Service-Learning as Pedagogy for Transformation of Students' Learning

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Abstract. Service-Learning is a powerful pedagogy to transform students learning confidence and determination to make good use of their knowledge through empowered services experience in authentic situations with real clients. Teachers use this pedagogy to help students explore an aspect of social issues and take action to relieve the situation through partnership with agencies outside the University. The current study hit new insights about students learning evaluation that was made possible because of inputs from the collaborating Service-Learning partners. The triangulations of quantitative and qualitative methods contribute effectively in evaluating the students' learning in social service. Service-Learning results in elevated self-evaluation and confidence in all generic skills and attitude changes measured through continual formative assessments though it does not promise immediate conquer over the control group in summative assessments. Discussions have been made to reflect the different roles of summative and formative assessment that Service-Learning could be the catalyst of learning as the tipping point for successful community network construction.

Key words: Community development, cross-sector partnership education, poverty, service-learning, student development

1 Introduction – The practice of service-learning at Lingnan University

Service-Learning (SL) is seen as a pedagogy that can enhance students' learning. The Office of Service-Learning (OSL) and the Department of Sociology and Social Policy at Lingnan University, Hong Kong collaborated with a philanthropic organization called Social Venture Hong Kong (SVhk) to organize a SL project called 'Playtao Foreverland Program' (Playtao) from September to November 2011. It was expected that our students would improve in academic knowledge, personal development through this project, also adopt a 'giving' culture and ready to accept social responsibility. Fifteen Lingnan University students joined the project, worked with SVhk to design and conduct

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workshops, homework tutorials and extra-curricular activities for 62 primary students from low-income families, aiming to widen their horizons and better their learning opportunities. This study aims to i) evaluate students' learning outcomes through a mixed method; ii) find out the success factors for good SL project partnership.

2 Service-learning as pedagogy

Service-Learning (SL), as pedagogy, is a teaching and learning method that integrates academic knowledge with practical experience [1]. The key to success in SL is repeated reflections. Through arduous contemplations, students examine academic theories versus conflicting single viewpoints from the field critically in the light of their own service experience. Through hands-on service, SL-project provides a training ground for students to perform and at the same time demonstrate their personal life skills and technical abilities; meanwhile uncover individual limits and eventually emerge with greater self-confidence once these inadequacies been overcome. Many of those transformative lessons could not be taught in textbooks or classes.

2.1 Service-learning is experiential learning

In the pedagogy arena, SL is a kind of experiential learning [2] in which a learner gains concrete experience by doing, absorbs personal experience to internal information matrix, connects information relationships to knowledge network, transpires knowledge into abstract concepts, and then generalizes the concepts into knowledge insights and applies them to a similar situation later, with modification if needed. The SL learning session begins and ends with real-life experiences, but authentic fine-tuning will continue throughout life. The sustainable and long-lasting impact of holistic learning is the ultimate goal of education. With experiential learning endeavors, modern education is no longer limited to scholastic undertakings, but embraces 'whole-person' development, providing young people with wider exposure beyond that the school and family can offer [3]

2.2 Service-learning mimics problem-based learning

Going beyond the school, University-partners SL joint-ventures mimic problem-based learning at operation level of specific untried authentic reality. Problem-based learning (PBL) is recognized as a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem. Given a goal to accomplish and the freedom to choose whatever ways to achieve the goal, students learn through exercising thinking strategies and applying domain knowledge. The journey of mastering projects anew under unfamiliar circumstances easily hit incidents of disappointments, surprises, and intermittent failures. Expectations mismatch leads to personal internal disturbances, value conflicts, emotion dip, ego confusion, and finally the realization of needs to seek help or otherwise, with counselling from supervisors or project coordinator, a deeper understanding of self. SL reflections urge SL participants to revisit knowledge misunderstandings and skills deficits, to overcome frustrations, psychological stress, motivation decline, etc., and eventually to climb out of depression in the self-efficacy valley, to experience healing and to acquire relevant all-round skills that ultimately integrate with existing capacity into comprehensive abilities for good life-long civilized citizenship. Depending on the locus of practice, SL always function one way or another in accomplishing both academic and personal development goals.

2.3 Service-learning appraisal

As early as 2005, SL projects were introduced to academic courses at Lingnan University to reinforce service and learning output. A set of six outcome indicators were developed [3–5] to assess the impacts of SL programs on students participating in SL. The six outcomes are Subject-related Knowledge, Communication Skills, Organization Skills, Social Competence, Problem-Solving Skills, and Research Skills. Researches have always been conducted at OSL to assess students' changes in the six SL indicators after participating in the SL programs. Those results were collected from a wide range of the SL student population, covering different programs and a variety of partners. The full load of dynamic experience gained is too much to be captured, yet it was still possible to catch valuable snapshots for program improvement.

2.4 Anticipated learning outcomes from SL

SL aims to foster knowledge enhancement. "Service" and "Learning" are of equal importance both changing the community for the better and enhancing student learning outcomes. Academic performance is one indicator, of which the course grade and grade point average (GPA) measures SL effectiveness. Rationalized upon the theory of experiential learning through direct or indirect services, SL generates positive impacts on academic performances, manifested by students' greater understanding of course materials and better academic outcomes. Services promote direct connection with society, which in turn enable students to better recognize the usefulness and importance of the course materials. In return, students are encouraged to explore a wider and deeper level of knowledge. This reciprocates with applications and amplifies their motivation for learning, and consequently sustains their passion to serve in various roles and to learn life-long [6]. Actualizing what is learnt in the classroom to authentic scenarios is itself an important part of the overall understanding of the academic concepts.

During any SL project implementation, students are encouraged to use their talents and creativity, and diverse skills to organize activities in response to the need assessment on service targets from their own observation. Bringle and Steinberg [7], and Lee [8] has identified diverse student outcomes for SL programs, apart from academic improvements. They identified that SL can be an effective vehicle for preparing young people towards active citizenship, and increasing a sense of social responsibility.

The experiential learning journey starts with engaging students emotionally in the community, by having a personal connection with people, figuring out their needs and situations in a complex real-life context, gaining greater understanding, and at the same time breaking down stereotypes and learning to 'walk in other's shoes', hence developing empathy. SL experiences also help students become more compassionate and sensitive towards others, which is indeed an important first step towards engaging students with social issues [7]

3 Development of the SL joint-venture project

3.1 The identified social issue: poverty limits education opportunities of the poor

Poverty issues caused by the change in social structure and the wider discrepancy of income allocation prevail in Hong Kong. According to government statistics, over 1 000

000 citizens live below the poverty line in 2011, of which 350 000 were children [9]. Bouffard et.al. observed that children from low-income families were less likely to join out-of-school programs in fear of financial burdens [10]. If they did participate, they attended less frequently than their middle-class counterparts. Likely situation as such limits contacts and exposures to the world beyond their home and school, and hence shrinks learning opportunities available to this group of children. Reduced exposures might eventually affect their learning progress, and consequently reduce their competitiveness in further education or even career opportunities. The Harvard Family Research Project (HFRP) found that a greater frequency of participation in after-school programs was linked to higher school attendance rates, higher school achievement, and lower rates of school failure [11]. It is therefore our hope to level up the learning opportunity platform, to offer after-school programs at affordable costs as one remedy to narrow down the educational gap between the affordable and the poor.

3.2 The Playtao initiative

The Playtao Foreverland Program (Playtao) was initiated to tackle the social gap behind the downward spiral generated from the income and education inequality. The initiative was a school-based after-school childcare and education program targeting children from low-income families. It was a pilot program run by Social Venture Hong Kong (SVhk) [9], partnering with local schools, so as to expand children activities exposure. Activities were designed to empower children, by raising their individual skills through multi-disciplinary extra-curricular learning, so as to equip them with all-round soft and hard skills, enlighten their scope of vision, and for them to open new doors to education and career opportunities in the future. One side-effect through this initiative was that it served to relieve poverty by occupying those children in extra-curricular time, thus freeing up their parents, enabling them to pursue employment opportunities which then better their family income.

The Playtao program emphasized campus-based, small-class participation. Working with schools enabled children to engage promptly in new activities within their familiar environment. Cost economy was attained through fully utilizing the school facilities and material resources. Children participating in the program were charged a nominal fee that was affordable for low-income families. With whole-person development set as an objective, the program strikes a balance between learn and play, in four modules:

i)   Learning Capsule for academic support;
ii)   Playtao Playground for extra-curricular activities;
iii) Growth-in-Action for life education; and
iv)   Community Channel for social exposure.

3.3 The 4-parties university-partner joint-venture

Descriptions about the four cross-sector partners and their respective roles were listed in Appendix One. At OSL, our SL projects usually involve one teaching department at Lingnan University, the Office of Service-Learning (OSL) ourselves and one partner agency, here it is SVhk the NGO; the fourth knowledgeable extra partner being the service recipient school, and they have the expertise to supervise progress and to evaluate our program outcome on behalf of our direct service recipients, the young children.

During the first semester of 2011 to 2012, the Department of Sociology and Social Policy, and OSL first liaised with SVhk on the Playtao Program. Fifteen students from the Lingnan class of SOC327: Social Welfare and Social Problems of Hong Kong joined the program. They offered tutorial support, after-class activities, and Lingnan campus visits for children from Primary Three, Five and Six from Yan Chai Hospital Law Chan Chor Si

Primary School. The school is located also in Tuen Mun of Hong Kong, the same district where Lingnan University is located.

According to the 2011 population census carried out by the Hong Kong SAR Government, Tuen Mun has a lower median monthly domestic household income (HK$ 18 000) when compared with the whole territory (HK$ 20 000). This school admitted a relatively high percentage of families that receive Comprehensive Social Security Assistance (CSSA), the school was thus selected for Playtao by SVhk. For our Lingnan sociology students, the SL program provides an opportunity to understand closely upfront about the poverty issue, and also the education gap for children from low-income families. To impart a habit of improving program quality the learned scholars' way, research was conducted to assess both the learning intentions and self-confidence of participating children, and to further explore any other educational needs.

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4 Methodology

4.1 Comprehensive assessment

Summative assessments in the form of final written examinations, presentation of a project report or a formal thesis are deeply trusted as the conventional ways of evaluating students' achievement in academic learning. Measuring impact of SL based on final examination failed to produce consistent evidence of predictable attainment edge over control groups. The inadequacies could be attributed to intrinsic constraints of written output presentations; many aspects of experiential learning including SL could not be equitably reflected in most of the selected summative assessment formats.

The multi-facet experiential exposure warrants a comprehensive evaluation of student performance. Four major assessment tools, both quantitative (self-evaluated Pre/Post-Test Questionnaire & Academic Result) and qualitative (Reflective Essay & Focus Group Interview) were used at OSL to collect data from students. These procedures facilitate assessing impact of the program on students' personal development and academic learning in numerical and summative forms. In addition, feedbacks from the agency supervisors were also collected in the form of the Student Performance Evaluation Form and Summative Questionnaire, which then serve to analyze the effectiveness of the program on feeding the learning outcome indicators.

4.2 Quantitative methods

4.2.1 Pre/post-test questionnaire

The Pre/Post-Test Questionnaire is a self-evaluation tool that investigates the general personal development over the domains. The 10-point Likert-scale questionnaire was extracted from the Service-Learning and Research Scheme Questionnaire with eight domains, the first six come from OSL [4] and the latter two attitude impact domains from Amerson [12], and Bernacki and Jaeger [13]. The eight domains are shown in Table 1.

Table 1. Domains of learning in the pre/post-test questionnaire

No.	Domains	Description
1	Subject-Related Knowledge	An understanding of the concepts and knowledge taught in the course
2	Communication Skills	The ability to express ideas clearly and to listen to the ideas of others
3	Organizational Skills	The ability to put tasks into working order and to arrange parts and people into an efficient system
4	Social Competence	The skills necessary to be accepted and fulfilled socially, including interpersonal relations, self-confidence, and social skills
5	Problem-Solving Skills	The ability to recognize the core of problems and to solve problems effectively
6	Research Skills	The ability to search relevant literature, to understand types of research methods and to collect and analyze data
7	Service Mindset	The motivation and intention of students to serve
8	Cultural Competence	The awareness and acceptance of others from different ethnic, national, or economic backgrounds

4.2.2 Academic result

With SL as pedagogy to enhance students' learning over knowledge acquisition, the academic result is definitely one of the best and direct indicators to reflect academic knowledge enhancement. Towards this end, students were divided into an SL Group (Playtao) and a Non-SL Group (Tutorial) as control for comparison. The assessment criteria consisted of two major elements: the continuous assessments accounts for 50 % of the overall distribution, while another 50 % goes to the final examination. The continuous assessment of SL included reflective essays, group report and performance evaluation rated by the agency supervisor. The formative Non-S-L session, the essay, presentation and portfolio learning were continually assessed.

4.3 Qualitative methods

4.3.1 Reflective essay

Amid the SL experiential learning cycle, reflection is one of the vital processes encouraging critical examination of the service experience. In this Playtao project, students were asked to submit a reflective essay, which allowed them to review their experiences on both personal development and academic enhancement aspects and to propose further measures to tackle their own needs and problems.

4.3.2 Focus group interview

Three focus groups were conducted at the end of the program as a platform to encourage those students concered express their opinions about the program, including students' learning outcomes and effectiveness, as well as their feedback on the program structure and content. In our experience, face-to-face interview is an effective method of harvesting feedback.

5 Findings and discussion

The use of different assessment tools reflects different aspects of project outcomes. Through the triangulation of different research methods, this paper provides a comprehensive picture of the outcomes of the whole project.

5.1 SL students have better overall academic result

In this research, the academic result of the non-SL group (28 students) was compared with the SL group (15 students), as shown in Table 2. The total average score of the SL students (69.24 out of 100) is marginally better than the students in the tutorial class (68.21 out of 100) in general. Although SL student performance in exam (30.43 out of 50) was not as good as those in the tutorial control group (33.93 out of 50), SL students performed a lot better in articulating their service experience with their assignments.

Table 2. Average Academic Scores of SL group and non-SL group

	Sample Size	Continuous Assessment (50 %)	Final Exam (50 %)	Total Average Academic Scores (100 %)
Students in SL (Playtao)	14	38.81	30.43	69.24
Students in Non-SL (Tutorial)	27	34.29	33.93	68.21
Difference		+4.52	-3.50	+1.02

Course instructors concurred that final examinations, as a summative assessment procedure, have to guarantee learning achievements in content knowledge, hence involve a lot of rote memory recall information detailed in formal textbooks before rewarding on conventional cases of applications. Direct rote memorization is helpful to score high marks from these questions. Deeper understanding through experiential learning may not be expressed in a compact time-limited written examination. To name just one limitation important to good future citizenship, organization ability in the time-frame magnitude required in SL such as Program Planning could never be assessed in a short final written examination paper, yet it is a good component in Continuous assessment.

Continuous assessments serve to evaluate improvements and breakthrough from a personal level, trace after willingness to dig into the real picture of each case scenario, screen uniqueness from general stereotypes, treasure consistence in effort output, articulation in identifying and solving authentic problems impromptu, which may eventually be summed up as attitude changes and commitment to future good of the community. This is considered a better indicator of efforts, knowledge advancement, articulation in authentic applications, and learning satisfaction independent of memorizing

power. The relatively open-ended formative non-S-L session topical tests, the essays, presentation and portfolio learning absorb SL progress and shine as accumulated better scores.

Collectively, the good performance in the continuous assessment strengthens the argument that SL exerts a positive influence on learning performance. It validates our belief that SL provides a platform for students to put theories into practice, facilitating them to use their knowledgein daily life.

5.2 Self-evaluated questionnaires endorse success of SL, Cultural competence in particular

The self-reported subjective Pre/Post-Test Questionnaire provided a quantitative analysis over the eight outcome indicators of the students' personal development after the SL program. As shown in Table 3, positive impacts were identified in three domains, namely Subject-Related Knowledge (+0.05), Research Skills (+0.01), and Cultural Competence (+0.47). The first two demonstrate marginal edge but is encouraging as SL is a pedagogy that always emphasizes the acquisition and application of academic knowledge, and the last one reflects the ability to work in a team with people from diverse social and cultural backgrounds. However, with such small sample of only 15 subjects in the SL group, testing the results for statistical significance is invalid.

Table 3. Result of pre-post test questionnaires of university students

No.	Items	Average Score in Pre-Test (Out of 10)	Average Score in Post-Test (Out of 10)	Difference
1	Subject-Related Knowledge	6.23	6.28	0.05
2	Communication Skills	5.77	5.65	-0.12
3	Organizational Skills	6.79	6.27	-0.52
4	Social Competence	6.84	6.79	-0.05
5	Problem-Solving Skills	6.89	6.87	-0.03
6	Research Skills	6.52	6.53	0.01
7	Service Mindset	7.16	7.02	-0.13
8	Cultural Competence	7.90	8.37	0.47
9	**Overall Satisfaction**	7.23	6.93	-0.30

Furthermore, there existed also areas with negative results, such as Communication Skills (-0.12), Social Competence (-0.05), Problem-Solving Skills (-0.03), Service Mindset (-0.13) and Organizational Skills (-0.52). While the quantitative differences are not largely significant, the results from other tools are likely to provide us with a more comprehensive understanding of the learning progress.

5.3 Short questionnaire input from agency supervisors granted higher ratings

As a source of data from independent stakeholders, partner agency supervisors were asked to evaluate the performance of our SL students. The agency supervisors monitored

students' performance over the entire project period; they evaluated students' performance as more than satisfactory (shown in Table 4). Certainly, the primary students were benefited from the Playtao program but the effect on primary students was not the focus of this paper. In general, they rated students' work favourably through the Summative Questionnaire (Appendix Two) and Student Performance Evaluation Form (Appendix Three). SL students' efforts were cherished to the agency as well as the respective community.

Table 4. Summative questionnaire rating by agency

No.	Items	Score rated by agency on General Performance (Out of 10)
1	Subject-Related Knowledge	8
2	Communication Skills	9
3	Organizational Skills	7
4	Social Competence	8
5	Problem-Solving Skills	8
6	Research Skills	8
7	Overall Satisfaction	9

Students rated their Organization skills a difference of -52, lowest difference among all eight domains, which coincides with the ratings of the agency supervisors (7, the lowest among the seven). Agency supervisors pointed out how they could organize better despite what they had done.

In all other dimensions, agency supervisors rated them high and yet students gave themselves some negative pre/post-test differences; post-test questionnaire being conducted after students have finished the SL project in real world. To account for discrepancies on these skills and attitude dimensions, our speculation was that as oriental students, they might take a modesty approach after having experienced their own shortcomings in authentic interactions with others. Alternatively, with a better understanding of the underlying issues along the way of the SL effort, they might have higher expectations of themselves and focused more on room for improvements.

5.4 Qualitative assessment tools reinforce claims on the positive impact of SL on students

The quantitative data did not indicate much impact of SL, the qualitative assessment tools (Reflective Essay and Focus Group Interview) however, strongly support that SL is an effective pedagogy in teaching and learning. Open-ended questions were asked to encourage students to speak up about what and how they had learned throughout the process, and they yielded additional data different from that revealed from quantitative tools. Students mentioned that they grew a lot.

5.4.1 Academic and subject-related knowledge

This project exposed students to the complexity and inseparable relations of social issues, especially poverty and education. With engagement in Playtao, students started to understand the business model and role of social enterprises, the pros and cons of the current education system, and how the current social welfare system is dealing with the situation. They better understand the dilemma and limitations occurring in a real-life context, and therefore learned how to analyze situations from various angles, referencing

different phenomenon and theories captured from the classroom and textbook. By putting themselves into other's shoes, students were enlightened to keep reflecting on what poverty was, and how it affected children's learning quality. They were able to go into details of these social and welfare problems, contents required of in the Sociology course.

> I really hope to learn more about how the primary children feel about being poor and about their daily life, and from there, to think of some ways to help them. This can definitely help my academic study as well as improve my awareness of social issues.
> (Student A, Reflective Essay)

However, students commented that the subject knowledge being taught in this course was too broad, thus making it difficult for them to study each topic/issue in a specific way. Many of them pointed out that active faculty participation was essential in helping them with the subject knowledge linkages (such as explaining how certain theories related to the cases they encountered, and what questions they could ask the service targets and agencies to learn more about the situation – one manifest linked to Research Skills). This reveals the important role of the course instructor in manifesting the core value of SL, which brings knowledge application and knowledge scaffolding together with service opportunities.

5.4.2 Communication skills

The project provided a platform for students to get in touch with different stakeholders. From the Pre/Post-Test Questionnaire, the results indicated a slight drop (pre-test: 5.77; post-test: 5.65; difference: -0.12). The greatest challenge was an initialcommunication mismatch experience with the service agency. Confusion over roles and responsibilities spoiled the students' degree of engagement at the beginning. Regardless of this challenge, from the qualitative assessment tools, students expressed that SL experiences greatly enhanced their communication skills. The time spent with children and the agency supervisors had met their expectation to connect more with others. They found these communication opportunities as the most distinctive difference from traditional tutorials, which only allowed them to get in touch with the course instructors and peers.

> In the process of program designing with my group mates, my communication skills strengthened. Occasionally, there were different ideas emerging from our group mates. It took time and skill to comprehend the ideas to make the final product.
> (Student B, Reflective Essay)

In addition, the consultation meetings provided students with a chance to understand the importance of communication. When the program was half-way through, students encountered frustrations over various expectation mismatches; they then explicitly voiced their worries and suggestions in the meetings. The agency supervisors explained and addressed most of their frustrations and worries. By then, they understood better about what the limitations and difficulties that the agencies were facing, thus gaining a more comprehensive understanding of the scenario.

5.4.3 Organizational skills

The results of the Pre/Post-Test Questionnaire fell by 0.52 (pre-test: 6.79; post-test: 6.27). Yet the decrease in scores does not necessarily mean students' organizational skills were deteriorating. This happened when students had higher expectations and standards for themselves after realizing that the program required lots of planning. The practicum made them realize potential improvement gap. For instance, one of the students mentioned

Playtao enriched his "game collection" since they always had to design different games with educational elements for the children. He pointed out that he never had such practice, since the traditional way of learning in class did not provide him with the chance for program planning.

The teamwork component enabled them to organize and to allocate tasks within the group. Skills like how to motivate the children and control the crowd are techniques that could not be learnt from textbooks; nonetheless future employers would expect students to acquire such soft skills during their university study years. SL provides opportunities for students to develop these necessary skills, like project management, as they work in teams. They also improved their leadership skills in delegation and division of labour. Some students noted that the time pressure associated with a heavy workload somehow helped them improve their time-management skills.

> We received guidance on organizational skills throughout the project; we understood that there should be learning elements when we designed the games. We started from scratch to plan eight weeks' activities for students, which included classroom activities and outdoor visits to Lingnan. Each time, we had to plan and organize all the activities; it helped improve my organization skills. (Student C, Focus Group)

5.4.4 Social competence

By working with various stakeholders, one has to learn how to build meaningful relationships with others. Regardless of the result of the questionnaire (pre-test: 6.84; post-test: 6.79; difference: -0.05), students said that their interpersonal skills were enhanced, as they had worked with different parties towards common objectives. As time went by, students built good relationships with the children. This greatly fostered their confidence in working with different people for common good of society. Working with the agency broadened their horizons with different perspectives, motivating them to strengthen their own networking.

> The most valuable experience was that I could really work with the agency partners to plan for a real task. This helped me understand the rationale and objectives of the agency, and also polish my skills to communicate with my supervisor. I believe this experience can help my future career. (Student D, Focus Group)

Peer influence had an effect in determining how students interactedin the SL program. One exchange student expressed her frustration over the language barriers at the beginning; however, when she observed that another exchange student was making an effort to overcome the same challenge proactively, she was motivated to break through the barriers, and had an enjoyable experience.

> One of the most difficult challenges for me was the language barrier. The fact that I was not able to speak directly to the kids [*in the local dialect*) disheartened me at first; I felt frustrated and my performance was very poor. However, there was an experience that changed my feelings about this: one of our team-mates, who was also an exchange student (from Korea), was very energetic with the children, and she put all her effort into making the children feel important. After watching her, I decided to try to interact with them more. (Student E, Reflective Essay)

5.4.5 Problem-solving skills

The difference between the Pre/Post-Test Questionnaire was so small in this area that it could not truly reflect the story (pre-test: 6.89; post-test: 6.87; difference: -0.03). Textbooks do not offer students the opportunity for authentic problem solving, as they are selected medium to convey facts and theories that happen in life. On the contrary, SL provides an interactive platform for students to act and to react. The emergency and sudden incidental changes in real life really allow students to work out their own plans and responses. Surprises and challenges were the norm in practice. For instance, the service targets changed just before the program started; some children could not get along well with their peers; the crowd was out of control, and so on. Yet students tried their best to sort them out, one by one, in order to keep the program running.

> And there were some conflicts. We have children doing their homework and were not allowed to join us, they were distracted from our games, and they would become unhappy. I had to deal with such situation and resolve the problem. I tried to encourage them … So I had learned some more problem solving skills.
> (Student F, Focus Group)

5.4.6 Research skills

A slight increase in research skills was revealed in the Pre/Post-Test Questionnaire (pre-test: 6.52; post-test: 6.53; difference: +0.01). Some students mentioned in the focus groups that research skills was the domain in which they have learnt least from SL. They suggested the program could be divided into two phases, with the first one focusing on research and training, and the latter one as the service practice. They elaborated that when learning comes first, they would have time to investigate the related issues and better equip themselves like an expert for the program. In that case, they could easily identify how the scenarios in practice matched with the subject knowledge, and hence better connect them with the experiences.

> Like [in another project,] the Community Care Fund, it only required us to investigate a few social issues and write a proposal for application. We did a lot of research before, which greatly facilitated us in applying the theories and knowledge; therefore we could learn more effectively during the service.
> (Student G, Focus Group)

This arrangement allowed them to further explore the background and rationale of the program and social issues for better planning to fit scenarios. Also, students would be motivated to study harder and equip themselves as they realized they could impact others' lives. Besides, they also perceived the research work could help better output in the final assignment. They could use real stories and include authenticapplications from their own experience as supporting evidences.

5.4.7 Cultural competence

The questionnaire indicated a positive change over this domain (pre-test: 7.90; post-test: 8.37; difference: +0.47). Cultural difference does not only occur with difference in nationality, but also with backgrounds, ages, lifestyle, and social status. In Playtao project, students worked with various stakeholders, such as children, agencies, teachers and the elderly. They had the chance to understand others by sharing and working together. Students learnt about children's perceptions of themselves through directinteractions; aboutparental styles by sharing the difficulties with the agency; about wisdom of the elderly

by working side-by-side with them. All these experiences enabled them to learn how to respect and appreciate differences in culture and personal background.

> I have improved my interpersonal skills because my group was rather multicultural; one member comes from Mexico and the other comes from Korea. For that background, we spent a lot of time on communication, as English is not our first language (not even local students). Through this interaction process, I believe my interpersonal skills have improved a lot and myself more mature to cooperate with people from different cultural backgrounds. (Student H, Reflective Essay)

5.4.8 Service mindset

Students encountered upsetting challenges duringthe Playtao SL practice, which might have deterred them from further action. The questionnaire reflected a little decrease (pre-test: 7.16; post-test: 7.02; difference: -0.13) that might have been caused by the frustration created from realizing their own limitations. Yet it turned up better when students expressed themselves in the later focus groups; knowing that they were greatly encouraged by the smiles and improvement that the children displayed, and hence found the project beneficial in bringing happiness and hope to the children.

> I felt empathy for these children. You realize that they have some emotional problems, and they demand from you some kind of attention or emotional backup, and sometimes you feel a duty to fulfill them.
> (Student J, Focus Group)

This reflection process further strengthened students' determination to serve, even when they found their actual service plan deviated from their expectation at the beginning. Even though challenges existed, they kept faith that the program could benefit the children to certain extent. It was the service mindset.

> This project provided a good opportunity for us to serve and learn. I realize that I can do and equip myself better through the process. I now have a sense of responsibility to society. Although I did not perform the best in this project, I will find a better way in the future to contribute.
> (Student K, Focus Group)

5.4.9 Cultural and social responsibility

SL opens the door for students to distinguish between truth and facts. Although the complexity of real cases and situational limitations to a certain extent diminished their enthusiasm, the frustration did not actually destroy their passion for service. To the contrary, it further increased their curiosity in exploring how one could influence the community in a positive way. A stronger sense of social responsibility was demonstrated, as they perceived that they could be the change agent in other aspects of the future society.

> Service-Learning is not just a program that teaches the practical applications of our studies. We can also become actively contributing citizens and community members through the service.
> (Student L, Reflective Essay)

As a result, the people that the students encountered had become informal mentors to them, inspiring them in many different ways. When students began to understand the hardships that someone was experiencing at another corner of the community, they started to reflect on their own behaviors and think of ways to make a difference to society. This emotional attachment boosts up students' empathy for others, thus further develops their sense of social responsibility.

5.4.10 Overall satisfaction

Students perceived a lower satisfaction of the program as revealed in the questionnaire (pre-test: 7.23; post-test: 6.93; difference: -0.30). This happened because this is their first pilot run, to be free to design a program. Further improvement on scheduling and program arrangement could certainly be made. However, from the essays, reports and focus group, students described the challenges they overcome; they climbed the skills and psychological barriers.

5.5 Lessons learnt: future project development

Although the scores from Pre/Post-Test Questionnaire did not reflect favourable results of SL on teaching and learning, the comments and observation obtained from the Reflective Essay and the Focus Group Interview explained the numbers and showed other aspects of the scenario. For instance, quite a lot of students commented that the uncertainty of child attendance was an obstacle for the program. It increased the difficulties of communication and activity planning with the agency supervisors as they had to keep refining the sessional program objectives and activities. Another frustration they encountered was the lack of autonomy for program planning. Their expectations were not met when the time spent on homework tutorials was a lot longer than that for the learning activities, limiting students' capacity and creativity. As a result, the difficulties and lack of opportunity to perform decreased their self-rating on certain aspects. Nevertheless, the experiences still had an impact on students' personal development without their cognitive awareness, when the qualitative results explained what and how students have responded to the situation positively, enriching their competences in dealing with difficulties in the future. Some of them expressed that the challenges have inspired them to further improvement and future contribution.

5.5.1 Triangulation augments claims from qualitative evaluations

Even though the quantitative research data do not indicate entirely positive results, qualitative data collected from different stakeholders explained the discrepancy and re-assured positive changes of the students throughout the process. The qualitative data also explained why and how Service-Learning could be an effective pedagogy that enhanced teaching and learning of the course materials, when compared with traditional classroom teaching. Results from different evaluative tools complemented one another.

According to Lunenburg [14], he agreed with Vroom's Expectancy theory of motivation that an individual will act in a certain way because they are motivated to select a specific behaviour due to what they expect the result of that selected behaviour will be. Even with students who are no champion in rote learning, elevated confidence in understanding cognitive knowledge taught in class after SL practice and self-confessed heightening of self-confidence and will to serve in future surely motivate them to sustain efforts to explore, to learn, and to excel. Insights and lessons from one project transferred to other cases strengthen knowledge scaffolding. It takes time to construct a strong functional personal wisdom network but persistence surely pay. Service-Learning could be the tipping point.

Triangulations of all the quantitative and qualitative assessment data present us a comprehensive picture about the transformative power of SL through this discrete project with just 15 university students and 62 primary school children. These tentative insights inspired us to revisit past multiple partners SL projects evaluation data or else to accumulate similar future SL joint-venture projects for meta-analysis, which is likely to provide convincing evidence of the transformative potential of experiential learning

towards building another generation of university graduates into faithful change agents of the community.

5.5.2 Success factors for good SL project partnership

In order to make SL projects successful, two factors are important:

5.5.2.1 Well-defined program objectives, structure, role, and responsibility

A clear program objective, clearly structured and specific, together with delegation and autonomy, are significant for students' performance and program development. Project framework should be well defined in advance with the agency to serve as a protocolfor students exercise working out their ideas independently. Students generally have high self-expectations and prefer to witness the immediate impacts of their work. Many of them said the Playtao practice action was too short for them to understand or account for the effect of their effort. Despite the short duration, the insights and experiences that they earned provided a good source of encouragement for their future. Once they are in better roles or with stronger influencing power, they will take the chance to perform and help. SL reinforced their sense of social responsibility.

5.5.2.2 Strengthening cooperation between students and other parties

There are possibilities to help students perceive betterthat SL could enhance their subject-related knowledge and research skills. People learn faster when experiencing foreign situations very different from the familiar scenarios in their comfort zone. Meaningful SL projects aim to put students in de novo authentic situations, forcing them to think from others' perspective. Naturally, they may not know fully the program background, the underlying social issues, and the related theories and knowledge to draw the linkage between learning and serving for designing suitable activities for the targets. Teachers can work with the agency supervisor to tailor-make training and to introduce related background knowledge to the students. In return, the students' experiences could be cited as case studies during classes.

In addition, consultation meeting is essential for the deliberation of ideas, and acts as an excellent channel for different stakeholders to get to know others' limitations and recommendations. Agency participation is essential to address any possible concerns and difficulties that students encounter at the work floor, so as to facilitate the students to wrestle with the challenges. Teachers'participation is essential for bridging practice and theories. Students expected more from the teacher, in explaining the theories and application of subject matter, especially when the course content is of broad coverage. Small group consultation meetings are more effective in encouraging students express their ideas and to receive specific feedbacks directly from their teacher.

6 Conclusions

To conclude, this research has provided insights on how Service-Learning enhance students' learning, namely, by exposing them to the community, to learn by experience, while at the same time improving their knowledge and skills to address the challenges brought up by poverty and education inequality.

SL bridges between the ivory tower in campus with real life in the community, facilitates reciprocal serving, learning and teaching among the teachers, students, agencies and the community, contributing eventually to a harmonious society with better citizens.

Findings showed that the project helped our university students better understand their roles in relation to the community, increase their sense of social responsibility, and working together with exchange students foster a cross-cultural interactive environment in education.

The triangulations of quantitative and qualitative methods contribute effectively in evaluating the students' learning in social service. Service-Learning results in elevated self-evaluation and confidence in all generic skills and attitude changes measured through continual formative assessments though it does not promise immediate conquer over the control group in summative assessments.

Discussions have been made to reflect the different roles of summative and formative assessment that Service-Learning could be the catalyst of learning as the tipping point for successful community network construction.

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Appendix One

Cross-Sector Partnership and Roles of Partners
Playtao is a cross-partnership program co-run by the Department of Sociology and Social Policy, Office of Service-Learning (OSL) at Lingnan University, Social Ventures of Hong Kong (SVhk), and the Yan Chai Hospital Law Chan Chor Si Primary School. The roles of the different stakeholders are presented below.

1. *Department of Sociology and Social Policy, Lingnan University*
    Playtao was developed from the course *SOC327: Social Welfare and Social Problems in Hong Kong* provided by the department. The course initiated a research project to study how the current social conditions of Hong Kong affected the education opportunity and learning potential of children from low-income families. Fifteen university students taking the course participated in the project. The course instructors were responsible for teaching the university students basic knowledge on the social issues. Under their supervision, students would be guided to reflect on the observations and data collection.

2. *Office of Service-Learning (OSL), Lingnan University*
    OSL designed the SL program structure and timeline with SVhk, and then initiated the cooperation with the course instructors. It successfully integrated the Playtao Program into the course *SOC327: Social Welfare and Social Problems in Hong Kong*. OSL then served as a program coordinator between SVhk and the Lingnan students over the Service-Learning and Research Scheme (SLRS) arrangement. It arranged orientation and training sessions, and consultations for students, bringing in the course tutor and the staff from SVhk for discussions, in order to enrich students' learning on both the subject-related knowledge and the real circumstances that the program and the service-targets were facing.

3. *Social Ventures of Hong Kong (SVhk)*
    SVhk is a venture philanthropic organization in Hong Kong. Seeing the financial burden of low-income families and the widening education gap for this group of children, it initiated the Playtao Program to provide after-school care and educational programs to those in need, aimed at creating fair learning opportunities and a friendly environment for children. In this project, the organization communicated with the primary school principal and teachers on child recruitment and class arrangement, and hired tutors for the homework tutoring and class supervision. It also provided specific training and consultations for Lingnan students before the program about the background information, rationale and objectives of the program.

4. *Yan Chai Hospital Law Chan Chor Si Primary School*
    The school provided general support to the program on student recruitment and provided subsidies for children in need. The school teachers were responsible for following up special circumstances, and reporting any misbehavior by the children and notifying the parents.

Appendix Two

Self-administrated Summative Questionnaire
(For service agency supervisors in Mode 2& 3)

SLRS is designed to support the development of University-wide Service-Learning Programs (SLP) at Lingnan University and enhance students' learning ability through community services. The aim of this questionnaire is to evaluate students' learning efficacy and outcomes over time through participating in the SLRS. The questionnaire is a summative one. Social service agency supervisors are required to evaluate the students' performance upon the completion of the service practicum.

Part I: Social Service Agency Supervisors' Profiles
a.   Name in English:
b.   Name in Chinese (if applicable):
c.   Name of Agency:
d.   Major role involved in the SLRS (please specify) (optional) :
e.   Name of students supervised in this semester:
f.   Estimated number of hours spent in supervision (optional):

Part II: Overall Evaluation of the Program

Please circle the appropriate scores (1=lowest, 10=highest) to indicate the learning abilities of students.

Items	Score									
1. Subject-related knowledge e.g. leadership and teamwork, strategic management, social gerontology, social welfare and social problems in Hong Kong, society and social change, crime and delinquency, etc.	1	2	3	4	5	6	7	8	9	10
2. Communication skills e.g. to express ideas clearly and listen to others' ideas	1	2	3	4	5	6	7	8	9	10
3. Organizational skills e.g. to arrange parts and people into an efficient system; to demonstrate leadership skills; to organize different kinds of programs.	1	2	3	4	5	6	7	8	9	10
4. Social Competence e.g. the skills necessary to be accepted and fulfilled socially, including interpersonal relations, adaptability, self-confidence & social skills	1	2	3	4	5	6	7	8	9	10
5. Problem solving skills e.g. to recognize the core of the problems and to solve it effectively and/or with creative thinking	1	2	3	4	5	6	7	8	9	10
6. Research skills e.g. searching relevant data, types of research method, to collect and analyze data	1	2	3	4	5	6	7	8	9	10
7. Generally speaking, do you think the services provided by students are useful for agencies / schools / etc?	1	2	3	4	5	6	7	8	9	10

1.   From your observation / experiences, do you have any comments on the following

implementation modes of the SLRS: (e.g. format, supervision mode, duration of services, no. of students/ no. of clients, etc)

2.   Do you think the services provided by students are useful for agencies? Why or Why not? How can their services be improved (service contents / duration / no. of student each session, etc) to meet the needs of agencies / schools, etc.?

Appendix Three

Student Performance Rating Form (For service agency supervisor)

Agency:	
Person-in charge:	
Student name:	
Student no:	

Evaluation

Please evaluate the student's performance and circle the appropriate number below:
(1 = Very Unsatisfactory; 10 = Very Satisfactory)

Attendance / Product Quality:	1	2	3	4	5	6	7	8	9	10
Work Attitude:	1	2	3	4	5	6	7	8	9	10
Individual Commitment:	1	2	3	4	5	6	7	8	9	10
Communication Skills:	1	2	3	4	5	6	7	8	9	10
Cooperation with Team:	1	2	3	4	5	6	7	8	9	10

Other comments:

_____
_____
_____
_____
_____

Total Marks: _____ (Maximum 50 marks)