

International Service-Learning in Nicaragua for Japanese Medical Students

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Abstract

Service-learning (SL) aims to match subject content with social need to give practical meaning to student learning. This international service-learning trip to Nicaragua paired medical English and other medical skills students were learning with the social need for medical care by underserved people in San Ramon, Nicaragua. One purpose of the trip was to provide a venue for the use of medical English learned in the classroom at a time when there was no such venue available. In addition, we hoped that students would “wake up” and recognize that language is a living thing meant to be used in communicating. Students joined US based NPO Corner of Love on medical missions to provide services to impoverished Nicaraguans while at the same time being given the opportunity to use English learned in university courses.

We sought answers to the following: 1. Did the SL help students improve their English skills? 2. Did the SL improve student learning motivation? 3. Is it possible for beginning medical students to effectively serve in a rural clinic? Student questionnaires and journals reflecting on the SL experience were used. We established that the SL experience led to increased motivation and awareness of language weak points. In addition, students identified barriers to communication that went beyond language, such as biases and stereotypes. Finally, students initially felt their medical knowledge was inadequate when working in the clinics, but found as they worked at the clinics they were able to offer indispensable assistance to the other team members and Nicaraguans.

Keywords: service-learning, Medical English

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Introduction

Service-learning is defined as a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities (National Youth Leadership council 2009). In the early stages of the creation of the Nicaragua Service-learning program for Japanese medical students, there were no programs available at my (C. Kuramoto) university that connected medical-English classroom learning with actual use of the language outside of class. In addition, class sizes of over 120 students made it impossible to monitor English use in classes. A number of students were interested in having more opportunities to speak and discuss in English with the instructor and others, but the large class size made this very difficult.

In addition, an agreement between my university and a university medical school in an English speaking country was canceled by the cooperating university which effectively eliminated a program that may have provided an environment for students who wanted to put their medical English skills into practice. Therefore, at the request of my institution, I began contacting universities around the world trying to form an alliance that would allow my students to go into the world and try to use their medical English skills and other medical skills they were learning. Unfortunately, after contacting over 30 universities it became clear that there were no universities willing to accept my request to allow our students to visit their medical schools for short term programs without going through formal matriculation procedures.

Subsequently, I began to contact NPOs which provided medical services to medically underserved groups of people in the hopes of finding a community with needs that could be served by my enthusiastic students. However, most of the NPOs also turned down the attractive offer to get hard-working Japanese medical students to join their ranks on the premise that they did not have the funds to undergo security screening of international students, a precaution they deemed necessary. Finally, we were able to form an alliance with an NPO in Washington State through a personal connection to one of their founding members. The NPO, called Corner of Love, is an organization that brings medical care to the underserved area of San Ramon in Nicaragua. Corner of Love has an open policy which welcomes volunteers from around the world and was willing to welcome my students after meeting with me.

Why Service-learning?

Service-learning was an appropriate fit for the needs of both the medical English students and the San Ramon underserved community (Figure 1). Some students were bored of large classes with little or no opportunity to speak. However, many students were interested in helping people and using the medical and language skills they were learning in the real world. San Ramon is a community that is among the poorest of the poor in Nicaragua. The people of San Ramon live on less than 1 US dollar a day, even lower than the World Health Organization's definition of poverty which defines poverty in monetary terms of living on 2 US dollars a day.

Why service-learning?

Community need



Student need



Figure 1: matching student and community need

Purpose

The main purpose of this SL program was to provide a venue for the use of medical English and other skills learned by Japanese medical students. However, through this international SL, students would be learning about civic responsibility and would have an opportunity to improve their self-esteem. Beyond the English the students would learn about poverty, different medical systems, clean water, parasites, and education needed in impoverished countries. In addition, students would be learning about themselves and their abilities. As shown in Figure 2, SL takes into account the interests of students, the academic content (which varied depending on the years of medical training), and the needs of a community.

Theoretical Structure of SL

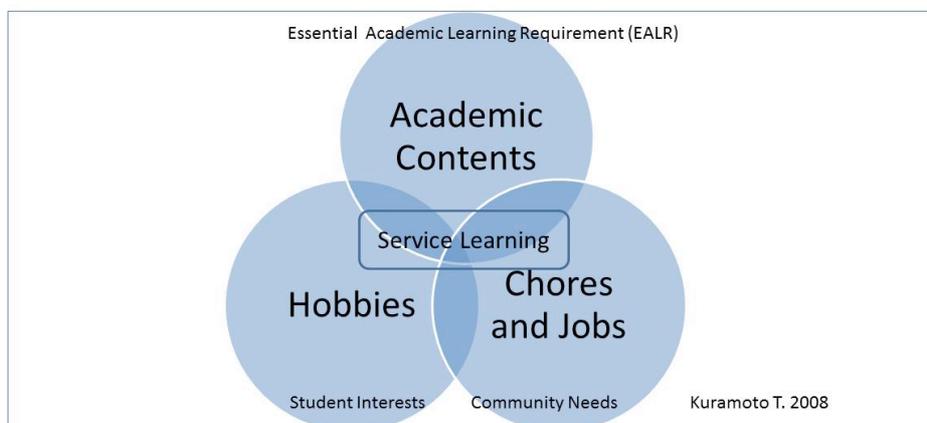


Figure 2: Structure of service-learning

For this presentation, we analyzed data from student questionnaires and journals in an attempt to answer these three questions. Below are sentences written by students that related to the questions asked. All answers are included just as they were written by students without corrections.

1. Did the service-learning improve student learning motivation?

- The medical treatment is sometime more effective than medical cure if we could understand the background of medical and social issues, and our own talents and limitations. I have to study pathophysiology more.
- We learned more medical knowledge and values through Nicaragua volunteer activities (S-L).
- Why did I come here? I must be much more active. Today, I felt worthless, but smiles of children encouraged me. Tomorrow, I would like to do something more meaningful.
- “She said that allergy gave him headache, and gave him histamine 1 blocker. Honestly, I could not agree with her because I had never heard allergy cause headache. I have to study pathophysiology of allergy.
- I am a passive person and I wanted to adjust (improve) new situations and real world. Also, this is precious experience for me. So I proactively try to communicate with local people with Spanish and English or body language.
- The community are always in need for medical care. Poor sanitation, after seeing the situation, my motivation for being involved in the community has definitely changed.

Recognizing their own limitations led students to want to learn more. The above statements show a desire to study and learn more after the SL experience. Therefore, we believe that the SL experience was motivating to the students.

2. Did the service-learning help students improve their English skills?

- We heard many Americans talking with each other in the bus, but I could not understand their English, which worried me.
- Knowledge of idioms is much more useful than knowledge of complicated words when we talk with natives [*native speakers of English*].
- It was not only a language barrier but also a mind barrier that made it difficult for me to communicate with foreigners [*native-speakers of English*].
- I followed Dr. Kirby who would see a patient with ganglion on the back of her hand. He removed the contents of the ganglion with syringe, and packed the scar.
- Later, he told me that we should ask patients with chest pain not only when they felt the pain but also whether they were sweating when they felt the pain in addition to whether they had dyspnea. But, I wondered if there was anything that we could do for the patients who might have angina pectoris. In Nicaragua, we could never know which coronary artery was obstructed. All we could do might be to talk them out of exercising. We saw some patients who had problems in the vein of their legs such as the patient with vascular spider and the one with venous malformation.
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We realized that without an instrument measuring English levels before and after the SL experience there was no way to quantify English improvement. Therefore, for future investigations we would change this question to ask whether the experience motivated participants to continue learning English and in what ways. In these comments by students, you can see that students are discovering their own weaknesses and determining the importance of particular expressions in communicating well in English. Furthermore, you can see the use of medical English words they have learned in class.

3. Is it possible for beginning medical students to effectively serve in a rural clinic?

- After this trip, I got to know that ability to get physical findings is much more crucial than ability to read results of examinations (X-ray photographs and ECGs) .
- At first, I did not know what I should do because of my poor ability to listen to English. After watching other volunteers working, however, I could understand what I should do.
- I worked with Tanya who saw patients. I wrote prescriptions in Spanish following examples which she had written before.
- So, I wished I had learned how to get physical findings in addition to knowledge of parasitology and dermatology before the trip.”

Through these comments, we saw that students were, again, discovering their own weaknesses. However, they were also discovering ways to cope and overcome their weaknesses. They learned new skills by watching and learning from others. In addition, I observed the students at work and saw clearly that they were able to serve effectively at the clinics under the supervision of other COL staff and volunteers.

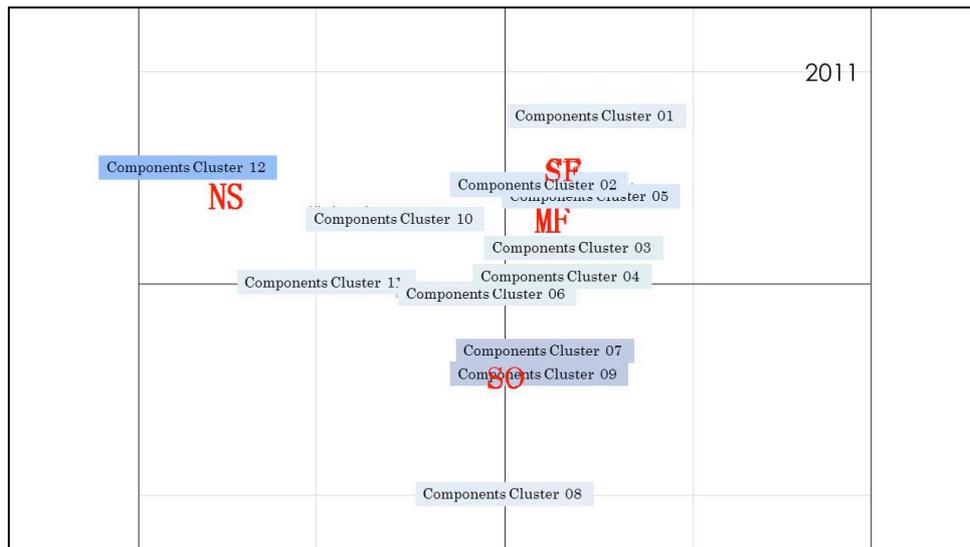


Figure 3: Additional analysis through text-mining

Text-mining of Student journals

We analyzed 10 student journals after the 2011 team service-learning activities in Nicaragua (Figures 3, 4). The questions students were asked to address in their journals were: “Looking back at the expectations you had before the trip, how did the reality of the situation match your expectations?” and “Is there anything you wish you had known more about before the trip?” The student answers fell into the following 4 categories. Student Factors and Impressions (SF), Medical Factors (MF), Student Opinions (SO), and the Nicaragua Situation (NS). These four components gave use a clear picture of the main themes students wrote of in their journals.

Text-mining of Students’ open-ended questionnaires

Students	Questions and Answers of Students	Keywords
	1. What have you learned about yourself through this experience?	1. What have you learned about yourself through this experience?
A	I noticed that I liked talking with local people by using local language. (In this trip, Spanish) When I communicate with them by using only simple words, body languages, and smile, I really enjoy doing this.	local language, Spanish, communicate, body languages, smile, enjoy
B	Nicaragua does not have a healthcare system that serves equally for the whole country. Seeing that most of the people don't have the opportunity to receive proper medical care, I recognized that I was taking medical care for granted. Living in a country like Japan makes it hard for us to see and know the situation in other poor countries.	Nicaragua, healthcare, opportunity, medical care, recognized, granted. Living, Japan, know, situation, poor
C	About myself, that I can communicate with people with a little words. I speak little of Spanish, but I was able to talk and play a little with them.	myself, Spanish, able, talk
D	I can't speak English. I can help people in many ways.	can't, English, help
E	I've learned it is important for me triumph into the new situations. I can get a lot of precious experiences by trying various works in this trip.	important, new, precious, experiences, trying, trip.
F	How important the relationship between government and NGO, when NGO want to do something.	relationship, government, NGO, something.
F	We have to adjust or create new standard line (about living, Hygiene ,disease,financial.etc ···), when we do some project for the villagers in other countries. I thought Its completely different thing about everything, if the country changed. It is like CM and G.	adjust, create, standard, living, disease,financial, project,different
F	How important to discuss with other team member. Through the discussion, We can make our opinion more smartly	discuss, opinion
G	The biggest thing was that I almost didn't know anything about the real world. The things I see here in Japan is not a matter of course, for example clean clothes, clean houses, clean water etc.	biggest, know, real world, matter, clean
G	Another thing was that I hood to be more proactive toward new things because I was passive to most of the things and happenings in my life.	proactive, passive, life.
I	I have learned the difference of Nicaraguan and Japanese medical treatment	difference, Nicaraguan, Japanese medical treatment

Figure 4: Manual text-mining of student answers to question 1 in 2014

Manual text analysis of student answers to question 1 (Figure 4) produced two categories as shown in the following examples.

(1) Personal development

“I am passive person and I wanted to adjust (improve) new situations and real world. Also, this is precious experience for me. So I proactively try to communicate with local people with Spanish and English or body language.”

(2) Deepened awareness of social issues

“The communities are always in need of medical care. Poor sanitation, After seeing the situation, my motivation for being involved in the community has definitely changed.”

Conclusion

This international service-learning project has provided students with an invaluable experience which successfully connected the classroom content from medical English class and other skills to the needs of a community. We found that students were 1. motivated to increase their knowledge in both English and medical subject areas, 2. able to see their own English language weaknesses and strengths, and 3. capable of effectively serving in a rural clinic even as beginning medical students.

As practitioners we have also learned that it is important to think outside of the box when trying to provide educational opportunities for our students. The original request to find a place for students to observe at an English speaking medical institution led to the search which eventually evolved into our current SL in Nicaragua program. It was a winding and sometimes frustrating road, but has brought about an opportunity for our students to work alongside medical care workers and actually help people in need in a way that we never would have imagined if not for the obstacles we met along the way.

In Japan we have a saying 可愛い子には旅をさせろ (kawai ko ni wa tabi o sasero), which means you should send your beloved child on a journey. As we continue to send our beloved students on this journey, we believe that it will provide them with a means to feel connected to the community, their own purpose in life, and the world.

Acknowledgment

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