Accumulation and Reflection Utilizing e-Portfolio: Global Health Leadership Program at the University of Tokyo

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Abstract: The Global Health Leadership Program at The University of Tokyo aims to train doctoral and post-doctoral students studying in Japan to develop their leadership capacity and prepare for future careers in global health. In 2012, the program decided to implement an e-Portfolio system in order to i) enhance the quality of students' learning experience by making sure students accumulate their work effectively and by facilitating self-reflection exercises and ii) streamline the workflow of staff and faculty and make the operation of the program more efficient to meet rising interest and demand. This paper discusses the background of the Global Health Leadership Program, reasons for the implementation of an e-Portfolio system, and how the program achieved its objectives by utilizing different functions of the system.

Keywords: e-Portfolio, global health, leadership, medical education, post-graduate education, internship

Introduction

The University of Tokyo has approximately 14,000 undergraduate students and 20,000 postgraduate students across five campuses. The Global Health Leadership Program ("GHLP") is based on the university's Hongo campus under the Global Health Policy Department at the Graduate School of Medicine.

GHLP is an all-English program to help doctoral and post-doctoral students studying in Japan to develop their leadership capacity and prepare for future careers in global health. Founded in 2010, the program mission is to develop future global health leaders, who will contribute to enhancing the quality of human life. GHLP describes the characteristics of future leaders in global health in the following ways:

- Passionate and proactive in solving global health issues
- Equipped with the thinking and communication skills required to excel in global settings
- Open-minded about different values and ideas
- Acting with integrity and professionalism

In 2012, GHLP decided to implement an e-Portfolio system with the goal to enhance participants' learning experience throughout the one-year program, which includes academic lectures and internships. This paper discusses the objectives of GHLP for the use of an e-Portfolio, and the impact and outcomes that the program has seen from its implementation.

1. Characteristics of GHLP

Global health is an area of study, research and practice that focus on health-related issues (e.g. infectious disease, lifestyle diseases, drug development) worldwide. With a growing attention to the vast potential for global health to become a long-term strategy for the improvement of health, the University of Tokyo established this program to develop medical professionals that i) hold both a keen specialized insight and interdisciplinary knowledge, ii) have international perspectives, iii) embody the spirit of academic inquiry, entrepreneurship, and leadership, iv) have high level communication skills and psychological endurance, and v) can advance social innovation.

GHLP accepts 30 students every year with funding from the Japanese Ministry of Education, Culture, Sports, Science and Technology. Most of the participants are doctoral students and post-doctoral researchers, but several of them are master's level students or working professionals. Previous participants amount to 77, and they represent 18 different countries with various specializations. The diversity of the student body is one of the unique and most important aspects of GHLP. This is because it will familiarize the students with the diversity of cultures and specializations that is usually found in the world of global health.

In order to develop such talent, GHLP offers a comprehensive program that combines i) a rigorous academic training, including an intensive lecture series given by world leaders of global health, ii) a three-month-long internship during which students put their learning into practice, and iii) a dynamic learning community, which lasts during the lecture period, internship, and even after graduation. Personal counseling spans across all these projects, and the students receive attentive mentoring from the GHLP faculty members, who advise them on internship placement and career development.

2.   Implementation of manaba

In 2012, GHLP decided to implement *manaba*, a cloud-based collaborative e-Portfolio system, which integrates functions of e-Portfolio, course management, and social networking within a defined professional space. GHLP was encouraged to implement an e-Portfolio system after hearing a talk about effective use of e-Portfolios from a professor at University of California, San Francisco, one of the global hubs for global health education.

In addition, GHLP was starting to be recognized as the only English-based program in Japan that focused on global health, innovation, and leadership, and received 120 applications in 2012, four times more than the enrollment limit. As attention to the program grew, the workload of the staff and faculty also rose rapidly, and it was essential for the members to streamline the workflow and make the operation of the program more efficient.

3.   Use of Different Functions

The three main objectives of using an e-Portfolio, according to the GHLP, were accumulation, self-reflection, and communication. The program decided to first focus on accumulation and self-reflection.

Before the program commencement, application materials of the applicants were submitted, organized and shared inside *manaba* only among the staff and faculty who were members of the admissions team. It was a secure and efficient way to collect application materials from the applicants and review them as a group. Needless to say, security was a very important feature when choosing the system.

From the students' standpoint, the portfolio space accumulated their application materials, reading materials for the classes, assignments they submitted, and surveys they submitted after the lectures. The implementation of the system was well-received by the students as it became a one-stop location where they could always return and reflect on their own progress over the course of the program. *manaba* also became the go-to place for reviewing past materials, especially when several lecturers returned to give additional sessions.

From the faculty's standpoint, they could access each student's portfolio and review the learning trajectory of the student in an organized manner. For instance, the information accumulated inside the portfolios provided faculty members with insights, such as students' strengths and challenges, to further engage in discussion during mentoring sessions and have deeper conversations about internship placement and career goals. Having a portfolio of academic records was truly essential in providing attentive advising as part of the program.

Finally, from the staff's standpoint, they were able to reduce the amount of time required to organize, save, and collect all the assignments from the students. Before the implementation of the system, assignments and reading materials that were distributed to students were easily lost in a pile of emails. However, by collecting their assignments and setting it so that the responses were automatically stored in each student's portfolio, the workflow became much more efficient. Additionally, being able to organize the assignments and attaching explanations inside the e-Portfolio gave each task a context and a structure that emails could not provide.
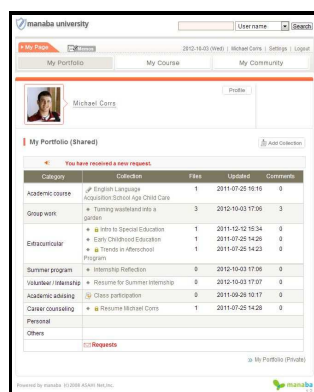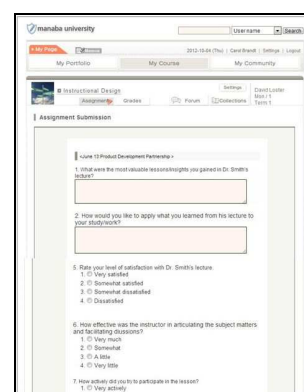
Fig. 1. Sample screenshot of a student portfolio

Fig. 2. Sample screenshot of an evaluation survey

In the academic classroom-based component of the program, students were asked to read approximately one hundred pages before each class. In addition, each lecturer prepared presentation materials and slides. All of these materials were uploaded onto the e-Portfolio system, from where students could access, download, and print them at their convenience. Assignments, such as academic papers and reflection comments, were also assigned and collected through the system. Once the assignments were submitted, they were automatically stored into the students' respective portfolios. In addition, faculty and staff could check which students had already accessed the reading materials or assignments. This function enabled the program to promptly identify and follow up with the students who may require more support or encouragement, and also added an insight into the engagement levels of each participant.

GHLP also conducted evaluation surveys after every lecture by using the system. The questionnaire was designed in a way that encouraged students to reflect on themselves by asking them how they imagined utilizing the leadership and innovations skills they learned in the lectures for their research and work. The surveys also asked students to give

feedback on topics that were difficult to understand and aspects that could be improved in order for the organizers to assess each of the lectures. The survey responses were also stored into students' portfolios for them to review in the future. The implementation of this system enabled the GHLP staff to collect the data immediately after the lectures were delivered, share the feedback with faculty and lecturers while their memory was still fresh, and hold discussions regarding the program to be offered the following year.

Following the program's philosophy to nurture long-term relationships in a community of global health leaders, many GHLP alumni returned to the program in the following years and audited one or two classes. In order to give the auditors access to appropriate reading materials and assignments for selected lectures, the staff issued temporary accounts that the alumni could use. The program benefited from the flexibility to scale up and down, which a cloud-based application could offer. Feedback from the alumni on the use of the e-Portfolio system was also positive regarding the ease of use and the instantaneous accessibility to necessary information. Alumni could also share their experiences of participating in internships and conducting research with the current students through *manaba* and contributed to the lasting community that GHLP had hoped to form.

As discussed above, the e-Portfolio system at GHLP has been used and is being used in a myriad of ways to promote students to accumulate their work effectively and to reflect on the progress they made so that they can have a comprehensive understanding of their learning experiences at GHLP. The importance of the e-Portfolio is that it provides a holistic approach to get insights into one's own learning experience, which involves not only academic lectures, but also practical internships in global health sites (mostly outside of Japan), and individualized mentoring. In other words, the portfolio becomes a mirror that allows students to visualize their development. The students can view themselves objectively inside the system and clearly review what they have accomplished and the skills and knowledge they have acquired. This continuing process of self-reflection through e-Portfolio brings about an essential value for students to become effective leaders in the global health field.

Acknowledgements

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