found it difficult to make alternate plans. Colleagues at OSL, by then renamed SLLO (Service-Learning and Leadership Office), worked very hard to help those teachers who tried to save their subjects to make alternative plans, teach online, find new partners and new projects, and move their projects online. We succeeded in saving many of those subjects. That was important as Service-Learning is a requirement for graduation and many students were depending on taking their desired subjects to progress in their studies as planned, and subsequently graduate. Cancelling a Service-Learning subject affects not only the teacher but also the students. In addition, there is the knock-on effect: when a subject is cancelled, the students originally registered in the subject will likely begin looking for a replacement subject but alternatives may not be available. Even if alternative subjects are found, limited in number they may then be overwhelmed in terms of student numbers.

Some teachers worked hard with their partners to seek ways to conduct the service in very small groups or moved the projects online altogether. Some had to change the service projects drastically, such as from direct to indirect service. Many succeeded. These were generally the subjects whose teachers had considerable experience and had built up strong relationships with committed, long-term partners. Some developed innovative ways to conduct their services online, even inventing new services, designing new teaching aids and kits for projects. Some were even able to conduct services with overseas partners and communities, expanding their reach in the face of the challenge. Moving online was able to help overcome physical distance, connecting us with overseas communities without the need for travel. Challenges can also become the motivation to be creative.

Some teachers are accustomed to spending much of their summer taking students on international Service-Learning projects, in Cambodia, Vietnam, Rwanda, or elsewhere, and many months prior to preparing for those trips. When the pandemic hit, although travel was cancelled, since projects switched to online mode, the teachers remained busy. Yet the cancellation of the travel left them with a substantial amount of time and mind-space. Some used that opportunity to analyse

data collected over the years, which they had not been able to examine fully because they had been so busy. That generated a burst of research energy, which resulted in the publication of quite a few high-quality papers. Many academic conferences were cancelled or postponed because of the pandemic, prompting some of our colleagues to skip the conference stage and instead submit their full papers directly to journals. Some traditional in-person conferences morphed into online virtual conferences or leveraged other innovative formats.

Among our students we observed at least two types of behaviour in response to the restrictions imposed by the pandemic. Many complained about issues such as the cancelling of in-person classes, the low bandwidth of the internet in online classes, the poor quality of the audio and video, the lack of person-to-person interaction, the forced change of plans, and the uncertainty. On the other hand, some were determined to make the best of the difficult situation to learn new things, to try new ways to interact with fellow students and the community, and to learn new technology. In short, there are those who feel helpless in the face of adverse conditions and those who try to find ways to overcome the adversity; the difference is resilience. We see the same among teachers; some are resigned to the idea that the restrictions cannot be overcome, while others persist in seeking for solutions. Therein lies leadership.

Cultivating Leadership in Teachers

Teaching leadership is hard. It cannot be defined quantitatively; it cannot even be defined qualitatively. It is reasonably easy to recognise poor leadership but considerably harder to recognise what makes for good leadership. One of the reasons is that the impact of good leadership may only manifest itself after a lengthy period of time. There are many different models and theories of leadership. Leadership also manifests itself in different forms in different contexts.

If teaching students about leadership is hard, it is arguably harder to cultivate leadership among teachers. For this discussion, the term “teachers” includes all those involved in the teaching of Service-Learning: teaching assistants, project

assistants, community partners, and even the administrators whose jobs are necessary to the operation of the programme, such as the undergraduate secretaries, the academic advising officers, or the colleagues responsible for purchasing and requisition. Students are generally young, eager to learn and experience new things, and their character is still developing. Teachers, on the other hand, are generally adults, perhaps satisfied that they have learned enough, whose characters are probably well set. They are also probably more sensitive to any perceptions of being manipulated.

While teachers have a significant amount of control over the content and the learning environment of the students, the environment under which the teacher operates is much harder to change, even if we know what changes are needed to cultivate leadership for Service-Learning. Here at OSL/SLLO we strive to provide an open, honest, and supportive environment for our teachers. We try to offer as much assistance as possible and are eager to hear about their needs and desires. We aim to be honest in communicating with them what is and what is not within our control; for needs that are beyond our control we make the best effort to communicate the need to those who are in control. The following are several measures we have taken over the years.

- An environment must be created within which teachers can be trained, or otherwise prepared, to teach Service-Learning effectively. Alternatively, they should be given the opportunity, the time, and other resources needed to receiving training, if not from us, then from elsewhere. At PolyU, we endeavour to provide aspiring teachers with workshops, teacher development subjects, and the equivalent of “internship” opportunities with established Service-Learning courses. The University also provides a significant amount of funding for piloting projects and for innovative means of teacher preparation.
- A Service-Learning subject proposal, the subject teacher, and the intended community partner is approved as “a package”. This is to ensure that the teacher has an appropriate teaching background and is well-prepared and that there is a good prospect of a strong community partner. The project, the community, and the partner may change, in time as appropriate but we do our best to ensure that a subject has a good start. PolyU also insists that any new

teacher be approved by the vetting committee, in recognition of the importance of the subject teacher.

- A community of practice for Service-Learning teachers was formed from very early on at PolyU to provide support for the teachers, who are scattered across many academic departments. There are many opportunities for the community to work together on workshops, conferences, teaching development projects, and research. With the inclusion of socially responsible global citizenship in the Mission Statement in the University’s Strategic Plan, the contribution of the teachers of Service-Learning is formally recognised. However, in a research university, there is always tension between recognition of good teaching and performance in research, and many continue to perceive it as an uphill battle. We continue to do what we can to conduct research into the role of the teacher in Service-Learning, promote innovative scholarship of Service-Learning, and encourage due recognition of the teacher’s contribution.

We have worked hard to train new teachers, help them to secure funding, and we collaborate with teachers to find new opportunities, new partners, new communities, and new issues to address. Over the years, we have seen novice teachers become experienced teachers; small teams grow into bigger teams; and teachers expand their teaching into new areas, using new methods. We have seen teachers winning awards for their Service-Learning teaching, while some help to train other teachers. We have witnessed teachers become active researchers on Service-Learning. One issue which is generally out of our control however is due recognition of their contributions and achievements towards their career development; this is not for the lack of trying.

Teachers Then and Now

We need teachers to make Service-Learning work. Around 2010, when PolyU started on this journey, we had hardly any teachers with experience or training to teach Service-Learning. To assess our readiness to meet the challenge that we faced in getting ourselves ready to teach, we conducted a study, interviewing a number of potential teachers.

We found that many were worried...

- Some wondered about the demand for service (or rather, the possible lack of it): are there enough needy people in Hong Kong for our students to serve?
- Some worried about the readiness of our students, especially since PolyU is a strongly technology-oriented university: are students without a humanities or social science background suitable to take Service-Learning subjects?
- Some worried whether we would have the teachers needed: can teachers without a humanities or social science background teach Service-Learning courses? Reflection is said to be critical: do teachers from sciences and engineering know how to guide students to do reflection?
- Some worried about assessment – is assessment of Service-Learning not subjective and unreliable?

Those were not unreasonable worries, given how little we knew about Service-Learning at the time. Fortunately, we did not let that stop us. We arranged workshops on various aspects of Service-Learning, developed e-learning materials to train teachers, embarked on subject piloting to gain experience, developed guidelines for proposal writing, visited well-established programmes at leading universities, developed teacher training courses, arranged internship experiences for teachers, organised research salons, organised conferences, published papers and books, and experimented with innovative projects and subjects.

Over the past ten years, we have witnessed tremendous growth and development. Some teachers have expressed gratitude for the opportunity to teach Service-Learning subjects as part of their duty. Previously they had to find the time outside of work to serve the community in their own way, which is a challenge given the heavy workload in the University. Now, they can serve the community and train students to do the same, as part of their duty – killing multiple birds with one stone.

Many questions have been answered, not just in theory, but through hard-earned experience.

- Yes, there is no shortage of people to be served.
- Yes, students in science and engineering can learn to serve.
- Yes, engineering professors can learn to guide reflection.
- Yes, Service-Learning can be assessed objectively.

Though previously novices in teaching Service-Learning, we have since become experienced. Several pedagogical models have also evolved. One teacher, Anna Ho, of the English Language Centre, has assembled a multi-teacher team to teach multiple subjects and sends out multiple teams to serve in Hong Kong, Mainland China, Taiwan, Cambodia, and even further afield in the same year. Another teacher, Dr Hin-Chung Lau, of Biomedical Engineering, teaches hundreds of students at a time, assisted by several teaching assistants. Their teaching team sends out dozens of student teams to serve multiple primary and secondary schools at the same time. At the end of each semester of teaching and serving, participating schools send their own students to compete in a large-scale (several hundred students) territory-wide STEM competition.

Experienced teachers offer teacher development workshops, consultation sessions, even full teacher development courses, to aspiring teachers, not just from PolyU, not just from Hong Kong, but also those from Mainland China and countries overseas. Teachers are engaged in research on Service-Learning pedagogies, the impact of Service-Learning on their own discipline, and new technologies developed in the context of serving the community. The results are published in conferences, journals and contribute to consultancies. Teachers have received prestigious awards for their achievements.

Even when the coronavirus hit, many of our teachers were ready. We were able to switch to teaching online; it took a tremendous effort but we managed to move much of the service online. We even created innovative services in the process, opening up some great opportunities. Now, we are practising technology-enhanced and technology-driven Service-Learning. Tangible artefacts are integrated into online service. We are effectively practising engineering online. In this sense, the pandemic hit us at the right time, when many of us were ready. Had the pandemic

hit 10 years earlier, we would not have been able to cope with the obstacles thrown in our way.

10.5 Teachers' Perceptions of Reflection

What the Data Say

Everyone agrees that reflection is critical in Service-Learning. For many teachers, however, it is also one of the most difficult topics to teach. One of the reasons is that the concept of reflection is not well understood, despite its importance and continued attention. To understand better the role of reflection in Service-Learning and its impact, we developed a project to better understand how teachers perceive the notion of reflection in the first place.

The teachers who participated in this study were faculty members who taught Service-Learning at the University between 2012 and 2017. Academic departments at the University were classified according to Biglan's classification of academic disciplines.³ Faculty members who had taught a Service-Learning subject at least twice were invited for interview. We aimed to interview 12 teachers from the "hard" disciplines and another 12 from the "soft" disciplines. We also aimed at an even split between more experienced (more than three years of experience in Service-Learning) and less experienced teachers.

Teachers were asked specifically what they understood by the term "reflection" and its importance in Service-Learning. Based on analysis of the interviews, we identified four major characterisations of reflection from the teachers. The first two relate to the function or purpose of reflection, either leaning towards being an assessment tool for the teachers, or a learning process primarily for the benefit of

the student. The other two relate to the substance of the activity, as in, whether the content was focused on a task-oriented programme review, or a person-oriented critical cognition of personal values, stereotypes, and beliefs.

Using the functional and content dimensions as axes, we constructed a framework to categorise the teachers' perceptions of reflection. Moving along the x-axis progresses from a primarily practical focus on the task or the project to a potentially more transformative exercise that allows students to gain deeper personal meaning from their experience. Moving along the y-axis represents a similar continuum from seeing the reflection activity in a very instrumental light to treating reflection as a student-focused pedagogy for learning.

We were able to find a location for each subject in the framework that feels about right. We also found that most of the subjects can be placed neatly into one of the four quadrants. These are represented by dots in the diagram. There are quite a few subjects that seem to belong to two quadrants. Fortunately, in all such cases, the two quadrants are neighbours of each other, and we can represent such cross-quadrant subjects as lines linking up the two quadrants. There is no subject that belongs to two quadrants that do not share a common border – this is an indication that the framework is perhaps appropriate for a useful categorisation.

The Four Conceptual Domains of Reflection

Single quadrant subjects are concentrated in quadrants Q1 and Q3. Teachers of Q1 subjects characterise reflection as intentional, active thinking processes, such as self-examining, finding meaning, or digging deep into impressions and feelings. The statements indicate a conception of reflection as an activity that primarily takes place in the learner and are thus student-referent. Q1 subjects treated emotions as a springboard for deeper learning, much in line with dissonance theory.

In contrast, teachers of Q3 subjects expressed more instrumental views about reflection. Compared to teachers of Q1 subjects, the statements made about reflection are more practical – if not pragmatic or negative. The purpose of

³ Biglan, A. (1973). Relationships between subject matter characteristics and the structure and output of university departments. *Journal of Applied Psychology*, 57(3), 204–213.

reflection, in these cases, is closely bound to academic tasks such as supervising a course, grading, and research output.

The concentration of subjects in Q1 and Q3 suggests a positive correlation between function and content. Teachers who perceive the function of reflection as being student-referent are more likely to focus the reflective activity with a critical or transformative lens. Likewise, subjects who perceive a teacher-referent function of reflection prefer more task-oriented foci for the content of their reflective activities.

There are also a considerable number of cross-quadrant subjects. Teachers of subjects crossing Q1 and Q2 regard reflection as beneficial for students. Their description of student reflection centre around service performance and emphasised individual personal or professional outcomes. Meanwhile, teachers of subjects crossing Q3 and Q4 describe reflection in markedly teacher-referent manner, whether as a means to evaluate the service performance or programme, or to gauge level of student learning. Accordingly, reflection is a way to assess students.

The conspicuous void in Q4 suggests that the combination of reflection (a) as primarily an assessment tool and yet also (b) for critical cognition is unlikely. That sounds reasonable.

From the data collected and their distribution throughout the framework, four conceptual domains of reflection can be established, based on whether the teachers view reflection as a process, strategy, or tool primarily for (Q1) transformative learning, (Q2) mindful practice, (Q3) evaluation exercise, and (Q4) articulated thinking.

- Q1-Transformative learning brings together perceptions of reflection that emphasise its being a learning process undertaken by the student which can reach high levels of criticality with promising consequences for self and society. Such conception is consonant with what scholars of experiential pedagogy describe as transformative, critical, or emancipatory education.
- Q2-Mindful practice is likewise a student-referent idea of reflection that is

centred more on professional or academic outcomes which are honed through service work, such as being able to link or apply classroom knowledge and developing skills and attitudes that enhance competence.

- Q3-Evaluation exercise is a more instrumental approach to reflection that stresses its function as a tool for assessment or appraisal and is largely confined to being a programme review. Review and assessment of student work are necessary in academic Service-Learning. However, we would naturally hope for educators to go beyond immediate or practical concerns and facilitate students to move towards more far-reaching learning objectives.
- Q4-The last domain, articulated thinking, primarily treats reflection as an instrument for measuring how much or how far students draw from their experience of service. We did not have solid samples for this domain although some cross-domain subjects do come close. They tend to characterise reflection chiefly as a written task for students to demonstrate what they learned. They did not perceive reflective writing itself as a learning exercise, nor did they distinguish between levels or quality of reflection. In general, they were mistrustful or apprehensive about learning that was self-reported by students.⁴

10.6 The Role of the Teacher in Service-Learning

It is often said that in service-learning, teachers should move from being “the sage on the stage” to “the guide on the side”. Through the past ten years, we have observed how the role of the teacher, even in an experiential pedagogy such as Service-Learning (or perhaps, especially in service-learning), is critical to Service-Learning. Students do not automatically learn from Service-Learning, even in

⁴ The details of this research have been published in a paper “Knowing where We Stand: Mapping Teachers’ Conception of Reflection in Service-Learning”, by Rina Camus, Grace Ngai, K P Kwan, Jessie Yau and Stephen Chan, in *Innovative Higher Education*, published online January 23, 2021.

the highly challenging, highly immersive international service-learning projects. Service-learning does not negate the role of the teacher.

Our observations are also that teachers, coming from their own experiences and backgrounds, have different conceptions of Service-Learning, or of the components in Service-Learning. Our investigation into teachers' models of reflection is an example. The richness, or the potential, of Service-Learning, is that this pedagogy is wide enough, and flexible enough, to encompass these diversities to creating the socially responsible citizens of tomorrow.

Ten years ago, we could not dare imagine that we would go this far. It turns out that Service-Learning is not the end that we are aiming at. It is a pedagogy that is not only effective for teaching, but also for the professional development of us teachers. The ultimate aim is better education. Service-Learning is now definitely part of our campus culture. †

Chapter 11

TxSL-Technology-Driven/Facilitated Service-Learning

PolyU, as a former polytechnic institute, has a unique heritage and strengths in science, engineering, and a number of specific professional disciplines, including fashion and textiles, hotel and tourism, and optometry. This heritage is evidenced in many of the distinctive Service-Learning subjects and projects offered. These include installation of solar panels to address energy poverty, many varieties of innovative STEM-related services, virtual/augmented reality for communication, game-based services for rehabilitation, eye examinations as a public health service, fashion design as therapy, and local tourism for development. Each subject makes a strong and lasting impact in the community while also providing exciting opportunities for our students to practise what they learn through engaging with those in need.

This technology orientation also puts us in a good position when dealing with two of the greatest challenges we have faced to our university life – and to Service-Learning, of course – starting with the occupation of our campus in November 2019 during the local social unrest, followed immediately by the social distancing and travel restrictions imposed by the coronavirus pandemic which lasted almost three years, until Fall 2022.

While many universities suspended or drastically scaled down their Service-Learning programmes, we persevered and adapted, moving teaching as well as service online. In a way we had little choice since Service-Learning is compulsory for all undergraduates. If we had scaled back our provision of subjects, many students might not have been able to progress in their studies as planned and some may not have been able to graduate on time. We could have made allowances and “bent the rules” but we felt that this would have been highly undesirable. The pandemic was debilitating but it also challenged us to be creative. It turns out that online Service-Learning, while having its limitations, can still be effective while

also offering certain advantages in some respects. One of the key elements at play is the use of technology, with which we may have been able to develop a competitive advantage.

In the following sections we shall tell the story of some of the specific actions taken to leverage our strong technology heritage in tackling these challenges. In general, the actions can be grouped into one of two major types based on the role that technology plays. On the one hand, technology, particularly communication technology, facilitates the teaching and rendering of services; these we can refer to as TfSL (Technology-facilitated Service-Learning). On the other hand, technology provides the core content/solutions in addressing the specific social needs targeted; these we can refer to as TdSL (Technology-driven Service-Learning). Both come under the umbrella term TxSL.

11.1 Social Unrest and Occupation of the PolyU Campus

In the morning of Monday, November 11, 2019, some people protesting against a law proposed by the Government entered our campus and started to cause serious disruption to the operation of the University. Classes were suspended, including, of course, Service-Learning.

The PolyU campus is situated at a strategic location in the heart of the Kowloon peninsula, in the middle of the territory of the Hong Kong Special Administrative Region (SAR) of the People's Republic of China (PRC). To the east of the campus is Hong Chong Road, a main road leading to and from the north entrance to the Hung Hom Cross Harbour Tunnel, the major road transport artery between Kowloon peninsula and Hong Kong Island. To the north and west is Chatham Road, a main road linking the eastern and western parts of Kowloon. The protesters wanted to block the traffic on these main roads, to put pressure on the Government and were using our campus as a base. Desks, chairs, cabinets, and other heavy furniture taken

from classrooms, offices, and the library were dumped from footbridges onto the roads and pavements below, to form barricades to block the traffic. When the police moved in, the protesters retreated into our campus, effectively occupying it. Our campus did not appear to be the target but we became victims of the confrontation, losing access to our campus, which sustained severe damage in places. The events leading to the protests and the confrontations between the protesters and the police/Government are not within the scope of this book. We will only describe how Service-Learning was affected and how we responded.

Starting from November 11, the campus was effectively occupied by the protesters. Classes were called off immediately due to the chaotic, unstable, and dangerous situation that developed. During the following week, there was a virtual stand-off, with the protesters holed up inside and the police laying a siege and surrounding the campus. We could still come and go through the north and south entrances; some of us went to the office every day, not to work, but just to check on the office itself. Many researchers and professors continued with their research. At that point, many of the offices, including OSL, were not disturbed but the atmosphere became increasingly tense. Most colleagues were working from home, trying to keep things operational as far as possible.

The confrontation flared up violently on Sunday, November 17 and the campus, which sustained severe damage, became sealed off completely. By the end of November, the protesters were gone from our campus but it took a long time to clean up sufficiently for at least some staff to return safely. By the end of December, some of us were allowed to return to safer parts of the campus. Although some parts of the campus were damaged severely, the OSL office escaped serious damage; some doors were broken but nothing seemed to have been taken.

By the time classes on campus were suspended in early November, more than half of the semester had been completed. Although the teaching was more than half completed, some Service-Learning projects had just started but it was clearly very difficult to continue with the teaching and the service as planned. The problem was that more than just the fact that the campus was shut down; the whole of Hong Kong was very tense, with confrontations across many districts. Many Service-

Learning partner organisations were reluctant to continue with the service projects originally agreed upon. While teaching could move online, many of the service projects required face-to-face interactions, in pre-arranged settings and there was little time to make alternative arrangements. Some Service-Learning subjects had to be cut short. Some teachers tried their best to complete the teaching online and carry out the projects as best they could, but some of the service projects were cut short. Some teachers arranged for their students to do desk research in lieu of the service projects originally planned. These arrangements were not ideal but had to be approved in view of the unexpected emergency. At that time, we hoped the situation would quickly return to normal.

By the end of December, we were breathing a collective sigh of relief, thinking that the worst was over. We were hoping that we would be able to resume close-to-normal operations when the Spring semester started in mid-January 2020. Little did we know that the coronavirus had already struck its first blow and that a worldwide pandemic would pose a much more serious, almost existential challenge to Service-Learning.

11.2 The Coronavirus Pandemic

Impact on the Global Youth Leadership Programme 2019-2020

In early January 2020, news about a mysterious but deadly infectious disease in the central city of Wuhan in Mainland China started to appear. By mid-January, the coronavirus infection had rapidly become a serious problem in Mainland China, as well as in several other countries. This development threatened one of our major projects immediately. A joint project involving students from PolyU, Peking University, and Xi'an Jiaotong University (both in Mainland China) was scheduled to take place in Cambodia during the Lunar New Year holidays in February 2020. This trip was the result of a difficult process of coordinating the schedule of the students from the three separate

universities. The students were expecting to have to sacrifice their Lunar New Year vacations in order to make this project possible. However, on January 23rd both the Peking University and Xi'an Jiaotong University teams decided to pull out of the trip due to concerns about the fast-spreading disease.

We called an emergency meeting of the PolyU team, which had to be conducted online since many of the students had left Hong Kong to return to their home countries when the campus was shut down because of the social unrest, and had not yet returned. The Teaching Team contacted each of the students individually before the meeting, explained the situation as far as we understood it, and discussed with them the options available, including postponement and cancellation of the trip to Cambodia, a trip for which the students had been preparing for quite some while. At that time neither Hong Kong nor Cambodia were yet affected by the virus, although Mainland China had been hit hard. Despite there being little confirmed information about the virus available, what was clear was that it was spreading quickly and it seemed certain that the situation would worsen in the short time before we were scheduled to travel. It was an agonising decision but it seemed obvious that it was prudent to cancel the trip. All students agreed with the decision, even though it was very disappointing for all involved.

What happened as a result of the coronavirus was unique, and especially serious but having a Service-Learning project threatened by some risk factor is nothing new. Every Service-Learning subject must conduct its own risk analysis and complete a risk management report, listing every major risk factor (health related, physical injury, political stability, or otherwise), degree of seriousness, and plans for handling different emergencies. When unexpected, threatening situations develop (for example, an impending typhoon, serious illness or injury, or political unrest), the situation is evaluated and appropriate action is taken at the corresponding level (subject, department, or university-wide). In any case, the safety and well-being of the students, staff, and community must take top priority. In this case – the decision taken in mid-January 2020 on the Cambodia trip on the basis of health and safety concerns – was decisive.

The three teams of students had been participating in a year-long youth leadership programme which had kicked off with all three teams participating in a student leadership summit in Beijing in Summer 2019. In Fall 2019, each team carried out a study on gentrification in their own city – Hong Kong, Beijing, and Xi'an. In February, the three teams were supposed to work on a Service-Learning project together in villages and slums in Cambodia. In Spring 2021, the three teams were to train and prepare for the installation of solar panels in Tanzania in Summer 2021.

Handling Adversity

In early January 2020, we were forced to cancel the Cambodia part of the tri-university programme because of the impending spread of coronavirus. At the time, the students had not yet returned to campus with many at home over the Christmas and New Year term break. The Teaching Team made sure that all students were aware of the situation and were involved in the decision on the trip. In the end, all the students agreed to cancel the trip to Cambodia because of health and safety concerns.

The students were naturally deeply disappointed, having made sacrifices and worked so hard to prepare. While they were temporarily consoled by the expectation that they could still engage in Tanzania in the coming summer, later in the Spring, it unsurprisingly became obvious that the Tanzania trip would also be impossible, due to the continuing and escalating threat of the pandemic. Even though this further development was not unexpected, the disappointment was still extremely bitter, with some students becoming quite dejected and dropping out from the programme altogether. Others stayed but became dispirited and found it hard to engage with the programme. As teachers, we tried hard to guide the students in analysing the situation, evaluating alternatives, and encouraging them to take constructive routes out of this difficult situation. Some students were, in the end, able to manage their disappointment and switch their focus onto making the most of the challenge, to find alternative ways to serve and ended up quite satisfied with the experience and outcome. How one handles the disappointment is very revealing, saying much about one's character and resilience.

For many, this type of adversity is particularly difficult to deal with. It is not something of their own making – not through laziness, inattention, or personal mistake – so they feel victimised. However, there is no obvious culprit; it is also not something created by some identifiable person or institution, or as a result of a government policy or university directive. Hence there is no easy target at which they can direct their unhappiness (or even anger). Cognitively, they are intelligent enough to understand it is not anyone's fault, at least not in an explicit, obvious way, but emotionally they are not mature enough to take it in their stride, releasing their frustration by venting their displeasure at some convenient target. The Teaching Team recognised the challenge and tried to help the students deal with the disappointment – speaking with them, explaining the situation, and suggesting ways of coping with the situation. It was very disappointing that some students did eventually find a way to assign blame on their teachers. One student hung on until the summer, hoping against hope that the trip to Tanzania might not need to be cancelled. His parting shot when he finally withdrew from the programme was that he felt the trip to Cambodia could have gone ahead, implicitly blaming the Teaching Team for the cancellation, even though he had participated in the discussion, had full knowledge of the facts known at the time, and had then agreed with the decision, and by that time the seriousness of that mysterious disease had been clear to all.

The students were not left to deal with the adversity and subsequent process of self-discovery by themselves. The Teaching Team monitored the situation and discussed the available options with the students whenever a decision had to be made, with the whole team needing to come to a collective decision. The students were guided and encouraged to discuss their feelings, worries, and reactions to significant changes in the situation and major decisions in regard to the project. We also discussed with the students approaches people commonly adopt to deal with adversity (allowing their behaviour to be dictated by the external circumstances versus deciding for themselves how they will behave), as well as what their actions reveal of their own character. Reacting positively in the face of adversity is hard but is extremely valuable in developing self-control and self-esteem rationally.

Sanjay Sarma, head of Open Learning at the Massachusetts Institute of Technology, observed in his book *Grasp – The Science Transforming How We Learn* that there are two parts to education: “outward-facing”, which focuses on how knowledge relates to and can be applied to the world; and “inward-looking”, whereby the focus is on the internalisation of knowledge, empowering the learner to use it to affect the world¹.

We aim to cultivate both the outward-looking and inward-looking parts of education. Helping students understand how they can handle adversity is an important step towards self-understanding and building up of rational self-esteem. Sometimes we succeed, sometimes we do not. We are still learning how to succeed more often.

Impact on Service-Learning Subjects at a Glance

By early 2020, it was becoming increasingly clear that all Service-Learning subjects/projects would be severely affected by the coronavirus pandemic. Practically all our projects involve direct personal interactions between our students and members of the community; clearly such personal contacts became impossible under the social distancing measures imposed. Those groups considered particularly vulnerable health-wise (such as those in nursing homes or special schools) refused visitors. Then, primary and secondary schools also started to shut down or at least refuse visitors. Travelling away from Hong Kong for international Service-Learning was out of the question. Furthermore, there was no way to predict when the situation would ease.

This created a crisis much more acute than the one caused by the social unrest and resulting shutdown of PolyU in November 2019. Many subject teachers and their host departments were considering cancelling their Service-

Learning subjects for both the Spring and Summer terms. If many subjects were to be cancelled, it would create a huge problem. We generally try to maintain a delicate balance between the number of places on Service-Learning subjects and the number of students expected to take a subject each term. If too few places are offered, some students will not be able to take their desired subject, or indeed possibly any Service-Learning subject at all. On the other hand, if too many subject/places are offered, many of these places might not be filled, some subjects may be cancelled because of under-enrolment, and commitments made to partner communities might not be honoured. To maintain a healthy balance, we generally try to offer a total number of student places which is 10% above the expected demand each year.

Cancelling too many Service-Learning subjects would lead to a shortfall of places. The ones who would have suffered the most would have been students in their final year who had not yet completed their Service-Learning graduation requirement, whose graduation might have to be delayed. Even for students not in their final year, not being able to take a Service-Learning subject as planned may cause serious disruptions to their study plans. To address this problem, in early 2020, SLLO worked very hard with the subject teachers to develop alternative service projects so that subjects could continue to be offered. In the end, only two subjects had to be cancelled in the Spring Semester of 2020.

Service-Learning subject teachers had to scramble to make alternative arrangements when their original planned service projects could not be carried out and one obvious option was to try to move the service online. This sounds particularly attractive for teaching-based services, such as those that involve teaching of languages (English and Cantonese) to ethnic minorities, immigrants, and refugees, and promotion of healthy lifestyle practices to school children. However, many logistical issues had to be resolved, pedagogies needed to be adjusted, additional manpower had to be allocated to support the students, and so on. However, these were at least do-able, and were largely done, although in some cases, there simply was not enough time to make the necessary adjustments.

1 Sarma, S. E., & Yoquinto, L. (2020). *Grasp: The science transforming how we learn*. First edition. New York, Doubleday, of Penguin Random House LLC.



11.3 Service from a Distance

Online STEM Teaching as Service – in Hong Kong

Prior to the coronavirus pandemic, we had planned to send 400 students to Service-Learning projects in seven overseas countries in the summer of 2020. All trips were cancelled due to the threat of the virus. In response, one of the teams completely redesigned their project, creating a set of STEM projects for primary school children in Hong Kong.

Several teams produced different projects, with different learning kits, each with their own lesson plans. They had to produce hundreds of kits, specifically designed for their student clients. Many thousands of parts had to be cut, packaged, instructions provided, and the kits sent to the students at the school, in a hurry because the schedules were tight and lessons were starting. Most of the teaching and guidance in assembling and experimentation had to be undertaken online.

It is service conducted remotely, but not virtually. It is not just theory or simulation. Because of the social distancing: we could not bring the children to our campus; we could not go to their school; the children could not even go to their own school; and we certainly could not go to the children's homes. However, all parties concerned wanted to persevere with the project and so we did it online, remotely, but with real artefacts.

This was not a virtual teaching scenario. Our teaching team had gone to great lengths to design the learning kits for the STEM projects and manufacture them in great numbers, pressing into service laser cutting machines belonging to different units all over campus. These were then sent to the schools. Because of the social distancing regulations in place at that time, an elaborate process had to be devised to ensure that the kits could be distributed without breaking the law. One teacher sat outside the school with one of our staff members; parents would bring their child to pick up the kits but stop at a distance of several metres away, so as not to violate the three-person-gathering law; the child would walk the remainder of the distance, pick up the kit, and return to their parent. Finally, a distribution point was set up at

a shop owned by one of the parents. Such was the ingenuity and determination. In the end, we were aware of no one becoming infected through this process.

The moment of truth came when the actual workshop started. Most of our students returned to campus to conduct the service, where the internet was more stable and where we could support them more effectively. We booked many rooms so that each small team of two students could have a room and computer to themselves, again, not violating the three-person-gathering law (when a teacher had to come in to observe and assess). Some students had to work from home, collaborating with their partner on campus. Our students showed the children the lives of horseshoe crabs. They guided them through a virtual reality tour of the facility at Ocean Park for the study of dolphins stranded in the waters of Hong Kong. We had previously assembled the virtual reality glasses and distributed them to the children. Using another kit, our students helped the children assemble a hydraulic robotic arm; again, the kit had been designed, manufactured, and sent to the children earlier. Another project involved a robotic car driven with an elastic band through an elaborate set of gears.

The children had so much fun. The teacher and the parents were so happy with the result.

We are so proud of our students and the Teaching Teams. The coronavirus was truly immensely frustrating and social distancing so constraining but we were determined to overcome the obstacles, to deliver something fun as well as educational for the children. Their joy in learning, their questions, and their laughter motivated us. Our students' enthusiasm, their efforts to do a good job, and their patience in guiding the children, were truly impressive.

The projects were real, the fun was real, the learning was real – for both the children and our own students. The school, the teachers, the parents – we are all learning that if there is a will, there is most definitely a way. Never give up.



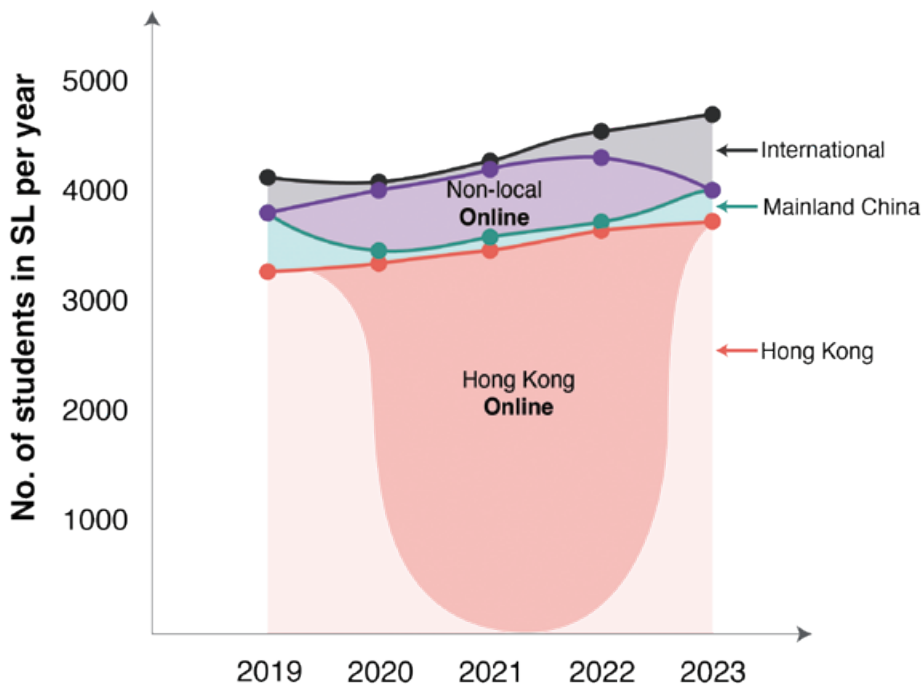


Figure 11-1. Overall statistics of implementation of online Service-Learning during the COVID-19 pandemic and beyond.

Online STEM Teaching as Service – Cambodia, Vietnam, and Rwanda

The virus meant the cancellation of all travel to foreign countries for Service-Learning. For a while, Hong Kong was under one of the strictest travel quarantine regimens in the world. While many teams were busily adapting their projects for online service in Hong Kong, other teams were carrying out similar projects for children in a number of foreign countries, including Cambodia, Vietnam and Rwanda.



Figure 11-2. Remote Service-Learning. Running STEM workshops online, with physical artefacts. (a) a PolyU student guides children in a remote location in assembling a robot car, using a kit that had been sent to the children earlier. (b) A group of PolyU students guiding a group of children in Rwanda on the use of 3D glasses sent to the children earlier.

On the surface, it seems that online international Service-Learning would be particularly challenging, with issues including time-zones, language, and limited bandwidth. However, many of these issues are also encountered in online local Service-Learning. In Hong Kong projects, translation is sometimes needed as many of our international students cannot speak Cantonese. Many of our non-local students did not return to Hong Kong and chose to attend classes online. They might not be in the same time-zone, even for their regular classes and, even in Hong Kong, not all families enjoy fast internet – indeed, one of the top priorities for

the Hong Kong Government when the pandemic hit and schools were asked to go online was to find ways to provide a reasonably fast internet service for low-income families.

With online service, it does not matter whether the parties are in the same location or not; what can be done with clients in Hong Kong can be done in collaboration with partners in foreign countries. Thus, we adapted the same method to work with children in Vietnam, Cambodia, and Rwanda as we did in Hong Kong. In each case we had to deal with issues of language, often relying on interpreters who are students or volunteers themselves.

We often had to tackle issues of lack of access to computers and poor networks, as we are typically working with communities that are under-resourced. We had to learn to rely less on direct interactions and more on videos, photos, and other forms of media; such is the digital divide in real life. It is one thing for students to hear that people in many developing countries have poor access to the internet. It is quite another to experience it yourself; the experience stays with you.

Imagine a rooster crowing suddenly in the background while you are explaining to a group of children how to assemble a model car with lots of gears to be powered by a rubber band. That is part of the cultural learning that our students were experiencing. It can be disrupting, annoying, or exciting depending on your state of mind. In any case it is a new experience to process.

Vietnam

We have a partner, Pham Van Anh's EcoVietnam, which runs learning centres in the Mekong Delta, near Ho Chi Min City with whom we had worked before and so we had a good understanding of each other. Within a short time, we were able to set up classes on STEM projects at one of their major centres in the Delta where there are classrooms, a library, and other facilities. Typically, students in the neighbouring villages come to the centre after their classes at the government schools to participate in various activities.

One of our teams managed to send them STEM kits and virtual reality (VR) glasses, and conducted a series of workshops online, with EcoVietnam volunteers acting as teachers who assisted the local children onsite. The workshops went very well. An interesting twist to the Vietnam story occurred when a group of young novice monks appeared and our team extended the workshops designed for young children to the novice monks. It turns out that monks are no different from other students when it comes to learning STEM! They enjoyed the workshops just as much and learned just as much.

Rwanda

If we can teach children in Hong Kong remotely, could we also teach children in Rwanda from Hong Kong? You bet. This is exactly what happened. After much negotiation, planning, testing of equipment, acquisition of hardware, installation of software, and agreeing the lesson time (there is a six-hour time difference between Hong Kong and Rwanda), our students launched the first lesson.

Our student team consisted of two Malaysians, one Indonesian, and two Rwandans. The students from Rwanda were studying at PolyU, partly as a result of our prior work in Rwanda. They also took Service-Learning subjects and were eager to help in the project which served their own country and served as a valuable bridge between us, the children in Rwanda, and their parents.

Three members of the team came back to campus to conduct the lesson, while two worked from their dormitory. Together they were teaching four Rwandan children from two families. All of the children spoke English but they were interacting with English speakers from a foreign country for the first time. How exciting!

The lesson started with a focus on local culture. How is Hong Kong different from Rwanda? We had previously sent them STEM, VR kits. Although we could not go there in person, it did not mean we could not make our impact in some other way. We were later told that their neighbours excitedly piled into their houses to see what was going on. Their access to the internet was one of the worst that we have

encountered so far. Social distancing also made the classes difficult to arrange. We have partners in Rwanda who have facilities with better access to the internet, and we had planned to ask the children's parents to take them to the better-equipped sites for the classes but sometimes they could not travel, even locally. Encountering very serious difficulties, we still managed to conduct some of the classes; the children enjoyed the classes and the opportunity to interact tremendously.

We have amazing students and teachers. We also have amazing partners inside PolyU, outside in Hong Kong, and overseas in several countries. They are the reason we were able to scramble to keep projects going, even though the virus had forced us to cancel all our original projects, not just overseas but also locally. In fact, we had to go to Plan B, C, D, ...

We are so proud of our Teaching Team who pulled this off. We are also grateful to our partners, with their volunteers and students in Vietnam, Rwanda, Cambodia, The Philippines, South Africa, India, and other countries which helped us put these projects together.

Assistive Technologies as Service – Delivered through Intermediaries

A Service-Learning subject offered by the Department of Biomedical Engineering, BME3S02, Assistive Technologies: Service-Learning towards the Elderly and Disabled, tackled the same challenge by delivering the service with the help of NGO partners as intermediaries.

In their service project, students design and develop assistive devices for the elderly or disabled. Devices include a Cooling Pad Box for wheelchairs, Dementia Sensory Stimulation Aromas and Games, Doll Therapy, as well as a Touch and Sensation Training Box. For example, sensor-equipped dolls are designed for the elderly with dementia to improve their social interaction. The project usually involves students paying multiple visits to their service recipients, as they evaluate and refine the design for a better, customised fit.

This was clearly not going to be possible during the pandemic, as the elderly and disabled are very vulnerable demographic groups in the face of COVID-19. Dr James Cheung, the subject leader, revised the project design process for the students. Working with the NGO partner, the project specifications were re-designed to focus on small devices or mobile apps, many of them concentrating on users maintaining some level of physical or mental fitness while isolating at home.

The students interviewed the social workers to understand the users' needs and preferences, and then tailor-made assistive devices. They also produced video- and user-guides for the needy and for the social workers. These products were then delivered by the NGO partner during home visits to check on their clients or to deliver meals. Our students would then get feedback from the service recipients by phone and by video. Many such devices were developed and delivered in this manner.

Collaboration across the World – the Pretoria Connection

The Process of Collaboration

In Fall 2020, we developed a new cross-country initiative – a joint project between PolyU and the University of Pretoria. Actually, this was a project with four parties in two different countries. PolyU students (party 1) taught a group of students from Caritas Ma On Shan Secondary School (CMS, party 2) in Hong Kong how to take 360-degree photos and videos. At the same time, we were also collaborating with students from the University of Pretoria (party 3) and middle school students from a township near Pretoria (party 4) how to do the same in South Africa. To facilitate the project, we shipped the cameras and other relevant equipment to South Africa.

PolyU students and students from CMS visited a range of sites, including Kowloon City Walled City Park, the PolyU campus and Tsim Sha Tsui, to take footage on the theme of Hong Kong cultural heritage. Hong Kong is notable as a cross-roads where ancient Chinese culture meets the modern world. The Pretoria

students and those from the South African townships used the same technology with the theme of South African wildlife at an animal park near their campus. All the footage was then to be edited into a movie integrating the different themes. Due to COVID-19, the shooting in the field in South Africa had to be delayed for 10 days, creating much anxiety and, in the end, meaning that although each side produced their own videos, there was not enough time to splice them together.

Through the project, PolyU students had to learn how to use the 360 cameras, take regular photos and videos, and write a story to integrate all the themes into one video. They then had to teach CMS students in Hong Kong and the Pretoria students how to use the equipment and do basic editing of the videos. Finally, they also had to get the township students involved in the process in some way.

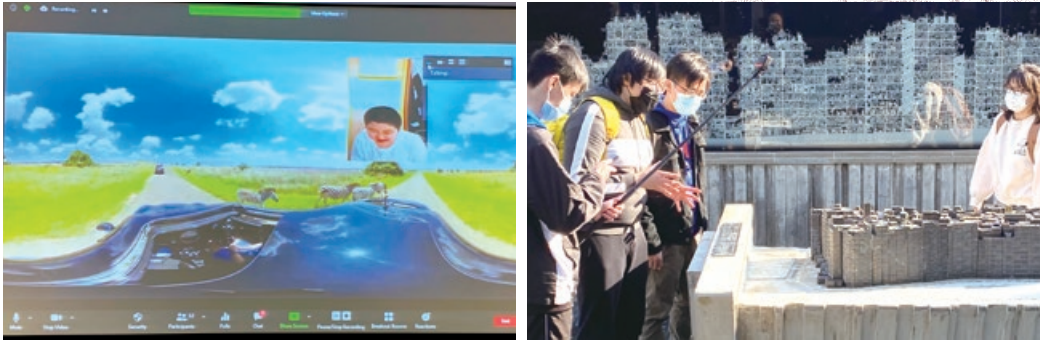


Figure 11-4. (a) South African students guiding Hong Kong students on a 3D tour of a safari park. (b) Hong Kong students guiding South African students on a 360-degree tour of Kowloon Fort Park.

All of this had to be achieved via video conferencing and various social media wherever possible. The four different groups of students faced challenges related to different aspects of the digital divide and to varying degrees. The PolyU students who had access to our campus enjoyed access to a wide range of equipment and technical support. PolyU students who were at home, some away from Hong Kong in their home country such as Kazakhstan, India, Indonesia, or Malaysia, were clearly at a disadvantage. Pretoria students faced challenges of limited bandwidth, depending on where they were, compounded by the severe COVID-19 situation. The school students from the townships faced the most severe challenges with most not having computers at home. Initially they could access computers on the Pretoria campus but these subsequently became inaccessible because of COVID-19 when they could then only rely on basic mobile phones.

The reality of the digital divide and social issues posed almost insurmountable challenges but, at the same time, they presented learning opportunities impossible to recreate in the classroom. The different groups of students demonstrated enviable ingenuity, finding innovative solutions to tackle different challenges. Everyone pulled together to help the least privileged members of the team to get involved as much as possible.

It was an immensely valuable lesson for everyone involved. Those on the “have” side cannot leave those on the “have-not” side behind. Without the contribution from all parties the project could not have been completed successfully. It is expected that the lessons learned will be useful for all those who participated. In

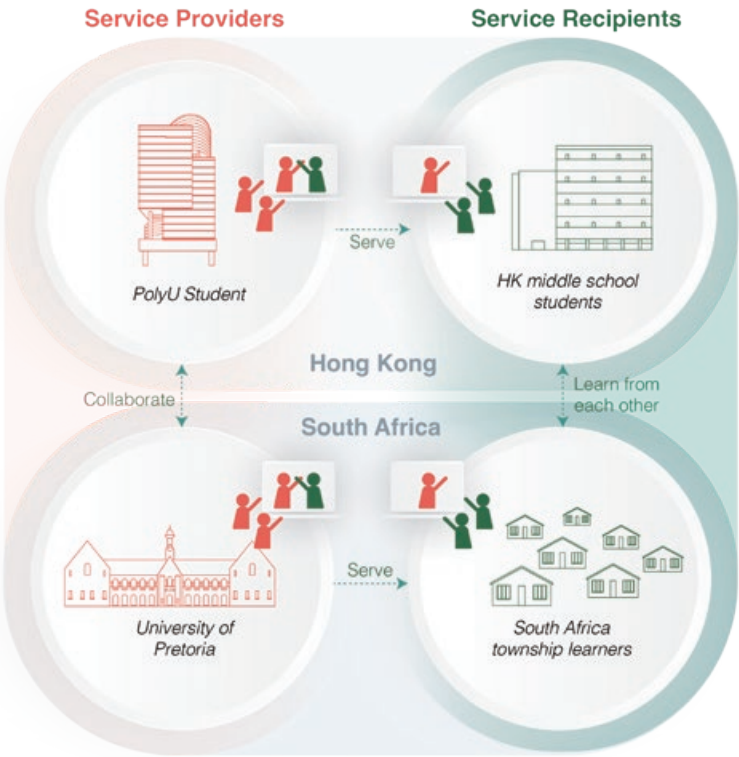


Figure 11-3. Four-party Remote Service-Learning. HK – South Africa Collaboration during COVID, 2021.

real life, the “have” countries and communities cannot interact/trade with each other only. The “haves” cannot completely ignore the “have-nots”, if only because they wish to trade with them.

The Fruits of the Collaboration

After overcoming numerous challenges, the joint project between PolyU and the University of Pretoria finally concluded. The four parties produced videos making use of still photos, 2D cameras, 360 cameras, and VR techniques to present what they had achieved and what they had learned from each other.

They had taken footage from Hong Kong, including of Kowloon Walled City Park, PolyU, street scenes from Tsim Sha Tsui, students learning Kung Fu, and students programming in teams. From South Africa, the video included footage from students’ homes, school grounds, school uniforms and study scenes, slithering snakes, meerkats, zebras walking, and lions feeding. The footage was turned into a collage of techniques and themes with some pleasantly surprising creativity: conjuring up Bruce Lee and asking him to teach the township children Kung Fu; calling Elon Musk to help bring Hong Kong students to see animals in South Africa; contrasting zebras strolling in a safari with students practicing Kung Fu and just walking around on campus; watching slithering snakes; and touring each other’s houses through VR glasses.

It is surprising how much can be learned and achieved through intermittent online interactions over just two weeks. In the beginning there was a lot of anxiety, shyness, and awkward moments. The university students worked hard to engage the school students from Hong Kong and the townships in South Africa and gradually the school students opened up and actively contributed to the project. The fairly sophisticated technology was not easy to master even for university students. There were significant technical challenges due to the exclusive reliance on online interaction without in-person contact, the poor access to the network and hardware faced by the township learners, and so on. Despite all the obstacles and challenges, some very creative storylines were produced.

Reflection on the Collaboration

One of our students asked whether we were making a real impact on the school students. This is an important question that deserves to be considered carefully at multiple levels. The school students were able to access technologies normally inaccessible to them and they seemed genuinely interested and engaged enthusiastically with the technology and with the university students. From their laughter and spirited participation in the production of the videos it is evident that they enjoyed the experience. Hopefully, they became a bit more interested and confident in technology after learning by doing. At this level we can be confident we made a modest impact on their lives.

Did we change their lives in a significant way? Perhaps not. We certainly did not make them materially richer; they will continue to live their daily lives the same way as before. To start with, we should be realistic as to how much material impact we can expect to make in such a short period of time with a small budget. Our students engaged with each of the learners for perhaps no more than 40 hours in total over roughly two weeks. We had no money to give to them, only some skills and some technology.

It was suggested that we could have given the school students the funds that we spent on our students, to perhaps make a bigger impact. This was, however, not possible because that was not what the funds were allocated for – to make an impact in the community, through providing an opportunity for our students to learn. We have no authority to simply give away money, depriving our students of the learning opportunity. Even if we had been permitted to do so, any financial contribution still would not have been enough to make meaningful change in a sustainable way. Exposing them to new technology, a more experiential way of learning, giving them a new experience by getting to know university students in their own country (and a different ethnicity for those in South Africa) is something we should probably be satisfied with.

From our perspective, the education of our students is the most critical of our many objectives, our real mandate, and our best bet in making an impact. We spent

the most effort, time, and resources teaching, training, reflecting, encouraging our own students. As we keep saying, we are not aiming to turn them into social workers. We are aiming to help them grow up into professionals of their own chosen discipline with a social conscience. It is through them that we hope to make the biggest impact on the community.

One of our students admitted that she was surprised in the beginning to find white students at the University of Pretoria and asked where they were from. It turns out the white students were born in South Africa. In fact, without white South Africans there would not have been a reason for apartheid and the associated injustice, conflict, and ensuing problems, something she was not aware of. The stereotypical “single story” of a black Africa is so entrenched that an African who is white surprised her. It is the result of the social environment in Hong Kong, the distance and lack of contact, all contributing to a “single story” of “Africa” that prevails in Hong Kong. That she recognised it and had the courage to admit it openly to the class is a step forward. Hopefully, this subject has helped all parties gain a little more interest and confidence with the technology, a little more curiosity about and better perception of an unfamiliar people and culture, a little more willingness to experience something different, and a little more care and empathy for people who are different in so many ways. If so, in that case we would have done our job. Opening minds is so much harder than teaching skills.

Finally, teaching this subject is truly a team effort. It was a very bold project with so many challenges but we knew this from the start. There was the subject planning, setting the direction to work with the University of Pretoria, bringing in the school students from Hong Kong, bringing in the school students from the townships in South Africa, developing the technical content, arranging for the right equipment to be shipped a such long distance and distributed to so many parties, developing the teaching plan, coordinating and running the training, classes, outings, storyline development, video editing, and reflection sessions, and so much more. It was extremely taxing for just one teacher, and few can handle so many aspects of such a project. We are practising so many of the things we are teaching our students. All in all, this was a very satisfying experience for our great teaching team as well as our students.

Remote/Online Service-Learning (rSL)

The coronavirus caused the cancelation of PolyU’s planned Service-Learning projects in foreign countries such as Cambodia, Rwanda, and Tanzania. A few teams decided to wait the virus out and suspend Service-Learning. Most teams however did not want to admit defeat and moved their service project online using much the same techniques that were deployed for remote learning around the world. Some teams wanted to make the learning as physical and experiential as possible and put to use a great variety of tools such as 3D glasses, VR glasses, home-made 3D movies, home-manufactured kits with geared cars, and hydraulic arms. We ended up using these tools with schoolchildren in Hong Kong, Cambodia, Vietnam, and Rwanda.

The Teaching Team and the students had to overcome many obstacles: access to computers and internet for the children, particularly those in developing countries and under-served communities; the logistics of distributing equipment; multiple language barriers; and capturing and retaining attention. What was not lacking was passion from all our stakeholders (schools and NGO partners, and parents), the enthusiasm of the children, the learning and satisfaction of our students, and the appreciation of all our partners – near and, particularly, from afar. While our students were disappointed by not being able to travel to international Service-Learning projects, many still managed to learn much through cross-cultural, cross-boundary, technology-infused online Service-Learning.

Now that the very challenging COVID-19 pandemic is over, what happens next? Is there a future for remote Service-Learning, or rSL? Definitely. There are at least two fronts on which we have gained experience with a lot of potential.

The pandemic, or more precisely, our response to the pandemic as education, industries and commerce moved online, has clearly demonstrated the extent and impact of the digital divide. In affluent Hong Kong, there are pockets of people, some quite significant in size, with a lack of access to adequate computers and sufficient internet bandwidth. In many developing countries such as Cambodia and Rwanda, the situation is the opposite. Instead of pockets of “have-nots” in a

society of “haves”, there are only small pockets of “haves” in a society of “have-nots”. Furthermore, if there is a divide in infrastructure (hardware and software), the divide is even more stark in terms of human capital (knowledge and expertise). While teachers in Hong Kong were managing different degrees of success in teaching online, there was practically no teaching online in many countries and communities on the other side of the digital divide. While education in developed countries was inconvenienced and delayed, it was stopped completely in many developing countries.

The gap is only going to widen. The emergence of Generative Artificial Intelligence (AI) post-pandemic threatens to upend education as we know it; again, developing countries are likely to get the short end of the stick in terms of access to these technologies. However, the lessons that we have learned in conducting online classes with a certain degree of physical, experiential learning points to a possible way forward. With or without travelling, teachers and students in more privileged countries and communities can conduct online classes for children on the opposite side of the digital divide. Our bodies may not be able to travel, but there is no reason why knowledge cannot. We should not wait for governments, politicians, and big organisations to make it happen. Individuals, schools, and NGOs can work together to make it happen sooner rather than later.

The pandemic also accelerated the adoption of teleconferencing globally. Pre-pandemic, it was very difficult to convince community partners to hold online meetings, meaning that discussions, negotiations, and preparation work often needed to wait until we were in-country, on the ground. The pandemic forced an acceptance of these technologies and community partners, even in remote areas, now readily welcome zoom meetings. This makes possible a form of hybrid Service-Learning for non-local projects, whereby teams can conduct part of the service online and complete the service onsite, face-to-face in the community. This has the benefit of allowing for a more integrated preparation-execution cycle for non-local projects, whereby the needs assessment can be completed online earlier in the semester, followed by a lengthy proposal, design, and prototyping process, before the actual product is deployed to the community.

11.4 IARSLCE International Research Award

IARSLCE stands for the International Association for Research on Service-Learning and Community Engagement. It is a renowned international organisation whose primary objective is to cultivate, encourage, and present research on Service-Learning and community engagement across all levels of the education system. The Association promotes high quality trans-disciplinary research across a wide range of approaches, and builds the capacity of scholars, practitioners, and community partners to engage in such research.

IARSLCE runs a flagship annual international conference attended by many hundreds of participants. It is a conference we have been attending and presenting our research results at since 2016. We have learned much and made many connections, some of which have led to fruitful collaborations, such as student exchange and other projects. It is also partially through our publications and participation at IARSLCE that our work has become better known and recognised by the international community.

The purpose of the IARSLCE International Research Award, as stated on their website², is to recognise “excellence in research and scholarship that advances the study and practice of Service-Learning and community engagement within and/or across borders and cultures, expanding knowledge on cultural, regional, and national practices in Service-Learning and community engagement theory and practice, especially work that centres on or engages with non-US contexts”. In 2020, the International Research Award was awarded to The Hong Kong Polytechnic University. The citation reads:

² <https://www.iarslce.org/internationalresearch>

The International Research Award recipient is the Service-Learning and Leadership Office at The Hong Kong Polytechnic University (PolyU). Identified “as one of world’s most impressive and impactful Service-Learning initiatives in higher education,” PolyU has developed international partnerships in places such as Rwanda, Cambodia, Kazakhstan and Kyrgyzstan, focused on engaging students in tackling complex and significant issues. The impact of these programmes on the lives and livelihoods of community partners alongside scholarly contributions about multicultural and cross-cultural engagement showcase the contributions of PolyU to the enhancement of international efforts in Service-Learning and community engagement.

Our nomination focused on international Service-Learning. To support the nomination, documentation was provided which included reference to major features of our operation, such as: the offshore bases that we have developed to support international Service-Learning; the strategy of short-term trips anchored on long-term relationships with strong impact; deep and broad international collaboration; research-informed pedagogy; and online Service-Learning.

Our nomination was supported by the testimony of two highly esteemed members of the Service-Learning community. They noted particularly the hundreds of students who participated in international Service-Learning each year in the many foreign countries served, the long-term collaboration with local partners, making maximal impact with short-term projects, high quality training, supervision and reflection, the broad range of student participation, and the integration of international Service-Learning with large-scale domestic projects in Hong Kong and Mainland China. We were recognised especially for generating fresh knowledge resulting from research, and extensive dissemination of our experience with others in the field, through student exchanges and collaborations, publications, and workshops.

One of our referees highlighted the serious efforts made by SLLO (and its predecessor OSL) and our dedication to quality, our recognition of the importance of cross-cultural Service-Learning, the efforts we have made to tackle complex and significant issues such as solar panels for energy and filtration for cleaner water, the rigorous training of our students to ensure proper learning and impact and, finally, the publication of research and organisation of conferences.

One of our most robust NGO partners also wrote a strong letter of support, highlighting the efforts made by our students, their passion and dedication, desire to understand the local community and to develop effective solutions, and their passing on to local youths the relevant skills and knowledge.

We are, of course, very grateful for the recognition and the support from our many friends and partners. Certainly, we will continue in this enterprise with renewed vigour.

11.5 Habitat Green – Remote Engineering

The COVID-19 pandemic interrupted international travel and face-to-face teaching and added complexities to our service projects starting from early 2020. However, community needs did not disappear because of COVID-19, and the lack of electricity makes a lockdown situation even worse. In 2020-2021, we took the step of piloting an online tele-engineering project.

“Habitat Green in East Africa” is a Service-Learning and leadership programme focusing on nurturing students’ global leadership and cultural sensitivity in the context of cross-disciplinary green engineering, appropriate technology, and sustainable living. PolyU students worked together with students from local schools in Rwanda to design and develop green energy solutions for families in remote villages. In the process, PolyU students learned about the concepts of socially responsible leadership, intercultural competencies, racial tolerance, and

global citizenship, and demonstrated these in practice. They also learned about different principles of green engineering, sustainable development, and appropriate technology, and adopted the concepts into the service projects.

In 2021, the project involved 56 students enrolled in three Service-Learning subjects: COMP3S02: Socially Responsible Global Leadership in a Digital World, from the Department of Computing, EE2S01: Low-cost Energy Infrastructures for Developing Regions, from the Department of Electrical Engineering, and BSE3S02: Living Environment for Low-income Communities in Developing Regions from the Department of Building Environment and Energy Engineering.

Tele-engineering in Rwanda

How it Happened

In Summer 2021, we installed solar panels, together with wiring for LED lighting, phone chargers, and a radio for 150 households in a village in Rwamagana district in Rwanda. At the same time, “rocket” stoves, much more efficient, clean, healthy, and fuel-efficient than the traditional three-stone stoves, were installed in those households. All of this was accomplished without us going there. How was it done?

Three teams, led by professors from the Departments of Computing, Electrical Engineering, and Building Services Engineering, made meticulous preparations with their students from the beginning of 2021. They designed, tested and simplified, repeatedly, the systems to be installed, knowing that physical travel would most likely not be possible and so for the project to work we had to rely on local volunteers. The systems had to be as simple as possible but also robust and efficient at the same time. In the past, we had made electrical connections using the cheapest method, stripping the insulation from the ends of the wires and then using a screwdriver to secure them. This time we soldered connectors to the ends of the wires so that the local volunteers would only need to plug in the connector. This way it is faster to install, and it is less likely that there will be problems, but it is more expensive and more effort must be put into the early stage of the assembly.

We manufactured and assembled the solar panel systems as far as possible, shipped them over to Rwanda, and taught the local volunteers to finish the assembly and installation.

In the case of the stoves, the bricks had to be purchased locally. It simply does not make sense to ship bricks from Hong Kong to Rwanda, partly because of the shipping cost but also because of the benefit of using local material as far as possible. Likewise, 150 big rechargeable batteries to store the electricity generated by the solar panels and small ones to operate the radios also had to be purchased locally. Funding for these items was a challenge in itself.

Then there was the problem of shipping 150 sets of solar panels, charging controllers, LED lights, switches, cables, and tools, a shipment totalling more than two tons. The logistics of shipping them over there, declaring them properly to customs, and transporting them to the local site through the pandemic lockdown required meticulous planning, money, and prayer.



Figure 11-5 Some of the materials and equipment shipped to Rwanda from PolyU.

Our local partner, African Evangelical Enterprise (AEE) Rwanda, considered this project a top priority, assigning a top administrator to manage the project. They found a suitable village off the electrical grid, assigned several of their staff to be team leaders, and recruited many young local volunteers. One of the reasons the project was sited in Rwamagana is that AEE Rwanda runs a vocational school,

the Center of Champions, in the town. The Center teaches practical skills including basic electrical technology, plumbing, and sewing. They were able to recruit some young graduates from the school who had been trained in electrical technology, some of whom were actually from the served villages.

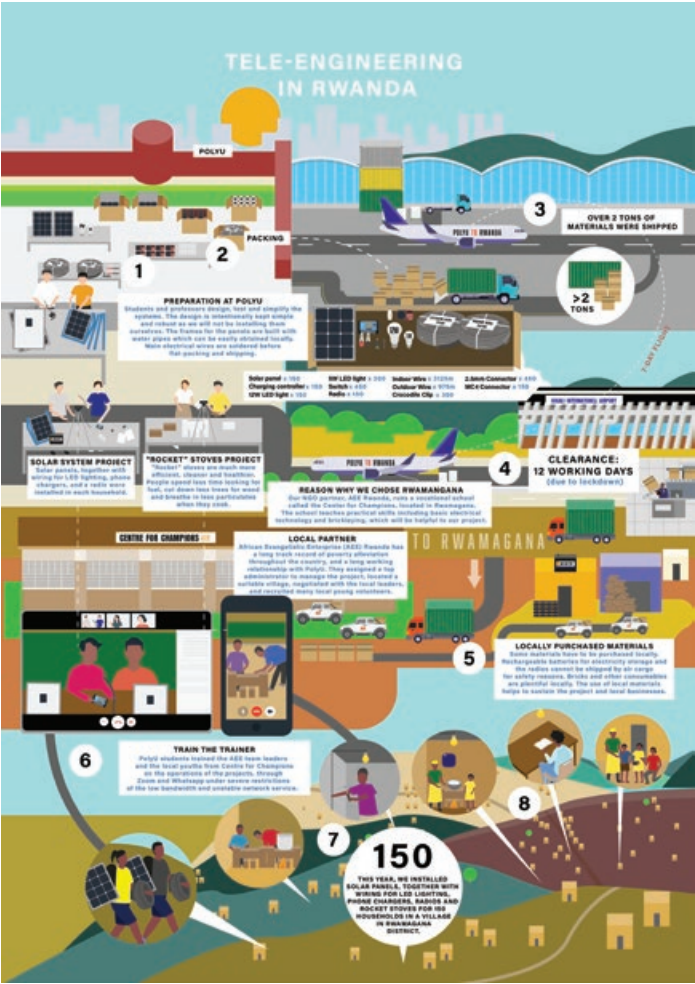


Figure 11.6
Eight-step overview of the Tele-Engineering project carried out in Rwanda, during COVID, in July 2021.

There was one problem, however, and an almighty scare along the way. Rwanda had been reporting a relatively low number of coronavirus infections for a long time. We were even entertaining the thought that we might be able to send a small number of staff over there to help with the project. AEE Rwanda was hoping

that we would be able to do that, since this was for them quite a big undertaking that they had not attempted before; this would be the first time, since we started collaborating in 2013, that we would not have had a physical team on the ground. In June, however, suddenly there was a big jump in the number of inflections in Rwanda and the government imposed a lockdown. Not only were we not able to travel there from Hong Kong, even the local people could not move around. How could the shipped material be collected, the batteries purchased, and the equipment moved to the served villages, not to mention sending the local youths to the site to do the physical installation?

After much anxious waiting and prayers, the lockdown was eased slightly. We were then able to carry out the project. Our students from Hong Kong trained the AEE team leaders as well as the local youths on the operations of the projects, with great difficulty, through the internet, making use of video conferencing, social media, and whatever technology that worked, under the severe restrictions of low bandwidth and an unstable network service. Once the local youths mastered the techniques needed, however, they worked amazingly fast. At one point, our students in Hong Kong could not connect with the Rwandan youths through the internet at the appointed time and were naturally worried. It turned out that the local youths were working so hard, and were so keen on getting the job done, that they had forgotten to connect with our students for coordination, progress monitoring, and testing. In the end, the installations were completed ahead of schedule.

We had a small, secret weapon that was also quite important. PolyU had been accepting undergraduate students from Rwanda for a couple of years, partly because of our earlier work in Rwanda. Two of



Figure 11-7. PolyU students training Rwandan youths online on wiring of houses and installation of solar panels.

them happened to be home during the summer break. These two students ended up working for us, helping us find critical equipment such as the batteries, monitoring the progress of the project, and running important errands.

This audacious tele-engineering project would not have been completed, or even attempted, if we had not been operating in Rwanda since 2013, if we had not gotten to know Rwanda reasonably well by this point in time, if we had not developed admiration for the commitment and effectiveness of AEE Rwanda, if AEE Rwanda had not developed trust in our commitment and capabilities, if our team had not planned meticulously, if our students had not worked so hard to manufacture and assemble the equipment, if we had not found a way to ship tons of equipment to Rwanda, if we did not have those skilful graduates from the Center of Champions, if AEE had not assigned a top administrator and capable team leaders, if the lockdown had not been eased, and...if we did not have faith.

We were probably fortunate that everything turned out fine in the end. However, it was also a truly great team effort, with players from so many different backgrounds, with such diverse skills, joined together with one great desire to do something good for people who needed and deserved them. Our prayers were answered.

Remote Engineering – A Snapshot

On this day, the local team were to start installing the systems in the village. Our students were working online to support the installation ... This is what transpired:

"Where is team 1? We cannot get in touch with them!"

"Team 3 cannot connect with their partners either."

"The team has arrived in the village."

"Gerald is helping them a lot."

"Who is the house owner?"

"Can you tell us the name of the owner?"

"Can you show us the inside of the house?"

"Your mic is muted."

"Can you get Eric on WhatsApp?"

"How many are in the house?"

"Just three, right?"

"I want Eric!"

"The battery can be on the floor."

"But should be in a place where the children will not play with it."

"Plug the lamp cable there."

"The lamp cable?"

"Stop! The cable is tied."

"Now it is OK."

"Goo ... goo ..."

"The baby is so cute."

"There is a nail next to the controller."

"You can hang the radio on the nail when it is charging."

"We are moving to another house."

"How is the progress? The installation."

"We are finished with one house. We are moving onto the next one."

"This is living room."

"This is LED."

"This is controller box."

"Take a look at this. The cable should not be stretched. It should be like this."

"Thank you."

"Süleymen! Süleymen!"

It was barely-managed chaos. Almost unbelievably, progress was made. Remote engineering as Service-Learning.

11.6 The Secondary School Thrust

SLLO organised an online Service-Learning Symposium for Secondary Schools, held on November 28, 2020. The Symposium attracted over 80 secondary school principals and teachers interested in promoting Service-Learning in secondary education.

As our keynote speaker and workshop facilitator, we were honoured to have Ms Susan Ward-Roncalli, a National Board-certified Teacher in the United States with over 30 years of classroom experience and a veteran Service-Learning practitioner in the secondary sector, to share her insights and experience in implementing Service-Learning in secondary schools by delivering a keynote speech entitled “Service-Learning in Secondary Education: Value, Implementation Models, and Challenges”.

The online symposium offered bilingual simultaneous interpretation and participants were able to interact and share with and learn from each other in the breakout discussion sessions under the facilitation of experienced PolyU Service-Learning teachers. Participants had a very positive view of their overall learning experience of the Symposium, with 100% of the participants giving a rating of 3 or above (mean=4.24) (Rating scale: 1=poor; 5=excellent). They also agreed that they were able to achieve the intended learning outcomes of the Symposium, with the mean ratings of the items ranging between 4.00 to 4.30 (i.e., between ‘agree’ and ‘strongly agree’). Over 80% of the participants indicated clearly that they were interested in collaborating with PolyU to apply Service-Learning pedagogy into their subject teaching or other school activities.

We were encouraged to see this and it led to a proposal, and then a project, funded by the Keswick Foundation and the Chow Tai Fook Charity Foundation, on capacity building in Service-Learning for secondary schools in Hong Kong. That project commenced in 2022 and, to date, involves 80 secondary schools, representing a broad spectrum of socio-economic statuses in Hong Kong; there are the elite schools running International Baccalaureate programmes, top-tier schools that consistently send students to the top universities in Hong Kong, schools that primarily cater to ethnic minorities, and residential schools that work with troubled

youths. We believe that social responsibility should be taught at a young age and we continue to seek collaborations with secondary schools to promote holistic education through Service-Learning in secondary education.

11.7 Symposium and Expo-Virtual World

Despite the pandemic, we felt that people still wanted to gather, to share stories and practices. Therefore, we organised the online “International Symposium and Expo on Service-Learning and Socially Responsible Global Citizenship”, which was held on July 9-10, 2021. The Symposium and Expo connected teachers, students, and the Service-Learning community, facilitating a sharing of experiences and showcasing of projects, and the opportunity to seek support from each other and others in the community.



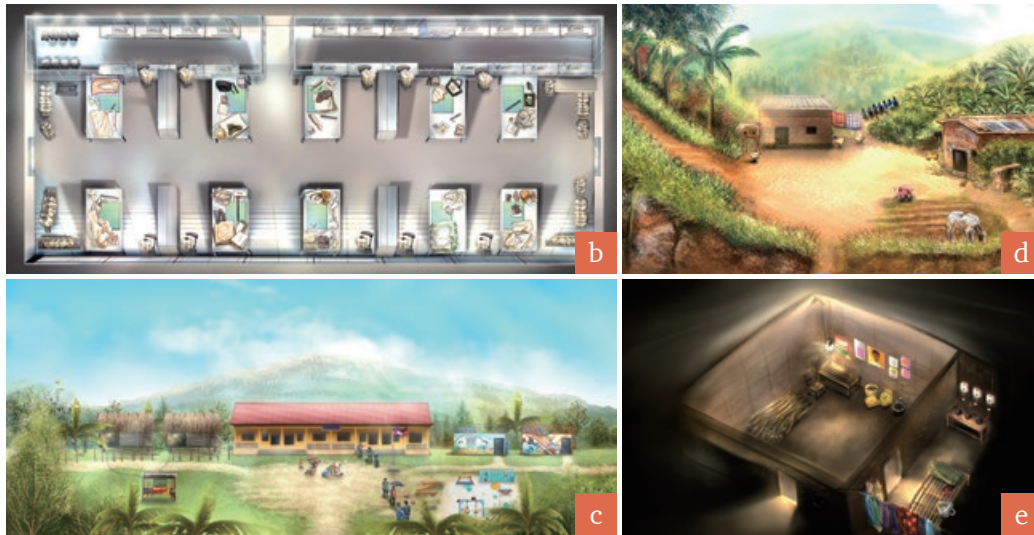


Figure 11-8. The virtual world built by the SLLO team, which became instrumental in the teaching of Service-Learning, and exhibitions such as the International Symposium and Expo in 2021. (a) a virtual catwalk exhibition of the clothes designed and made by the fashion-as-service project; (b) a virtual workshop used by the students in the fashion-as-service project; (c) a virtual world exhibiting the STEM community learning centre and playground in Cambodia; (d) a virtual world exhibition of the Rwandan village in which hundreds of houses have been provided with solar panels and wired for electricity; (e) a virtual house used as a battery charging station in the Rwandan village.

The virtual Expo showcased several PolyU flagship Service-Learning projects, as well as attracting exhibits of over 50 other Service-Learning projects from 16 regions or countries. Over 800 participants of diverse backgrounds converged on the virtual space facilitated by the Gather platform, which was tailor-made to support the event, with over 200 interactable exhibits, e-poster and video presentations, and live conversation that mimicked a physical conference setting. The participants also had the chance to attend over ten invited talks and interactive workshops via Zoom.

The two-day event was packed with inspirational sharing sessions. Professor Jin-Guang Teng, President of PolyU, officiated at the opening. He congratulated all Service-Learning practitioners on their achievements, particularly their accomplishments in overcoming challenges brought about by the COVID-19 pandemic. He also encouraged fellow teachers, students, and community members

with a quote from the two-time Nobel Prize awardee, Marie Curie, to “work for their own improvement and share a general responsibility for all humanity.”

Three world-class academics and a renowned educator from Hong Kong shared their insights on service-oriented education and Service-Learning as a pedagogy to drive personal, social, and global changes. Leading off was a keynote speech delivered by Professor Harry Lewis from Harvard University entitled “Learning as Service”. He stressed the importance of integrating a service perspective into modern education, which is often characterised by intense competition and individual ambition. A talk by Professor Andrew Furco from the University of Minnesota, “The Transformational Power of Service-Learning: A Global Perspective”, was another highlight of the day in which he discussed the essential elements that move a Service-Learning experience from simply rewarding to transformational, illustrated with concrete examples from various case studies.

The second day started with a talk by Dr Luke Terra, Director of Community Engaged Learning and Research, Hass Center for Public Service at Stanford University. He walked the audience through tips about how to adopt Service-Learning as a high impact practice to enhance academic learning in K-12 classrooms. This was followed by the talk from Mr Dion Chan, Principal of the YMCA of Hong Kong Christian College. His sharing on “What a Teenager could Do” used the model from his school to illustrate how community engagement can be cultivated for students in a secondary school setting.

There were also nine interactive workshops delivered online, face-to-face, or in hybrid mode, facilitated by experienced Service-Learning practitioners from all walks of life. The themes broadly covered the hands-on implementation of a Service-Learning subject, art creation and co-creation, diversity and inclusion, design thinking with empathy, fostering international Service-Learning partnership, cross-generational e-sports, as well as the teaching and learning of artificial intelligence in secondary school classrooms.

Alongside the Symposium, the virtual Expo displayed the rewarding outcomes

of a variety of PolyU Service-Learning projects – including empowering students with special educational needs with fashion design experience, developing digital stories for NGOs, innovating prototypes for elderly or people with disabilities to improve their quality of life, and enhancing energy efficiency for remote villages in Rwanda.

Apart from the PolyU projects, the Expo also hosted over 50 e-posters and videos documenting community engagement initiatives, Service-Learning projects from Hong Kong, Mainland China, Asia, North America, Africa, and Europe. The exhibits sparked robust interaction between the presenters and attendees in the form of live video chat during the poster and video session held in the afternoon of Day 1. The People’s Choice Awards were presented to honour the top three video/e-poster teams receiving the highest number of votes from the participants on the Secondary School Track and Higher Education Student Track respectively. The winners were, in no particular order, “Saving Lives Together: A Cross-cultural Effort to Build an Animal Shelter” by Little Animals Protection Society and Hefei Thomas School; “Multi x Multi 2.0” by St. Clare’s Girls’ School; “From Lasallians with Love” by La Salle College; “#AghamUnite” by the University of Santo Tomas; “Beach Clean Up” by the Methodist College Kuala Lumpur; and “BMED Academy (An Instagram Account)” by The Chinese University of Hong Kong. The virtual event was well-received. In particular, participants appreciated it as a thoughtfully created space that facilitated borderless networking, global dialogues, and lively celebration.

11.8 Engaging the Mainland

There has been growing interest in Service-Learning in Mainland China in the last decade. Some tertiary institutions like Shantou University, Nankai University, and Fudan University, among others, have developed their own Service-Learning subjects with encouraging outcomes. To facilitate knowledge exchange on Service-Learning education between PolyU and universities across the China Mainland, SLLO organised an online symposium on July 9, 2021 for teachers and researchers nationwide.



Figure 11-9. The online National symposium on Service-Learning in 2021.

The Symposium was conducted in Mandarin (Putonghua) and structured into two parts. First, speakers from PolyU, Fudan University, and Shantou University were invited to talk about the development of Service-Learning at their institutions. Professor Daniel Shek, Interim Vice President (Research and Innovation) and Associate Vice President (Undergraduate Programme) of PolyU, gave a presentation on PolyU’s Service-Learning development,

especially during the pandemic. Referring to studies on mandatory Service-Learning, student learning outcomes and longitudinal impact, Professor Shek demonstrated the potential of Service-Learning in nurturing university students as civically engaged and socially responsible individuals. By sharing the experience of switching Service-Learning online during COVID-19, Professor Shek described how PolyU was forced to learn and adapt in a time of adversity, eventually turning a threat into an opportunity for exploring innovations, collaborations and partnerships that transcend physical, intellectual, and social boundaries.

The second speaker, Dr Xu Longshui, Associate Chief Physician of the Charitable Healthcare Project Office of Shantou University Medical College, shared his work on leading more than 100 medical students from different universities in China to provide medical services to the poor in rural villages. His sharing session not only covered the theoretical foundation of integrating Service-Learning

into medical training but also the rationale for developing medical students as professionals with empathy and inter-disciplinary knowledge, who can address complex medical issues in the 21st Century. Dr Xu also talked about the assessment framework used, comprised of practicum, service performance, written reflections, as well as evaluations from teachers, peers, and service recipients.

The third speaker, Mr Bao Chunlei, Associate Professor of the Art Centre of Fudan University, used his own subject as a case study to underline the value of practising Service-Learning with an art subject. In his subject “Art and Creativity (Ceramics)”, students from diverse disciplines were engaged to first learn about the concepts and techniques of ceramic production and then transfer their knowledge to socially disadvantaged communities. Through taking part in direct service, guided group reflections, and even organisation of exhibitions for their project deliverables, the students enjoyed candid interactions with the service targets, a sense of integration among their groupmates, and a growing capacity to understand themselves better.

The audience posted questions online and, collectively, showed a genuine interest in distinguishing Service-Learning from other forms of learning such as leadership training, field study, volunteering, and internship. The keynote sessions were followed by five breakout sessions of moderated group discussions. The session facilitators were each invited to deliver a short presentation related to their expertise, after which the floor was opened for discussion. The five sessions were, respectively, “How to Design a Service-Learning Subject” by Dr Stephen Chan from PolyU, “Reflection in Service-Learning” by Dr Hung Liu from Fudan University, “Assessing Students’ Service-Learning Outcomes” by Dr Xu Huixuan from The Education University of Hong Kong, “Teaching and Educational Research on Service-Learning” by Dr Zoe Xiao from Hong Kong Baptist University, and “International Service-Learning Development” by Ms Cindy Lam from PolyU.

The online Symposium attracted over 100 teachers, practitioners, researchers, and postgraduate students from post-secondary institutions across China. Many indicated that they appreciated the chance to learn about the design of Service-Learning curricula and research methodologies from their counterparts.

While it was gratifying to see that the overall experience was positively rated at 4.6 out of 5, we definitely look forward to a face-to-face symposium that would bring such valuable exchanges on inspiration and experience to the next level in the near-future.

11.9 Contribution of the Community Partner in Service-Learning

In Service-Learning, one of the challenges is to maintain an appropriate balance between student learning and community benefits. From the perspective of a power relationship, it is often perceived that the University holds the balance of power over those of the community partners.

The community partners, however, play an important role in the education of the students, in partnership with the teachers of the subject. Much of the students’ learning comes from exposure to the community, listening to the community, understanding the needs of the community, and providing the service to satisfy part of those needs. Without the cooperation—passive as well as active—of the community, the students’ learning would be greatly diminished.

The teacher normally decides what students are expected to learn. The teacher also does much of the teaching, particularly the conceptual elements, but the experiential aspects of the learning, the most distinctive and valuable part of Service-Learning, typically comes from interaction with the community. In this sense, the community is teaching the students. This can happen explicitly and intentionally, when the community partners explain their situation, the social issues they are suffering from, the impact of those issues, and possible remedies; it can also happen implicitly through the students’ experience in the community, observing, interacting, investigating, and problem-solving.

The community partners invest in the relationship their time, effort, knowledge, and attention; this contribution should be properly recognised and rewarded. However, it appears that this may not always be the case. The contributions of the community partners are too often considered to be passive, or potential contributions from the community partners may not be fully utilised. Partly therefore, universities sometimes do not feel obligated to recognise and compensate community partners for their contributions. When benefits are created for the community, it is often considered something provided altruistically by the university, rather than an obligation arising from the teaching the students receive from the community.

It is important that this aspect of the relationship between the university and the community be properly acknowledged. The community partners' contributions to the students' learning deserves to be recognised in the following ways, at least:

- The syllabus or description of the Service-Learning subject should identify the community partners and in what way they contribute to the learning of the students. This is the approach taken at PolyU.
- The community partners should be aware of the contributions expected of them. The project is likely initiated by the university, which has a much better understanding of the desired relationship and related issues. The community partners may not be very knowledgeable of the concept of Service-Learning and may not have a clear understanding of the relationship, the expectations, and the capabilities of the students. It is the responsibility of the university to help the community partners become aware of these issues, at the least so that the community partners can play their role effectively. It should also be done for the sake of fairness and justice. Both sides should have a full understanding of the relationship.
- How are the community partners compensated for their contributions? Most likely it is in the form of benefits for the community generated by the service projects carried out in the subject. The efforts contributed by the community partners may not be directly comparable with the benefits generated, since they can be very different in nature and substance. However, the two should be broadly comparable for the relationship to be fair to both parties.

The relationship between the university and the community partner is like that of a contract between two parties. The university (and its students) provides a service to the community; in return, the students learn from the community. The community provides a service to the university, by teaching the students; in return, the community receives certain benefits from the service provided by the students.

In practice, this recognition rules out certain types of projects.

- Projects of little to no benefit to the community, whereby the students may learn a lot from the field work and experience, while doing nothing for the community. The community receives nothing in return, after spending time and effort in interacting with the students. The students may write a report and organise events to publicise their experience and the community, but the real and practical benefits to the specific community partner are minimal. Even if the publicity does bring some future benefits, in the context of the wider community of which the current community partner is a part, it may still be grossly unfair to the current partner, who may or may not fully grasp the reality of the situation, and who may enter the relationship without full understanding. Often, in such projects, it is claimed that the community benefit from the care and love shown by the visiting team. Generally, however, such claims greatly inflate the significance and true impact to the community partner.
- Projects in which there is a high possibility of failure. This can be due to poor preparation, a very high level of theoretical knowledge possessed by the students which is not matched with commensurate practical skills and humility, poor understanding of the issue, or unrealistic project time allocation and planning. Students can still learn a lot from a failed project, sometimes even more than from successful projects and so a failed project can still be very valuable to the university and its students. However, the benefits to the community are minimal, often even causing loss or damage, when the community puts in time and effort, making preparations for a project which cannot be completed.

To be more conducive to a long-term, sustainable relationship, the power relationship between the university and the community partner belongs on a more or less equal footing. The roles and responsibilities of both sides need to be clearly understood by both sides. When both sides are fully aware of their roles and responsibilities, there is much less chance of misunderstanding, unequal power relationships, or even exploitation, either intentionally or unintentionally. †

Chapter 12

Looking Forward

We have come a long way since PolyU decided to incorporate academic Service-Learning into its education programmes as a core component. Starting from nothing in 2010, at the time of writing (2024), we are now offering more than 60 Service-Learning subjects to over 4,500 students each year.

Service-Learning has survived the onslaught of the coronavirus pandemic, easily the greatest challenge we have faced so far. Service-Learning is all about human interaction. Person-to-person contact makes the interaction immediate and intimate, engendering empathy and compassion, and ultimately cultivating a sense of responsibility. However, at one point, with travel outside Hong Kong out of the question, all direct personal overseas contacts were cut off. It was not until three years had passed before we could resume offshore travelling for Service-Learning. Even in Hong Kong, we were able to resume face-to-face contact only on a relatively small scale, taking great care to protect everyone involved. Tremendous changes had to be made for Service-Learning to survive, with much of the interaction having to move online. Yet Service-Learning not only survived, it expanded to accommodate an increasing number of students. Many new forms of service were tried successfully, such as completing engineering projects remotely, opening new possibilities and opportunities. That is testament to the tremendous human spirit in general, and the power of the Service-Learning pedagogy in particular. Difficulty is sometimes indeed the mother of invention. Post-COVID, we are eager to explore the wide range of potential ways we might combine online and face-to-face services.

We have learned so much in the intervening years. We discovered that Service-Learning is an effective pedagogy not just for motivated, elite students in small groups, but rather that it can also work for large classes of students from all backgrounds, even for reluctant participants. The key to programme success is how

we, as teachers and administrators, plan, organise, teach, advise, and support the students. As has been amply demonstrated through experience as well as rigorous research, the key to effective learning is a good experience, and it is primarily the responsibility of the teacher to ensure this. For Service-Learning to make a bigger impact, both in terms of student learning and benefits to the community, it must move from a pedagogy for the elite to a pedagogy for the masses. It can work for those who arguably most need it – students who are not interested, have not been exposed to it, or who would not participate voluntarily otherwise. That understanding is particularly relevant to many universities who are publicly funded, who must cater to large numbers of students from wide-ranging backgrounds and with very varied abilities, many of whom may not be blessed with such resources accorded to many of us in Asia.

We received a lot of help when we first started our service-learning programme. Ten years down the line, we are often asked how we got started, how we put together our programme, and so on. We are seeing many other institutions who are eager to replicate a service-learning programme of their own. As we were helped by others, we wish to pass this on. Therefore, we are sharing our experience with many in the region. At the time of writing, a regional community of practice is being formed, with workshops, seminars, and other activities in the pipeline.

Many of us started with a vision of Service-Learning as a pedagogy in which students apply the academic discipline of their major to serve the community, essentially deepening their academic study by making their acquired knowledge applicable to real-life problems. It is also broadening, in the sense of exposing students to issues beyond the academic, to practical social issues faced by under-served communities. However, we have learned that this view is rather limited. Service-Learning can also be general education, broadening a student's academic exposure to another discipline, teaching a new skill, and bringing a different perspective to acquired knowledge. At PolyU, Service-Learning can be deployed in both discipline-specific (essentially deepening) as well as general education (essentially broadening) modes. In fact, most of our Service-Learning subjects are general education focused, each subject anchored in an academic discipline but open for participation by students from many other, or all, disciplines. We have

learned that it is possible to teach the core skills of a discipline that are needed to carry out specific service projects to students who do not major in that discipline. The positive effects are most gratifying.

There appear to be two broadly identifiable camps in Service-Learning: the “softer” in social sciences and humanities disciplines, and the “harder” in science and engineering disciplines. The projects conducted in the softer camp tend to centre mainly around human interaction, typically training or promotion types of projects where the human interaction is the service. In the harder camp, the core service often involves physical installation, artefacts, and equipment that address a physical need. Human interactions inform the issues, and the testing of the solution; but the core service is technical. The contrast between projects from these two camps can be seen across the disciplines within a single university, as well as being visible on the worldwide stage. The two camps even organise and attend different conferences and publish in different journals. This is not to say one is the better pedagogy. It is more likely that disciplines choose and develop variations of pedagogies that suit the nature of the discipline. Whatever the distinctions between the camps, cross-fertilisation has proven to be fruitful and beneficial.

Cross-fertilisation can take place on multiple levels. Students from the social sciences can benefit from taking a Service-Learning subject in engineering, learning to approach problems with a more deterministic, mathematical mindset; and picking up some useful practical skills such as how to use a screwdriver or electric drill properly. Conversely, engineering students can take a humanities Service-Learning subject, learning to read body language more effectively and pay more attention to complex human aspects of civil society. More intentionally, teachers from different camps can collaborate on projects that require multiple disciplines working together in order to provide a more comprehensive and effective solution to a problem. Time and again we are reminded that an ingenious technical solution achieves nothing if the community is not persuaded of the longer-term benefits and if the financial and social infrastructure is not in place to support the technical solution. Alternatively, to assess the impact of a science-based service project, field impact studies based on social science principles can yield insights beneficial to all.

We have made tremendous efforts to not only validate our programme but also research it so as to gain insight into the pedagogy, so that we can continue to improve. Initially we applied methods from the research literature, typically using classical quantitative and qualitative methods to analyse data reported by students, teachers, and other stakeholders. Gradually, we have begun to apply more computational methods, such as data mining, which are beginning to yield new insights that encourage us to explore deeper and more widely. We must be careful, however, not to see patterns that are simply fleeting artefacts of the data rather than persistent and significant trends, but we have seen enough to be convinced that computational methods may bring new and sharper insights. We are also beginning to use more teacher academic assessment data, together with self-reporting by the students, and other observations. The combination of a wider range of data, with the newer computational methods of analysis looks promising and exciting.

We have learned that teachers are at the core of Service-Learning. The service and the learning are carried out by the students, but they must be taught and guided by the teachers. Teachers must be properly trained and supported for Service-Learning to succeed. Students come and go, with most students taking one subject and then moving on. It is the teacher who carries the subject year after year and continues to develop and improve it. The desired long-term relationship between a university and its community partners is not maintained by the students; rather, it is the teacher who initiates, develops, and maintains that relationship. As a university grows, it is the teachers who embody the culture of civic engagement. From this point of view, the teachers are generally not sufficiently recognised, supported, and nurtured for the contributions that they make. We have much work to do in this area.

Starting with nothing, we have developed a sizeable, credible Service-Learning programme for our undergraduate students. It is recognised across the campus and encouraged by the University leadership as a distinctive feature of PolyU education. However, there are many areas in which Service-Learning has not yet made strong inroads. Service-Learning is not yet available to taught and research postgraduate students. There has been significant research into the pedagogy of Service-Learning as well as its integration into specific academic disciplines, but its potential has

hardly been exploited to a serious extent. We have only just begun to recruit a small number of students from communities that are under-represented at PolyU, such as those from countries in Africa. There is also procurement, knowledge transfer, governance, and many other aspects of a university where civic engagement still has much room for development. There is great potential to do much more.

12.1 Service-Learning Reframed

When we started building our Service-Learning programme in 2010, Service-Learning was, and has generally always been, conceived of as a pedagogy for academic teaching and learning in which service and learning are integrated to achieve important outcomes in civic education. We have come a long way in that direction in the 10-plus years since, as has been described in some detail in this book.

Along the way, we have also discovered that Service-Learning can be much more than our initial conceptualisation. In the first place, Service-Learning can help us change from a relatively fixed and closed mindset to one that is more fluid and open. Normally, academics teach a fixed set of subjects within a clearly defined syllabus. Occasionally, we have an opportunity to revise the syllabus or design a new subject, depending on developments in our discipline. In Service-Learning, we have many more reasons and opportunities for change—opportunities to look for suitable social issues and needs that we can address with our disciplinary expertise. Surely, once we get started, one can still choose to teach the same Service-Learning subject and assign the same project to students again and again. However, there is a very wide range of social issues, communities and partners to work with, and solutions to adopt. Real-world problems are rarely clearly defined and easily fixed. They challenge us to come up with innovative solutions and refine those solutions as we gain experience.

Service-Learning also challenges us, as teachers and students, to ground academic knowledge in the real world, especially when trying to solve real-world problems.

Through trying to develop solutions, students achieve a much better sense of how their chosen discipline in specific, and their university education in general, is relevant (or not) to the world. Often, after taking a Service-Learning subject, students come back and say they are now more motivated to do well in their studies, so that they can better tackle a community's problems, and provide more effective solutions. Others become most purposeful in their studies, understanding more clearly how their academic knowledge is relevant to the real world. While learning to be better citizens, they also become better professionals in their own disciplines.



Figure 12-1. Service-Learning reframed.

Service-Learning complements leadership education perfectly. Leadership learned in the classroom is best practised in the field through Service-Learning, while Service-Learning needs students with leadership competencies. In this book, we have demonstrated how a purpose-designed subject integrates Service-Learning with leadership in a global context. Service-Learning can be integrated with leadership education in the local as well as international context, within a single university as well as across institutions; and the possibilities go way beyond that.

Service-Learning naturally complements and strengthens cross-cultural learning and internationalisation. Service-Learning is, by definition, cross-boundary, where the boundaries can, for example, be related to age, physical ability, language, ethnicity, nationality, or economic status – making it cross-cultural in some form or other. This is evident in almost any Service-Learning subject, whether it be young adult college students serving the elderly, or Chinese students serving migrant workers from The Philippines and refugees from Sri Lanka or the Congo. It is also well known that big cross-boundary challenges are correlated with strong learning gains in Service-Learning. Hence the increasing popularity of international Service-Learning, which,

while surely being resource-intensive, in terms of finance, personnel, and risk management, has obvious and potentially very significant impact.

Service-Learning, particularly international Service-Learning, both needs and strengthens international collaboration, between universities as well as between universities and non-governmental organisations. There must, however, obviously, be mutual benefits for a collaboration to be sustainable. These relationships can become platforms for other forms of collaboration such as student exchange, collaborative teaching in other subjects, and research. Examples abound in this book.

Service-Learning can stimulate cross-discipline collaboration in teaching and research. Real-world problems are rarely one-dimensional. Poor health, unclean water, poor diet, poverty, and lack of jobs are not clearly separate, discrete issues but rather highly correlated. A civil engineering team may work on filtration to provide cleaner water, a public health team may then assist the village in improving sanitation with the cleaner water, a food safety or hotel management team may then advise on a healthier diet, a business management team may be able to help the villagers to set up an income-generating business to make the projects sustainable, and so on. The issues also provide strong motivation for the undertaking of relevant practical research. Purposeful coordination and planning are needed to make it happen, but the need and potential are easy to visualise.

Service-Learning can be a great unifier for the campus. A successful Service-Learning project often requires collaboration and support from multiple departments: the academic department offering the specific subject, the academic departments within which the attending students study their major, the medical clinic providing advice for the location/community/country where the students serve, the finance office helping to finance the project/trip, the alumni office helping to raise the funds needed to support equipment/learning materials/travelling expenses, the alumni providing the actual funding, and the administrators orchestrating the resources needed to make this happen. A great Service-Learning team can galvanise a campus just like a successful sports team.

Of course, none of this comes automatically or inevitably. These are opportunities and it is up to us to take advantage of them. There are Service-Learning teachers who found an issue, developed a project, built a subject, and continue to teach the same project year after year without much change. The subject is not without impact – each year a new cohort of students learn from the same subject/project, creating more impact, but it is also an opportunity lost. In this book alone, there are numerous cases where teachers in a Service-Learning subject drill into a social issue and develop increasingly effective solutions, enriching the learning experience for successive generations of students, building up a strong bond with the community, and expanding their project into a variety of related projects. Some have started small but gradually expanded into multiple teams for different sites. Others expand into multiple subjects focused on related but diverse topics or communities.

Similarly, there are students who take one Service-Learning subject and consider the job done. However, there are also many who graduate and go on to incorporate social responsibility into their profession, or work as a professional for non-profits, or become a teacher of Service-Learning in their chosen discipline, or build start-ups aiming to achieve a public good utilising their professional expertise.

From reading this book, it should be clear that we found many exciting opportunities for cross-cultural and international collaboration. These are very exciting for many students and staff alike, although also very challenging in many ways and perhaps not everyone's choice. However, they are also very stimulating, eye-opening, hugely satisfying, and potentially life-changing. Many of the students involved in them have since graduated to move abroad, to study, to work, to get married, and so on. We have encountered numerous individuals and groups who are eager to connect. In some cases we are primarily learning from them at the beginning but the relationship gradually changes into a more balanced, reciprocal one. In some situations, our partners are initially learning from us; but in time, this also changes into a more well-adjusted, two-way relationship. In many cases, we create projects, pedagogies, subjects, and programmes together.

We have found leaders everywhere, at all levels. At first these are usually



subject leaders and project leaders. Then there are students who come up with ideas, or who stand out because of what they say or do, questions that they ask, or challenges that they pose. Administrators who ask questions and make demands or challenges. All of these are the drivers of change and innovation.

Hence, Service-Learning is becoming much more than just integrating service and academic learning to achieve civic learning. A reframing of Service-Learning is required, from it being an end in itself into a tool that can enable other important objectives for higher education. Innovative universities are already taking steps to realise the potential of such reframing.

To summarise, what starts out as a pedagogy that integrates service with learning to teach civic learning can be reframed as a platform for:

- changing from a closed, fixed mindset to an open, fluid mindset – for both staff and students
- enhancing students as professionals in their chosen discipline
- complementing cross-cultural learning and internationalisation
- complementing leadership education
- strengthening international collaboration
- stimulating cross-discipline collaboration
- unifying the campus

Imagine a village in a sub-Saharan country, with poor energy resources, lacking in clean water, where the farming technology is low, and with people living in poverty with poor infrastructures for supporting health. Multiple Service-Learning teams are sent to the village to work on complementary projects. One team sets up solar panels for electricity; one sets up water filtration systems for cleaner water, partly facilitated by the electricity generated from the solar panels; one team helps the farmers cultivate small vegetable gardens to improve their diet; and one team improves the cooking stoves to conserve fuel and reduce pollution. The teams comprise students and teachers from universities from several different countries working together. Funds are raised from the several campuses and their

alumni. This village is actually an offshore base set up in collaboration with a local university, which is developing their own Service-Learning programme, partially using the base for its own projects beyond this one. The joint projects are run annually at the base. Some of the teachers involved were trained previously through a teacher development course associated with an earlier cohort. The students prepare for the joint project by participating in global classrooms and a virtual world simulating much of the landscape of the village with augmented and virtual reality for months prior to arriving on-site. After the teams return home, they continue to support through interacting with the village community online. The village base is replicated in other countries, hosted by other partners...

This is not a dream. Parts of it are already in place, just not yet on this scale. It is also not the end, just one more step forward in the reframing. The story does not end; it continues.



Epilogue

The COVID-19 pandemic forced an essentially complete halt to direct human contact beyond each person's own family, starting from early 2020. Service-Learning at PolyU could not and did not stop completely. We worked tremendously hard to continue, albeit in a severely curtailed form. Some courses had to be cancelled, but most moved online. Some subjects actually expanded in capacity in order to compensate for the subjects that were cancelled. By early 2022, fortunately, the situation began to show signs of improvement and social distancing measures started to ease with travel restrictions becoming slightly less severe. In-person service projects started to resume. We also took small, tentative steps to resume international Service-Learning projects.

In June 2022, a small team went to Vietnam for a STEM-related service project. They were very cautious, doing everything they could to ensure the safety of the team: vaccinations, extensive testing before, during and after the projects, wearing masks all the way, frequent hand-washing, and so on. They came back safely and, after seven days of quarantine at a hotel, went home. In July, another team went to Rwanda to install solar panels, taking similar precautions, going through the same hotel quarantine procedures, again returning safely. The success of these two small-scale test cases gave us the confidence to plan on re-launching international Service-Learning on a much larger scale in 2023.

The Rwanda project of summer 2022 gave us valuable insights into the similarities and differences between online and in-person Service-Learning. In the summer of 2021, as reported earlier in the book, we could not travel to Rwanda but, instead, carried out an audacious solar panel installation project online, half-building 200 solar panel systems, shipping them to Rwanda, training volunteers in Rwanda online, and guiding them online to install the solar panels in the field. We

encountered many obstacles and the systems installed might not have been of the highest quality, but they were functional and did provide the electricity needed. This demonstrated that online Service-Learning can work, even with projects involving tangible, challenging engineering projects, if they are planned and executed with care. In summer 2022, we were able to send a small team of teachers and students to Rwanda, provide face-to-face training for the local volunteers, and install the solar panels together with the local volunteers, with a slightly larger number of solar panel systems. On the face of it, the online and in-person projects achieved similar results but there were some important differences.

When, in 2022, we checked systems installed in 2021, we noticed that there was some sloppiness in the workmanship, which we did not discover while observing their work remotely through the lens of the camera online. We noted similar issues when we observed the local volunteers physically working alongside our students in 2022. There are limitations on how much can be observed online, an issue we were partially aware of at the time but unable to do much about. Some issues became obvious only when we were able to physically be on-site and compare the two modes of operations.

In the planning for the 2021 online project, we had been concerned about whether the local volunteers were able to carry out the installations without us physically being present. Hence, we made simplifications in the design of the systems and minimised situations where the local volunteers would have to make alternations to suit the local environment. Working out how to simplify the process for easier execution and minimise possibilities of error was a challenge and the consequence was that, in order to make them easier to implement, the solutions became more standardised. The down-side of this was that the solution may not have been the most efficient and not necessarily best-adapted to the needs of the individual households.

For the 2022 in-person project, since we are physically on site, we were able to experiment with more complex solutions, even those which might require on-the-spot decisions and changes. For example, a professor from Electrical Engineering was able to test a couple of "mini-grid" solutions. These are relatively larger systems, with multiple

solar panels (100-plus watts) and batteries, controllers, and lights serving multiple households in close proximity, or one very big household with a large number of rooms requiring higher voltages, much longer cables, and more complex wiring. A mini-grid enables multiple households to share the solar panels and batteries, making the use of electricity more efficient and lowering the costs for everyone involved. However, it is much more challenging to design and construct.



Figure E-1. PolyU students and local youths working together wiring up a house for lighting, powered by solar panels, in Rwamagana, Rwanda. This photo was taken in 2022, the first time we could go overseas again since the pandemic. Parts of the walls were finished with a smoother layer of mud, while other parts remain bare mud bricks, or rough layer of mud, which peels off continuously.

While we were there in person in 2022, we were also able to observe the installation much more closely, from multiple perspectives. We could then provide much better feedback and training to the local volunteers. We spotted mistakes such as incorrect connections, and less-than-perfect workmanship including wires that were not properly attached to the walls, which may cause the circuit to perform poorly or even fail. We were then able to train the local volunteers to improve their skills and understanding. This kind of just-in-time education is very difficult to do online.

All in all, we were able to gain valuable insight into the comparative advantages and disadvantages of carrying out very similar projects in two different modes – online versus in-person – in terms of the execution of the service, the result, and the impact on the community. One of the biggest differences between the two approaches is the irreplaceable personal experience for the students of them being there in person, something online service has no hope of reproducing. Thus, when the pandemic started to ease, by the middle of 2022, we jumped at the opportunity to (gingerly) restart in-person international projects. However, the experience of pursuing online service for two years convinced us that online service does have its advantages and hence a role to play, even when traveling and in-person services are once again feasible. One possibility is to offer online service projects in parallel to in-person projects, to provide a richer set of options for the students. Another is the integration of the two, for example to use online interaction with the community in the preparation phase, carry out the service project in person, and then conduct the follow-up actions (such as maintenance and problem-fixing) online.

As we have discussed earlier in this book, Service-Learning can be a platform to achieve important learning objectives not immediately and obviously associated with Service-Learning, including internationalisation. This point is increasingly recognised at our university. In 2022, it was decided by the University that all undergraduates (approximately 5,000 students per year) would be provided with a significant learning experience offshore – away from Hong Kong. The means by which they do so include academic exchange, offshore placement, and Service-Learning. Indeed, half of our students (approximately 2,500-3,000 per year) are targeted to achieve their non-local learning experience via Service-Learning. That is a major reason why we acted so quickly to restart in-person international Service-Learning as soon as international travel once more became feasible. Prior to the COVID-19 pandemic, we were sending about 1,000 students on offshore Service-Learning projects each year, with roughly 600 going to Mainland China and just under 400 to foreign countries. The new target means we have to more than double the largest number ever achieved in a year.

Jin-Guang Teng, Chair Professor in Civil and Structural Engineering has been President of PolyU since 2019. In 2022, under his leadership, PolyU recognised the contribution that Service-Learning makes to other strategic objectives such as internationalisation. It was decided to take Service-Learning at PolyU to the next level, setting a target for all undergraduate students to have at least one non-local learning experience by 2027/2028, with at least half of such in Service-Learning. The University has since allocated a significant amount of funding to support this new imperative.

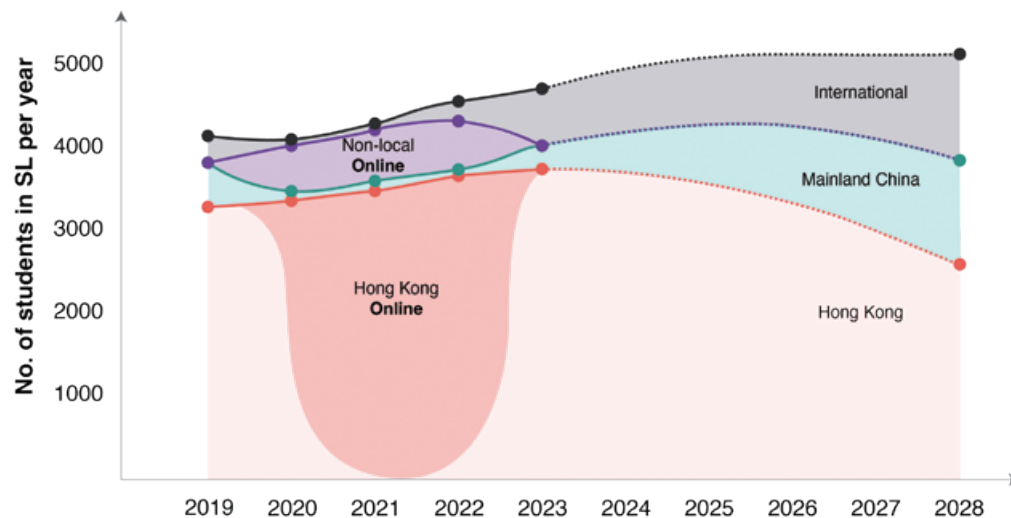


Figure E-2. Targets for non-local Service-Learning.

The new target is in reality even more challenging than doubling the numbers. The pandemic completely eliminated in-person non-local Service-Learning for two years and so we have been re-starting from nothing. In the meantime, we have lost some of the teaching and supporting staff who had relevant experience, due to retirement and other reasons. There have also been significant changes among our offshore partners; some did not survive the pandemic and the passing of time, while the life of non-profit organisations in developing countries are often not easy to start with. Hence, there is much that we have to restart, rebuild, and repair due

to the damage wrought during the pandemic years. On top of that we have to more than double the capacity for offshore projects.

Fortunately, we were not idle during the pandemic. While practically all services moved online, we continued to cultivate new partners not only in countries where we had already been operating, such as Vietnam, but also in countries where we did not operate before, including India, South Africa, and the Philippines. We also have to restart projects planned prior to, but subsequently interrupted by, the pandemic – in countries such as Tanzania. In the near-future, however, the Asia-Pacific region, closer to home, will remain a focus area for us, for practical reasons of established relations, as well as limitations of time and other resources.

There are some factors that make international Service-Learning particularly valuable for internationalisation at our university. The bulk of the undergraduate population is Chinese students from Hong Kong, with Cantonese as mother tongue. The second largest group is Chinese students from Mainland China, whose mother tongue tends to be Mandarin (Putonghua). We have also significant numbers of students from foreign countries that include Malaysia, Indonesia, Thailand, Korea, and Kazakhstan, with their own specific mother tongues. For many reasons, students with the same language and culture tend to stick together and encouraging them to intermingle has long been a challenge, as in many other campuses around the world. When these diverse groups of students serve in Hong Kong, the Cantonese-speaking Hong Kong students, obviously, have a big advantage, as do the Mainland Chinese students when serving in Mainland China. When these students serve in a foreign country such as Rwanda, however, they are all equally linguistically and culturally handicapped, none of them speaking the local language, Kinyarwanda, or Swahili a language popular in East Africa which many people in Rwanda speak. Hence, it is a truly level playing field for everyone. The intense work involved in the project requires them to collaborate closely with each other; many teachers also intentionally group students from different countries and majors together. The experience of living and working together intensely for a common cause, even if it is only for a week or so, has forged many long-lasting friendships.



Figure E-3. Celebration at the conclusion of the Solar Panel Project in Rwanda in Summer 2023. Hundreds of village people came out to celebrate, sing and dance with our students, as well as local government representatives, the mayor of Rwamagana, and representatives from the Chinese Embassy in Rwanda.

At the national level, we are seeing stronger interest and encouraging development in Service-Learning in Mainland China, in recent years. We have been involved in organising two national conferences on Service-Learning, one prior to the pandemic, in person, in 2019 and another one during the pandemic, online, in 2022. There has been an marked increase in the number of presenters and attendees, as well as the quality of the presentations. There is also increased collaboration among universities.

At the international level, we took the lead in the setting up of a community of practice (CoP) for the Asia-Pacific Region, under the umbrella of the IARSLCE, International Association for Research on Service-Learning and Community Engagement, while the pandemic was still raging. The CoP has been organising webinars, so that the members can get to know each other and each other's work, as a platform for sharing of experiences and research ideas, and to work on issues of particular interest to us in the region. There are signs that this is leading to more cross-institution, cross-country collaboration across the region. At the time of writing, plans are being made to organise a regional or international conference together.

In the meantime, the primary and secondary school sectors in Hong Kong are demonstrating stronger interest in Service-Learning. Even though our main area of responsibility remains in the tertiary education, we feel an obligation to help where we can. There is also consideration of (future) self-interest since, if the K-12 sector can provide a proper introduction to Service-Learning to the students who will eventually enter university, we can conceivably challenge those students to do more when they subsequently enter university. This is one of the reasons we have embarked on a major capacity-building project to train more teachers to teach Service-Learning at secondary schools. The response has been very encouraging – the programmes have already been over-subscribed.



Figure E-4. Training workshop for secondary school teachers on the teaching of Service-Learning.

As a practical result of all these developments, Summer 2024 saw the successful execution of a major project in Rwanda, Habitat Green. Two teams from PolyU installed solar panels, joined by three other teams: one comprising students from the member universities of the University Social Responsibility Network (USRN); the second, high school students and teachers from Hong Kong; and the third, PolyU staff and alumni who are interested in knowing and discovering service-learning. Yet another team tackled a new project on textiles and fashion, in an attempt to marry the cutting-edge expertise that PolyU possesses in fashion and design with traditional African textiles and culture.

All the planning for Habitat Green brings out one of the distinctive characteristics of Service-Learning at PolyU. Many Service-Learning programmes are designed for elite students, strongly motivated, with the resources (time, finances and skills) needed. This is particularly true for challenging projects in faraway places and there are two main reasons for it. Many educators believe that Service-Learning should be voluntary, and it is also easier to design and manage projects for students who are motivated and have the necessary resources. At PolyU, we do cater for these elite students but we also make Service-Learning accessible to all other students; in fact, unusually, we make it compulsory for all undergraduate students. The primary reason is that we believe Service-Learning benefits all students and the world needs leaders at all levels who care about the common good. The research tells us that the smartest in government and industry do not necessarily have similarly strong interest in the common good. Service-Learning has demonstrated benefits in nurturing students with a stronger commitment to social responsibility and so if we can nurture more university graduates with a stronger interest in the common good, this can create a bigger impact in society, as opposed to leaving Service-Learning to the small number of elite students. This is the fundamental reason behind our push for Service-Learning for the masses.

Needless to say, this objective creates considerable challenges. One of the most obvious is that our teams can be big, quite a bit bigger than what many people are used to, even for challenging projects in faraway places. For example, our summer 2024 Habitat Green project comprised approximately 100 staff and students from PolyU alone, before counting the non-PolyU teams from the USRN and secondary schools. Relatively large teams were also sent to Cambodia and other countries. It is hugely challenging to find partners and project sites that can accommodate such large teams. Just transporting, feeding, and finding accommodation for such large teams is a major logistical challenge, particularly in the poorer communities where the need is the greatest. However, the benefits are also obvious. With larger, multi-national, and multi-talented teams, more can be done, and more students and community recipients can benefit. For this reason, we are willing to work hard, very hard, to make it happen.



Figure E-5 Vice President (Education) Kwok-yin Wong celebrates with students and teachers at the conclusion of the Habitat Green programme in Rwanda in Summer 2024.

While the programme is expanding in scale, spreading in breath, deepening in impact, and advancing in research-driven pedagogy, we are also seeing some of the seeds from our earlier efforts bearing fruit in pleasing ways. One of the students involved in some of the challenging early projects in Cambodia and Rwanda went on to obtain a PhD from one of the very best universities in the United Kingdom. While deciding where to start his academic career, he helped us train the students for the Habitat Green project in Rwanda. Another student from that early period went on to earn a PhD at another prestigious university in the USA and returned to Hong Kong as an assistant professor at a local university. He is building a team from his university to collaborate with us. Yet another former student is now working in a senior position in corporate social responsibility in a prestigious enterprise. She managed to secure a donation of valuable equipment for Service-Learning projects at PolyU. We also have many former colleagues now working in other institutions

with a leadership role related to Service-Learning. Such are some of the more tangible fruits of the work.

A decade ago, when PolyU embarked on its Service-Learning programme, we had little experience, but with the audacious objective to provide all our undergraduate students with a Service-Learning experience, to enhance their sense of social responsibility. At the onset of the second decade, we are much more aware of the transformational potential of Service-Learning. We are determined to work hard to further realise that potential, at PolyU and beyond. †

