Hearing the voices of the voiceless: Service-learning and its impact on aspects of social awareness amongst nursing and optometry students

ABSTRACT
This study involved nursing (NSG) and optometry (OPT) students from the School of Health Sciences (HS), Ngee Ann Polytechnic (NP), Singapore. It aimed to understand the effect of service-learning (SL) engagements on the social awareness of HSN and OPT students. The study examined two different modes of SL engagement: The first SL activity was a voluntary (outside of curriculum) Health and Eye Screening for migrant workers at their dormitory (N-118). The second SL activity was a compulsory (in-curriculum) social survey of foreign workers (FWs) (N-208) on their rest day outside of their dormitory. The quasi-experimental pre-test design was chosen where the two experimental groups served as their own control groups during the course of the research. The results of the study highlighted

KEYWORDS
service-learning
nursing education
migrant workers in Singapore
empathy education
critical thinking training
social inequality awareness training
that not all SL activities were created equal in their impact on learning. Of the two experimental groups – Experimental Group 1 (compulsory) and Experimental Group 2 (voluntary), the nature of SL engagement indicated that there is a higher positive impact on the social awareness level of the former (Experimental Group 1). The mode of engagement is a very short engagement with the community-in-need (five hours). The results of this study help to throw up for discussion the potential benefits of a high-impact but extremely brief SL engagement by students. Pending further validation, this strategy might be a potential solution for educational institutions juggling the twin tensions of timetabling and meaningful SL activities to further their students’ learning experience.

INTRODUCTION

Empathy, social justice and nascent health care professionals

In the training of healthcare professionals, particularly those in the frontline like nurses and optometrists, the education must also be focused on making these future care-givers more empathetic in addition to training them to be technically proficient workers. Empathy operationalized in this article can be defined as not just being able to see through another’s eyes BUT his or her mind’s eyes. Training a future healthcare professional to be empathetic is linked to the development of social understanding (Pecukonis 1990). An ability to understand social complexities facing individuals may perhaps allow students to see social injustice or conversely, social justice. Groh et al. cited the American Association of Colleges of Nursing (AACN) that ‘social justice as core nursing value […] and has been identified by the AACN (208) as one of the five professional value that epitomise the caring nurse’ (Groh et al. 2011: 401).

Tensions between domain versus social awareness knowledge

Nursing education cannot afford to emphasize only on the technical aspects of nursing skills alone. Nursing educators have to re-evaluate the shortcomings of an unequal emphasis on technical expertise. In assessing who is best even within technical skills training, the grading is often assessed ultimately through a summative and individualized environment. This has certain unintended negative side effects on collaborative psychology. Dolby (2013) cited a study by Konrath et al. (2011) that there is a 40 per cent decline of empathy in college-age students between 1972 and 2009. The researchers found that there is a strong link between this decline and the dominance of IT and mobile computing within communication between individuals. Dolby contends that this is compounded by the socio-economic changes that are sweeping across the middle-class, where the fear of the loss of future financial disability may have positively reinforced a more ‘selfish’ orientation. Dolby retrieved this information from Baugher (2007), a college student writing about the decline of empathy and social action in her generation. Combining the two facts, Dolby suggested that summative assessments and a focus on competition rather than collaboration would result in a less empathetic learner. According to Baugher’s student, this can be reversed if the learning environment emphasizes ‘cooperation and empathy’, such as the introduction of service-learning. The outcome would be learners whose brains are attuned to have a more inclusive rather than exclusive attitude towards society.
We can foster cooperation by having a higher number of group projects or using team-based-learning approaches, but how can we trigger empathy? This constitutes a complicated melding of emotions, feelings and knowledge that cannot be easily taught through textbooks or an in-class curriculum. To get students to be more empathetic, perhaps the answer would lie with the engagement of students with the external population. This would push the acquisition of empathy through experiential learning and less from teaching. The service-learning (SL) pedagogy would facilitate this.

**SL as a facilitator of empathy acquisition**

Due to the contending forms of community engagement in education, SL initiatives must be clearly defined. In trying to create a working definition, Bringle and Hatcher (1995) clarified that SL initiatives must not be confused with other non-classroom-based activities such as internship or volunteerism. So what makes SL courses an attractive or viable alternative to the training of empathy? Sook and Bloomquist (2015) concluded that any SL-infused course must have overt goals to achieve both academic and civic learning. The key desirable factor is to develop critical thinking skills through service (Sook and Bloomquist 2015: 204). This then makes SL instructions highly attractive to those of us who has to prep or guide our students who will eventually work within a socially sensitive service industry such as nursing. However, SL is not a magic bullet. For it to work, there must be some recommended structures to be constructed. Mckinnon and Fealy postulated that there are ‘Seven Cs of best Practice’ to ensure the desired learning outcome from their literature review. These are compassion, curiosity, courage, collaboration, creativity, capacity building and competence. These core principles, they argued, would ‘foster ethical and compassionate experiences’ (2011: 95, emphasis added).

**Existing structural constraints to achieving the Seven Cs of best practice**

*Contestation for the resource of time*

The HSN education at the School of Health Sciences (HS), Ngee Ann Polytechnic (NP) places a huge premium on Clinical Attachment (or Practicum). Hence, the HSN students would spend up to a third of their semestral credit hours on attachment with a healthcare institution. This often leaves about six to seven weeks of classroom time for theory acquisition and traditional classroom-based instructions. This competition for the resource of time made implementing a mid to long extended collaboration as suggested by Mckinnon and Fealy nearly impossible, given the timetabling constraints.

*Examination/academic regulations*

Perceptually, pedagogy at NP is evolving at an exciting and breath-taking pace. HS as part of this shifting, exciting pedagogical environment has been pushed to adopt its two signature pedagogies: remote-learning and SL. These two signature pedagogies open up new instructional horizons but at the same time introduce a state of culture shock if we view the seismic changes of the two signature pedagogies as ‘technological’ advancement. Both Remote-Learning and SL have evolved to a form where they are conceived as training the learners to become their own teachers. In the context of SL, the students...
1. SAWI is a subject that all Year 2 students must undertake. The subject looks at how prejudice and discrimination lead to the social exclusion or marginalization of different groups such as migrant workers, ethnicity, gender, sexuality, age and religion. It maps discrimination to the spread of diseases. Students become their own teachers in the acquisition of critical thinking through the use of formative reflective assessments (Sook and Bloomquist 2015: 204). So this then creates a potential situation where the frontline of pedagogy, i.e. the modes of instruction push faster into the area of a formative classroom than the backend of an education system such as exam regulation and assessment control. This is the concept of cultural lag described by Ogburn (1964), where the technical changes (in this case, shifts in pedagogy) far outstrip the development of assessment standards and the ability of the teaching staff to comprehend and adapt to this shift to a formative curriculum. This essentially is the sometimes confrontational positioning of a ‘formative curriculum’ versus a ‘traditional curriculum’. Clark laid out these contrasting differences rather succinctly in his paper on formative assessment. One of the key points noted is Formative versus summative assessments. This is directly linked to their learning approaches, where a formative curriculum favours ‘Flexible schedules; learning is interactive, building on what the student already knows’, versus a traditional curriculum, where ‘learning is based on repetition’ (Clark 2015: 95).

Culture lag, social strain and impact on adoption of SL

To understand the impact of this cultural lag, we can revisit Merton’s Social Strain Theory (1957) to analyse how existing academic structure creates pressure on the implementation of SL initiatives. The institution or the teaching staff would most likely implement SL if he or she is in a state of conformity where both institutional means (support from timetabling, assessment, learning outcome) and cultural means (teaching beliefs, buy-in into SL pedagogy, etc.) are accepted (top-left box in Figure 1). HS’s approach in our fledgling foray into SL within the subject Singapore and World Issues (SAWI) could be categorized as Innovation as illustrated by the box on the top-right. In the case of HS, there is an acceptance the SL is an important pedagogical tool and that, within the context of SAWI, students will learn much more about social exclusion or social marginalization through direct engagement with a community of need. However, there is a lack of alignment within the allocated timetable and the time needed for a desired longer term engagement with a community of need.

![Figure 1: Merton’s Social Strain Theory applied to adoption of SL in HS.](image-url)
This was supported by the Sook and Bloomquist literature review, where they noted that the ‘academic calendar’ differs from the ‘community calendar’, this renders planning far more complex and long-term, and sustainable planning difficult or impossible (2015: 205).

**HS innovation in SAWI’s approach to SL implementation**

A long to moderate long-term engagement for the students is problematic in view of the short teaching terms of 4+4 weeks due to the required clinical attachment. So the strategy is to maintain a high-intensity but very short engagement of four hours on a Sunday with the target community via a service for a non-governmental group (NGO).

**Sustainability and NGO fatigue**

The other chief constraint in the implementation of HS’s SL is to find a community partner who will be willing to or can handle the sheer numbers (450 per academic year) without too much strain on their resources. This factor also directly impacted on the length of engagement, where the perceived or actual strain felt by the partnering NGO may lead to a premature fracturing of the SL partnership.

**DESCRIPTION OF THE SL ENGAGEMENT**

This research looks at two different SL engagement activities. One SL activity has a formal linkage to curriculum while the other is voluntary and linkages to curriculum are not via a formal structure.

**Experimental Group 1**

All students within Experimental Group 1 are HSN students enrolled in the SAWI class and they have to conduct a social survey of foreign workers (FWs) in Singapore for a local NGO, Transient Workers Count Too (TWC2). They have to conduct this survey on Sunday in FWs-enclave in various parts of Singapore as reflected in Figure 2 in the previous page. The ethnicities represented in these field data collection points are reflected in Table 1.

![Figure 2: Format of SL engagement. Curriculum-linked (Compulsory).](image-url)
Table 1: Field data collection sites and the nationality and gender representation.

<table>
<thead>
<tr>
<th>Location</th>
<th>Region</th>
<th>Gender (FW)</th>
<th>Nationality represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boon Lay</td>
<td>Singapore West</td>
<td>Male</td>
<td>Bangladeshi, South Indians and Chinese</td>
</tr>
<tr>
<td>Chinese Gardens</td>
<td>Singapore West</td>
<td>Male and female</td>
<td>Bangladeshi, Indians and Filipinas</td>
</tr>
<tr>
<td>Jurong East</td>
<td>Singapore West</td>
<td>Male</td>
<td>Southern Indians primarily Tamils</td>
</tr>
<tr>
<td>Little India</td>
<td>Singapore Central</td>
<td>Male</td>
<td>Southern Indians primarily Tamils</td>
</tr>
<tr>
<td>Farrer Park</td>
<td>Singapore Central</td>
<td>Male</td>
<td>Bangladeshi with some Bangladeshis</td>
</tr>
<tr>
<td>Botanic Gardens</td>
<td>Singapore Central</td>
<td>Female</td>
<td>Filipinas</td>
</tr>
<tr>
<td>Esplanade</td>
<td>Singapore Central</td>
<td>Male and female</td>
<td>Myanmar</td>
</tr>
<tr>
<td>Aljunied</td>
<td>Singapore East</td>
<td>Male</td>
<td>Chinese</td>
</tr>
<tr>
<td>City Plaza</td>
<td>Singapore East</td>
<td>Female</td>
<td>Indonesians</td>
</tr>
</tbody>
</table>

The students in this SL engagement helped TWC2 to conduct surveys. To date, the students have collected data on four different surveys on this topic: (1) employment history (male FW); (2) living arrangements (female domestic workers FDWs); (3) access to healthcare (FDWs); and (4) work fatigue (Male FWs).

This activity is linked to the curriculum and the students were told to link what they had and will learn in SAWI about the role played by prejudice and discrimination in the social exclusion process of disenfranchised groups in Singapore. Reflection is conducted orally at the end of the SL activity. They are also assessed formally via a written reflection on the causes of social exclusions/marginalization of migrant workers and other politically disenfranchised groups.

**Experimental Group 2**

The students in Experimental Group 2 engaged in a different SL activity. This group consisted of volunteers and included a mixture of HSN and OPT students from all three years of study. This activity is in support of another local NGO, HealthServe. This NGO runs free clinics for FWs. The students conduct health and eye-health screenings for FWs in their dormitory. They have conducted three such combined screenings at three FW 02_CTL_14.2_Masduki_143-160.indd   148 30/08/19   8:46 AM

![Figure 3: Format of SL engagement–non-curriculum-linked (Voluntary).](image-url)
dormitories. The reflections are conducted in an informal group setting at the end of the SL engagement and there are no formal assessments pegged to the nurses. The OPT students are assessed via a written reflection in the October semester within the class ‘community optometry and low vision’.

RESEARCH QUESTIONS

Research question 1
Given the fact that HS’s approach and eventual SL implementation can be seen as ‘deviant’ as per Merton’s Social Strain Theory, we decided to examine if a short (four hour) engagement in a high-intensity situation would impact on or create a shift in the social awareness of the HSN students.

Research question 2
We also collected data on another SL activity that is voluntary and not linked to a formal curriculum. Students were briefed prior to activity, and post-reflections are conducted orally and at group level. We would like to see if there is a difference between this voluntary SL format and a compulsory (curriculum-based) SL format with respect to shifts in social awareness.

Definition and measurement of social awareness
Changes in social awareness are measured using pre-post SL engagement measurements of self-reported attitudes towards the following: understanding of the value of community (respect); willingness to talk about social issues (nascent advocacy); ability to identify what is right and wrong (sense of social justice); and willingness to start campaigns/events to address social injustice (active citizenry).

METHODOLOGY

Research design
The design is a quasi-experimental pre-post test survey as depicted in Figure 2. The survey is deployed on the Google Form platforms and the research populations were informed that it is compulsory to complete the survey before and after the SL engagement. The research population serves as its own ‘control group’ during the pre-phase of the study.

Sampling
The selection of the research population is via Purposive Sampling. For Experimental Group 1, all Year 2 students who were enroled into the SAWI class and who have attended the SL activity are automatically included in this exploratory study. For Experimental Group 2, all students who volunteered for the voluntary SL activity constitute the research sample.

Data collection procedure
Prior to the SL engagements for both experimental groups, the students were given a pre-activity lecture to equip them with using the design-thinking P.O.E.M.S.² (Acara Institute 2010) structure to help them with field observation. The pre-survey was conducted in this pre-activity briefing session.
2. **P.O.E.M.S.** is a structure field observation design-thinking-linked technique that allows individuals to analyse what they see in terms of people (P), objects (O), environment (E), messages (M) and services (S).

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**Quasi Experimental study**

![Quasi-experimental pre-post test implementation.](image)

The students were given a week after the SL engagement to complete the same assessment of social awareness survey for post measurement.

**Instrumentation**

The measuring instrument was constructed from an existing online survey with no authorship attribution (SurveyMonkey n.d.) and the attitudes towards migration module of the European Social Survey (ESS) Round 7 (2015). It is a 30-question online survey divided into seven sections.

**Ethical considerations**

The design cannot be fully experimental due to ethical considerations since the research involved students within a scheduled class. It is ethically complex.

<table>
<thead>
<tr>
<th>S/No</th>
<th>Sub-sections</th>
<th>Number of questions</th>
<th>Description of sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demographic information</td>
<td>04</td>
<td>Information on students’ gender, citizenship status and pre-post marker</td>
</tr>
<tr>
<td>2</td>
<td>Social awareness</td>
<td>05</td>
<td>Questions on perceptions of social justice/injustice, perceived injustice to self and social network</td>
</tr>
<tr>
<td>3</td>
<td>Actions against social injustice</td>
<td>02</td>
<td>Attitude towards actions against social injustice</td>
</tr>
<tr>
<td>4</td>
<td>Discussions on social justice/injustice</td>
<td>03</td>
<td>Awareness or attitude towards discussing social injustice</td>
</tr>
<tr>
<td>5</td>
<td>Knowledge of external community</td>
<td>07</td>
<td>Awareness of value, contact with FWs and perceived prejudices against them</td>
</tr>
<tr>
<td>6</td>
<td>My place in community</td>
<td>03</td>
<td>Questions on engagement with community</td>
</tr>
<tr>
<td>7</td>
<td>Empowerment/action</td>
<td>06</td>
<td>Actions on social injustice</td>
</tr>
</tbody>
</table>

**Table 2: Details on the subsections of the online survey instrument.**
to designate a half-cohort to do SL and deny the other half this experience when there is a potential impact on their performance in a graded assignment. So the most ethical choice is to run a quasi-experimental pre-post test survey as depicted in Figure 2.

The survey is also anonymously administered to control for any social desirability bias or examiners’ bias (particularly in the student-lecturer context). The anonymity prevented the students from feeling pressured to provide an answer they think the examiner who is also the administrator of this survey wants. On the flipside, the examiner does not know what the students reported and this would not introduce any bias in the grading of future assignments in the module.

**ANALYSIS OF DATA**

The pre and post survey returns are asymmetrical and needed to be cleaned up. This is due to students not completing with either the pre or the pre survey. In the initial statistical analysis presented at the 6th Asia Pacific Regional Conference of Service-Learning (6th APRCSL) in Surabaya, the discrepancy in responses of the pre and post population (454 vs 213) was addressed by randomly discarding 207 responses to gain the final $n$, which is symmetrical for both the pre- and post-population: at 207 for Experimental Group 1 and 65 for Experimental Group 2.

In this initial analysis study presented at 6th APRCSL, not all the questions were analysed. We analysed these four questions for the pre-post shifts in the two experimental groups. The questions are as follows:

- my current knowledge of foreign construction workers’ contributions to Singapore;
- my ability to identify and change what is wrong and unjust.

The answer choices for these two questions are as follows:

- none/not at all;
- very little;
- somewhat;
- a good amount;
- a great amount.

Another question is whether the interviewee would:

- talk about social issues with friends;
- organize/create campaigns or events that address social injustice.

The answer choices for these two questions are as follows:

- not willing;
- unsure;
- willing.

The first two questions address understanding and perhaps empathy while the other two look at indications of embracement of active citizenry or civic consciousness. The results of the pre-post of Experimental Group 1 are indicated in Table 3.
Here are the pre-pre data of the pre-post test comparison presented in terms of frequency comparison. The curve shifted towards the right in all four questions although there is evidence of the presence of the central tendency bias in each of the cases.

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Levane's test for equality of variance</th>
<th>T-test for equality of deviance</th>
</tr>
</thead>
<tbody>
<tr>
<td>My current knowledge of foreign construction worker contributions to Singapore (Qx1)</td>
<td>207</td>
<td>Equal variance assumed</td>
<td>*0.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal variance not assumed</td>
<td></td>
</tr>
<tr>
<td>My ability to identify and change what is wrong and unjust (Qx2)</td>
<td>207</td>
<td>Equal variance assumed</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal variance not assumed</td>
<td>*0.019</td>
</tr>
<tr>
<td>My willingness to talk about social issues with friends (Qx3)</td>
<td>207</td>
<td>Equal variance assumed</td>
<td>0.046</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal variance not assumed</td>
<td>0.662</td>
</tr>
<tr>
<td>My willingness to organize/create campaigns or events that address social injustice (Qx4)</td>
<td>207</td>
<td>Equal variance assumed</td>
<td>0.883</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equal variance not assumed</td>
<td>0.23</td>
</tr>
</tbody>
</table>

*significant

Table 3: Independent-samples t-test result for Experimental Group 1 (pre-pre).

My current knowledge of Foreign Construction Worker contributions to Singapore

Figure 5: Pre- and post-frequency bar charts and line graphs of (Qx1).

Here are the pre-pre data of the pre-post test comparison presented in terms of frequency comparison. The curve shifted towards the right in all four questions although there is evidence of the presence of the central tendency bias in each of the cases.
My Ability to Identify What is Wrong and Unjust

Figure 6: Pre- and post-frequency bar charts and line graphs of (Qx2).

Talk about social issues with friends

Figure 7: Pre- and post-frequency bar charts and line graphs of (Qx3).

Organize/create campaigns or events that address social injustice

Figure 8: Pre- and post-frequency bar charts and line graphs of (Qx4).
We also analysed the data from the voluntary group whose SL is not linked to the curriculum to see if any shift between pre- and post-SL engagement is significant enough to be discussed. These results are discussed in Table 4.

The data was further analysed post-6th APRCSL using the totals from the sub-sections rather than individual questions using independent *t*-test from the total of the 4 consecutive SAWI cohort (2015–2017) from the modified ESS instrument (see Table 2). In the ‘empowerment to change’ suite of questions (Table 2, subsection 7, total of 6 questions), the pre-post test yielded significant results (see Table 5).

As did the ‘knowledge of external communities’ suite (Table 2, subsection 5, total of 7 questions). The pre-post test also yielded significant results (see Table 6).

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Levane’s test for equality of variance</th>
<th>T-test for equality of deviance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>Sig</td>
</tr>
<tr>
<td>My current knowledge of foreign construction worker contributions to Singapore (Qx1)</td>
<td>65</td>
<td>Equal variance assumed 2.378 0.125</td>
<td>0.006</td>
</tr>
<tr>
<td>My ability to identify and change what is wrong and unjust (Qx2)</td>
<td>65</td>
<td>Equal variance assumed 0.023 0.881</td>
<td>0.308</td>
</tr>
<tr>
<td>My willingness to talk about social issues with friends (Qx3)</td>
<td>65</td>
<td>Equal variance assumed 4.728 0.031</td>
<td>0.230</td>
</tr>
<tr>
<td>My willingness to organize/create campaigns or events that address social injustice (Qx4)</td>
<td>65</td>
<td>Equal variance assumed 3.777 0.054</td>
<td>0.177</td>
</tr>
</tbody>
</table>

*Note: *significant

Table 4: Independent-samples *t*-test result for Experimental Group 2 (pre-post).

<table>
<thead>
<tr>
<th>This survey is done</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment/Action (Total) Before</td>
<td>454</td>
<td>12.74</td>
<td>2.107</td>
<td>0.006</td>
</tr>
<tr>
<td>After</td>
<td>213</td>
<td>13.22</td>
<td>2.047</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Independent-samples *t*-test result for empowerment to change sub-section (total of the 7 questions in this suite), Experimental Group 2 (pre-post).
This survey is done...

<table>
<thead>
<tr>
<th>Knowledge of external communities</th>
<th>N</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>454</td>
<td>8.58</td>
<td>2.094</td>
<td>0.000</td>
</tr>
<tr>
<td>After</td>
<td>213</td>
<td>10.04</td>
<td>1.873</td>
<td></td>
</tr>
</tbody>
</table>

Note: The Cronbach alpha for this instrument is 0.79 indicating that there is acceptable internal consistency.

Table 6: Independent-samples t-test result for knowledge of external communities sub-section (total of the 7 questions in this suite) Experimental Group 2 (pre-pre).

DISCUSSION

The preliminary results of this exploratory descriptive study are encouraging. It shows that if properly facilitated, an extremely short SL model may still have positive implications for long-term learning and civic/social consciousness. This theme of long-term learning in a short-term service engagement effect was also observed by Caldwell and Purtzer (2015). They found that their long-term learning goals for their HSN students such as embracing other, gaining cultural competencies and experiencing an ethnocentric shift are not compromised via a short SL engagement stint (Caldwell and Purtzer 2015: 580–81). Like Caldwell and Purtzer students, HS students after their short engagement with the FWs found that they evaluated themselves more critically as exemplified by the following quotes from their reflective essays:

I learn that I am, embarrassingly, Donald trump Junior. Before going on these trips, I was trapped in a bubble that society has placed on us. I believed that the visually impaired were useless and the foreign talents are dangerous. After the trips, I learned that I was naive and stupid to have been brainwashed by society.

(Year 2 nursing student 1, 17 year old)

We are the cause of our consequences. It’s as though, like, it is raining outside, I’m too lazy to bring an umbrella and assume that there’s shelter, but afterwards blame the rainy weather when I get caught in the rain. Linking this back to nursing, […] we should also treat all our patients with equality despite their origin because diseases have no eyes.

(Year 2 nursing student 2, 18 year old)

These qualitative comments are supported by the quantitative results presented in the previous section. The pre-pre test showed very encouraging results and a statistically significant positive shift in the social awareness of the students in terms of (Qx1) empathetic understanding, (Qx2) sense of social justice and (Qx4) nascent advocacy. This is also consistent with the studies of Foli, Braswell, Kirkpatrick and Lee (2014), Groh et al. (2011), Prentice (2007) and Scott and Graham (2015). However, SL must be meaningfully applied and the linkages between learning and service must be strong because if this relationship is weak, students may not see the benefit of the engagement and it may be ‘seen as just another assignment’ (Groh et al. 2011: 404). This is the reason why Bringle and Hatcher (1995) advocated the hyphenated...
SL to connote the equal importance of both elements. Assignments, along with a series of well-thought-out assessments or reflections, served as tools to produce learning. In other words, reflections cannot be completely free-formed but must be guided with cues and post embedded within the curriculum designs to help students construct meaning between the SL activities and the intellectual discourse they are undertaking within the classroom setting. This synergy will apply powerful learning that shifts their learning and ultimately their social awareness. This is observed in this introductory research.

The HSN students from HS engaged the same community – the migrant workers who are economically and politically disenfranchised – but the shift in social awareness is not the same. In Experimental Group 1, there is a strong link to curriculum in the form of weekly discussion of the impact of social exclusion to differing groups of marginalized populations and the students have to apply the knowledge gained from their brief SL engagement towards the analysis of the discrimination and analysis of the Singapore society, their society. In three out of the four sample questions examined, the shift is statistically significant (See Table 3). Conversely, in Experimental Group 2, the same community was engaged for the same amount of time but in a different activity without the benefit of a formal link to curriculum. This activity was incorporated into the curriculum, and the learning points from the SL were mapped into the theories learnt and incorporated into an individual assignment (worth 40 per cent). This has a much more powerful impact than if it was an extra-curricula activity. In this instance, there is a statistically significant shift in three out of the four questions selected for this preliminary study.

In many instance, this study conducted in Singapore amongst the students of NP (essentially a technical vocational college) replicated the study of most SL research to date. Our preliminary findings suggested that if there is a strong and meaningful link to curriculum, there is an impact on the social awareness for the learner despite a very short-term engagement of four hours over one weekend.

**Limitations**

By design, the measurement instrument was constructed to be anonymous. However, this anonymity has made it impossible to run a paired-samples $t$-test that would yield stronger data connections. Like all self-administered surveys, getting the students to complete both the pre and the post surveys is a problem. The actual response rate that can be used for the independent $t$-test analysis comes in at around 50 per cent due to the lack of symmetry between the pre and the post response rate. When the total was noted without any exclusion, the results were highly significant (although the result itself may be the result of sampling bias). The students who are most moved or motivated participated in the post-survey while those who were less impacted by the SL experienced removed themselves by not participating.

**Other variables**

While the evidence is strong both from the archival review and from within the observation in the scope of this study, another important variable should be looked at in the future. This is the nature of SL engagement. In Experimental
Group 1, the HSN students were engaged in an activity with the community that did not require the practice of any clinical skills while Experimental Group 2 did. The authors believed that this can be examined further particularly on the research question of whether the provision of health or eye screening actually interferes with the acquisition of empathy since by virtue of the uniform or their activity, the student nurses would have to switch their social role to that of a nurse. In this aspect, would this expert–novice (nurse–patient) separation interfere with empathy in an SL engagement? This question should be addressed in future studies.

**Survey fatigue and the central bias**

The survey is rather long at 30 questions for an online survey and this may potentially contribute to central tendency bias. A move to a four even number scale may force a ‘yes’ and ‘no’ answer or to re-run future iterations of this study using a reduced number of questions.

**CONCLUSION**

When implemented in the way it was intended, SL is highly effective in coaxing a deeper level of learning from the learners even from within an extremely limited engagement setting as the preliminary data from this study show. In a world changed by growing xenophobic sentiments, perhaps education needs to go beyond merely educating the head. SL triggers empathy (Scott and Graham 2015; Mckinnon and Fealy 2011; Geller et al. 2013) and empathy triggers prosocial behaviour (Pecukonis 1990). One of the key reasons behind faculties not commencing SL activities due to the real or perceived lack of support from their institutions (Bennett et al. 2016) and shoring up the institutional support may promote SL (Bringle and Hatcher 1995). However, the other factor inhibiting faculty participation is the conflict between the academic and community calendar (Sook and Bloomquist 2015); this study tantalizingly suggests that perhaps an acute, high-impact and well scaffolded may be an option to a time-squeezed curriculum timetable of eight teaching weeks within the nursing subject at HS. This of course has to be examined further through more research but it does offer a hopeful way to integrate SL without the need for a wholesale redevelopment of a subject. This may allow more faculties to experiment with SL integration. This might lead to more inspired faculty members. Afterall, SL also rewards the teachers by giving them renewed motivation to do more (Cooper 2014). In a world facing tectonic changes, hopefully SL might be a salve to mediate and negotiate for less painful transitions.

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**SUGGESTED CITATION**


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