Chapter 8
The Use of E-Portfolio for Outside Classroom Learning

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Abstract This chapter presents a case study on the use of e-portfolio for learning in an outside classroom experience in a university in Hong Kong. It involved two students who were members of an intergenerational learning community where they engaged problems and issues, and work collaboratively to bring about changes and improvements to the community. Together with the coordinator of this community and with the use of Weebly, the students built an e-portfolio which provided a platform for documentation, reflection and collaboration. Interviews with the participants highlighted the contribution of the e-portfolio to students' learning and the development of communication, teamwork and creativity skills. The portfolio's framework and context were regarded as facilitative for meta-cognitive reflection and affective learning while the use of a free and user-friendly platform not only was well appreciated but made the process more efficient.

Keywords E-portfolio · Learning community · Outside classroom learning · Reflection · Affective learning · Weebly · Higher education · Hong Kong

The use of electronic portfolio (e-portfolio) has been recognized as a means for enhancing student learning. E-portfolios could help to understand the goals students set for themselves, the ways they achieve these goals and their relationship with institutional goals (Terheggen et al. 2000). Apart from the product which showcases students' skills and knowledge, the process of creating e-portfolios facilitates students' planning, organization and information management and presentation skills necessary for today's digital world (Abrami and Barrett 2005). With the development of new technologies, e-portfolios serve the purpose of interaction of learning on top of evidence collection and reflection (Bhattacharya and Harnett 2007). With all these advantages, e-portfolios can facilitate the development of lifelong learning (Bhattacharya and Hartnett 2007), which is a significant attribute of university

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graduates. As stated by Barret (2007) "with the widespread dissemination of ICT in homes and schools, and the many software tools available to support development, the electronic development is becoming a viable option for dynamically documenting learning and reflection across the life span" (p. 10). Yancey (2009) has found that compared to print portfolios which are mostly course-based, e-portfolios spread to the entire curriculum as well as to outside experiences. In their study on the use of e-portfolio among higher education students, Bhattacharya and Harnett (2007) developed a tool for students to evaluate their development of skills and competencies during formal, non-formal and informal learning. Formal learning refers to the structured education system, whereas non-formal learning denotes organized activity outside the formal education system which aims at achieving certain life skills, informal learning takes place through experiences in various settings and contexts. The present case study focused on outside classroom experiences involving non-formal learning, which took place as part of a specific community engagement project within the Faculty of Social Sciences at the Hong Kong Baptist University.

While portfolios are used for assessment of student learning, arguments were made that the focus on assessment could overshadow the learning process and eliminate students' voices. Barret (2007) has distinguished between portfolios used for assessment of learning and those that support assessment for learning. Whereas the former is prescribed by the institution, structured around a set of outcomes and scored for providing quantitative data for external audience, the latter centres on the learner's engagement and choices. When used as a tool for assessment for learning, the portfolio's purpose and content are determined by the student and they are reviewed by the teacher to provide feedback for enhancing learning. Underpinned by the notion that "a portfolio that is truly a story of learning is owned by the learner, structured by the learner, and told in the learner's own voice" (Barret 2007, p. 441), the present study examined the use of e-portfolio to facilitate students' learning through telling their own stories as members of outside classroom learning community. The following section described the project which served as the context for developing and implementing e-portfolio.

Learning Community Project as Context for E-Portfolio

E-portfolio was developed as a mechanism to enhance student learning from their participation in a project entitled: "Building learning community through a transdisciplinary multi-layered approach". This 3-year project which was funded by the university Strategic Development Fund established a multi-layered intergenerational learning community consisting of academics and professionals, university students, older adults in the community and secondary school students. Using a transdisciplinary approach, participants were empowered to engage problems and issues, and work collaboratively to bring about changes and improvements to the community.

The project was underpinned by the university commitment to whole person development and mission of knowledge transferred to the community (Hong Kong Baptist University 2014). By providing the platform for students to initiate and undertake projects within their community with academic support and guidance, the project aimed at facilitating their development of attributes including: responsibility, citizenship, independence, problem solving skills, and readiness to lead, serve and work in a team. The project also provided opportunities for staff–student collaboration to engage in public and community service.

The establishment of the Community of Practice (CoP) involved a process of exploration, inquiry, learning and identification of community needs, and building a common interest under the theme of "Healthy Lifestyle and Well-being". The university students who were at their first and second year of study, became Healthy Living Ambassadors (HLAs) who together with staff and professionals led a series of activities with older adults in the community. These older adults' age ranged between 65 and 90 years old. They lived by themselves and attended integrated service centres in two places within the district. Activities included stretching exercises, bag making, fun adventures, new dumpling ideas, happy memories and a graduation ceremony. The students were assisted by secondary school students to whom they served as mentors. To ensure that learning took place, students took part in on-site visits and seminars provided by professionals and were empowered to undergo an action learning process throughout their involvement. Each activity included brainstorming, planning, rehearsal and feedback, action and reflection while adopting the transdisciplinary three-layered approach: university staff and professionals, university students and secondary school students.

To facilitate the community process, students were asked to complete reflective journals and also to participate in reflection sessions. Students reflected on the main things that they learned, the questions that they had, the problems they encountered and the ways they solved them. Students also shared their feelings and thoughts about community engagement and learning and their accounts provided a holistic picture of their experiences as members of the learning community.

The E-Portfolio Process and Model

The idea to use e-portfolio was initiated by the coordinator of the learning community project (hereinafter referred to as Coordinator) who is a professor of education and who has been a member of a CoP called: "CoP Reflect", which aimed at the introduction and development of university-wide use of student e-portfolios to support the achievement of the university graduate attributes. During the regular meetings, CoP Reflect members have shared their experiences of using e-portfolio in their classrooms and worked collaboratively on ways to develop measures for assessing learning though this mechanism.

Recognizing the benefits of e-portfolio in formal classroom learning and appreciating the need to provide students with an interactive platform for reflecting

on their learning community experiences led to the idea to try it out. Although the existing use of reflective journal served the purpose of learning about students' experiences and facilitated the project flow, the reflective journal did not include an interactive component. It was hoped that utilizing e-portfolio in this context could further facilitate students' learning by empowering them to create their own platform and adding an interactive option.

Since it was the first time for the coordinator to use e-portfolios with students, and there was a need to look into the use of this mechanism in addition to the existing reflective journal, it was decided to try it out with students who took part in the project from its establishment. After discussion with the coordinator about the proposed project and students' involvement, two students from two different departments showed interest in joining this initiative. Students were also invited to provide their feedback on their participation after the end of the project. They were enthusiastic to create e-portfolio on their involvement during the third year of the project and they further agreed to be interviewed to gauge their feedback on the use of this portfolio.

Inspired by Zubizarreta's (2004, 2008) simple model of learning portfolio, the coordinator decided to build on it for the development of e-portfolio. The model consists of three fundamental components: reflection, documentation and collaboration. The reflection focuses on learning by looking at how, when and where it occurs. The documentation part provides a platform for students to show evidence of their learning through different forms ranging from their own writings to pictures and creative displays. The collaboration refers to connection with a mentor who could facilitate students' meaningful reflection. This model aligned very well with the model of the outside classroom learning community where all members have been engaged in a collaborative learning process (Sivan et al. 2016). This similarity led to the idea to regard the students' e-portfolio as a small learning community within the existing large outside classroom learning community.

The e-portfolio process included a preparatory phase, during which the coordinator established a suggested framework for the e-portfolio, and two meetings with the participating students. In the first meeting the framework was presented and discussed. After deliberation, a framework for utilizing the model and its related reflective questions were consolidated. Based on Zubizarreta's (2008) list of questions, a total of seven questions were posted, these are: What have I learned, when did I learn, how did I learn? How did this learning contribute to me? Was my learning coherent, relevant, applicable and practical? What new things have I discovered about myself? What were the best things of my learning? What were the disappointments of my learning? In what ways has my learning been valuable? References were also made to the university graduate attributes for reflection on learning (Centre for Holistic Teaching and Learning 2015).

During the second meeting a discussion was held on the platform to be used for the project. To facilitate the discussion, the coordinator invited the CoP Reflect project officer who had a profound knowledge and experience in e-portfolio, to share and demonstrate e-platforms. After deliberation it was decided to adopt the Weebly platform and one student took the initiative to establish the website.

The idea was to set it as a channel for a collaborative e-portfolio, where everyone could write, reflect and provide feedback and comments.

The website included four sections. The first section described the learning community project. The second section stated the objectives of the e-portfolio and the reflection questions. The third section called: "Our Members" introduced the three members involved in the e-portfolio. The last section of Documentation and Evidence aimed to show some evidences of students' learning. In its description it stated that these evidences could be pictures, writings, feedback, creative displays and all types of products or proof that demonstrated learning and that students could describe in their own words how they learned. Since its establishment, the website was utilized for one semester during the last stage of the outside classroom learning community experience. It started with students documenting and reflecting upon their experience and followed with the coordinator's feedback which led to students' new inputs.

Methodology

The study adopted a descriptive case study which is used to describe a phenomenon and the real context in which it occurs (Yin 2003). The case study involved the two students and the coordinator in their use of e-portfolio within the context of the outside classroom learning community experiences they went through. Participants' feedback on the use of e-portfolio was solicited through semi-structured interviews. Both the coordinator and students were asked to comment on their experience of using the portfolio for outside classroom learning and on the usefulness of the model and the Weebly platform. They were assured the confidentiality of their inputs. The interviews were conducted by a research assistant and were analyzed by three independent readers using conventional content analysis. After reading the transcripts and going through the coding and categorizing processes individually, a discussion was held to arrive at the main themes.

Findings

Five themes were identified in the interview analyses and they are presented below with their corresponding quotations.

Providing a Flexible Channel for Expression and Learning

Students regarded the e-portfolio as a means for expressing their feelings and for ongoing consolidation:

It's like I have something that has its physical existence, so you are not just putting your feeling in your heart but you have like some physical stuff to spell out what you have been thinking about. (Student B)

For me, this e-portfolio is not just only an activity logbook, but the continuous consolidation of my future career preferences and personality building… (Student A)

Comparing the e-portfolio to regular reflection in class, the coordinator added that the flexibility of the e-portfolio facilitated her role as mentor:

This time there was no need for a physical meeting, so in a way I have noticed that students when they have the free time to sit and write on their own, there are basically a lot of things that they can come up with. What I learned from this experience is that using this e-portfolio is much more flexible and perhaps allows students to reflect more. (Coordinator)

While flexibility was highlighted as an important advantage of using e-portfolio, it was especially appreciated within the context of outside classroom learning. Both students and the coordinator seemed to prefer using e-portfolio in that context over a formal classroom learning:

Unlike formal classroom teaching, outside classroom learning is often informal and it lacks an organized mechanism to evaluate the learning process and outcome of both teachers and students. An e-portfolio can record and let participants reflect upon their experiences instantly, and they can easily refer back to their entries (Student A)

In a classroom, the professors and teachers deliver the same stuff. And it's very uni-directional. They teach all the students the same stuff. But, in this e-portfolio, I think different people learned different things in this process, so we have different results. (Student B)

Since the project upon which students reflected was not part of a formal learning, the dialogue with the students was more open than a formal classroom learning and touched on personal issues which may not otherwise be reflected upon. (Coordinator)

References were also made to the small size of the e-portfolio experience which the coordinator found to be a great advantage in facilitating students' learning:

So I think the uniqueness of this experience is that it was a small size and it was a trial which provided a safe environment for all of us who used e-portfolio for the first time. It was a supportive environment to test it out. (Coordinator)

Cultivating Reflection

Reflection was identified as a significant benefit of the e-portfolio. References were made to self-reflection, reflection with the coordinator as well as learning from the coordinator's reflection on students' inputs.

I seldom have chances to have reflections with professionals. Normally I do have reflections but I reflect upon myself on diaries. This e-portfolio can organize my reflection with the Project Leader [Coordinator], in which the on-going reflection is worthwhile to my personal development. (Student A)

I would say I know more about myself—my personal trait—my personality traits because when I was doing those activities with the project, I was not going to think of what have I learnt and who am I. But, after writing these reflections, I am sort of like know more about myself because I will think about it and that links the activities to my life. For instance, like, I have written about my experience with my granny (Student B)

The lecturer [coordinator] has always given us a lot of her ideas on our reflections as well as some insights from her perspective and the portfolio worked well because when I just put on my reflection on the platform and I don't think and then I got the ideas so I referred to them and thought more. (Student B)

The Weebly e-portfolio is an on-going reflection process that teachers and students reflect upon themselves in a regular basis. It is a one-on-one reflection process and students would be able to get professional advices and I believe those suggestions will be very fruitful in future working occasions. (Student A).

The coordinator further praised the students for their reflection which helped her to understand them more and to get to know them better:

I read students' reflection and I praise the students because they wrote a lot, and I am happy to see that. I did not expect that they would write so much… I think what I learned from them is basically that they learned a lot of things about themselves and about their learning. They gained a lot of insights from their participation in this community project, about their own personalities, their own capabilities, how to work with other people, and also how to reflect and take some things out of that too and apply in other situations. (Coordinator)

Contributing to Whole Person Development

The experience of using e-portfolios enhanced students' knowledge and developed certain important skills which aligned with the University graduate attributes. These include teamwork, learning and communication, creativity and citizenship. Student A elaborated how the process enriched his knowledge:

Since teachers and students independently reflect without external influences, the relationships among them will be closed and this is important when it goes to lifelong learning, because both sides know each other for long and reflection outcome would become more precise and useful when time elapses. (Student A)

Student B related to the information technology skills:

Specific IT skills such as website management are acquired when users are fully committed into the portfolio. (Student B)

Students' communication skills were also enhanced through the ongoing use of English while reflecting on their experiences and communicating with the team, as attested by the coordinator's account:

About communication, my students had to write in English, and I think it's definitely provided them with a platform to express themselves in a language which is not their mother tongue. They reflected on their experiences in this out-of-class learning community and also responded to me as part of the mentoring process. Unlike writing academic papers,

here there was the communicative element which was highly facilitated through our interaction. (Coordinator)

Both students pointed out that the development of teamwork and citizenship were facilitated through ownership, reflection and sharing:

Because the conceptual framework of the e-portfolio was established by us, so I think it has the element of collaboration. Through this project and this reflection process I know more about the importance of teamwork. Because I start to understand that you cannot do the things on your own and you really need support from others. (Student B)

The whole reflection process encompasses sense of responsibility towards myself and the community in a long term manner. Between reflections, I have shown progress in terms of self-actualization that focuses on well-being and appropriate ways to know the society better, assist people and the needy and so on. The portfolio empowers me to continue serving the society by applying things I learned inside and outside the campus…it is also one of the responsibilities of university students. (Student A)

The coordinator also recognized the contribution of the e-portfolio to the development of team work. At the same time, she raised an interesting point related to the communication flow within the community:

By participating in this e-learning portfolio and sharing their reflections, students illustrated teamwork. At the same time, their reflection was mainly between me and them. Even if there were three of us, they referred to me and not to each other's input. Although they possibly read each other's input, there was not an interaction between them on the plat-form…Since they exhibited teamwork when we met, I do not see this as an issue. (Coordinator)

Participants' accounts also indicated that the e-portfolio facilitated students' ability to think in different ways alongside their ability to genuinely and authentically tell their stories:

The e-portfolio is a platform for students and teachers to think out of the box, since more or less it is a sandbox which allows users to make the portfolio entries more appealing, creative that readers would appreciate. (Student A)

I would say you can write whatever you like to write and just feel free to write what you have in your mind and your heart. Just write down the most authentic, the most genuine feeling on that spot. And I think that is a core-value of doing this e-portfolio—being genuine. (Student B)

While thinking critically and reflecting on their own experiences and how those facilitated their learning, students exhibited creativity. They showed their ability to think in a different way and to look at themselves and what they could take out of their experiences that could enhance their learning. Those are higher level qualities which may not be achieved in a regular classroom interaction. I saw their creative thinking in the stories they shared and the way they focused on their learning process on the top of the knowledge and skills they developed. (Coordinator)

Discovering Oneself and Preparing for Future Path

Students' found that the use of e-portfolio fostered their self-discovery and they also saw its potential contribution to their future learning and career. Student A emphasized lifelong learning, whereas student B also noted the personal growth:

> The e-portfolio acts as a bridge for students to attain self-actualization and observe the outside world. This portfolio enhances, enriches and improves my way of learning since it provides guidance in lifelong learning and future career path. (Student A)

> I think by knowing more about myself—by knowing more about what I like and what I don't like, I will make a better decision in the future. For instance, like, because I know I can interact well with old adults as well as secondary school students. And what I would like to do in future is to become a teacher. (Student B)

Both students referred to the future use of the portfolio for reflection and applications of the things they learned:

> When completing the e-portfolio, I sort of thought about what I have done when doing this activity. And it's sort of like, when I do it next time, I would make good use of the things that I have learnt and have been reflected on and I will apply what I have learnt in this reflection process to the things that I will do in the future. (Student B)

> The e-portfolio provides a knowledge base or time capsule for me and the mentor when both sides find queries and miserablenesses in a new working and/or learning environment. Without this platform, one may not easily organize his or her own merits and de-merits as experiences can be long and complicated and reflections are needed to keep things in mind. (Student A)

Facilitative Framework

All users further attributed the success of the e-portfolio to its underlying framework and its related questions which were collaboratively consolidated. In her account, the coordinator shared how the framework was established together with the students leading to students' active reflection:

> I think that the framework and questions facilitated students' learning….They actually liked very much the opportunity to reflect and get to know themselves better and to understand how learning took place and how they can make use of this learning process in the future. So on the whole this framework and the questions seem to be quite good… the questions seemed to be very useful to them and they actually responded to them in their writing, so it worked very well. (Coordinator)

Students especially valued the questions and the mentoring provided by the coordinator through the reflection process. One student said: "The guiding questions were important for me, they constructed my reflection in a more organized way" (Student B). He further appreciated the coordinator's comments:

> I gained insights from what the lecturer [coordinator] has written and kept asking me, what I have been learning and personal insights and knowledge stuffs, and how can I transfer the knowledge and personal insights to the other aspects of my life. I think this kind of interaction allowed me to think more about myself and to think about the thing that are not related to the project. (Student B)

> The mentoring part is very important. I would like to see what—what she [the coordinator] thinks about…. I mean, because she is more experienced in doing this kind of activity. I would like to know more about her opinions. So I can learn from her. (Student B)

Student A also acknowledged the usefulness of the questions for his future career:

> These questions act as indicators for me to discover my strengths and weaknesses…the questions can examine and scan one's experiences and discover his or her strengths and weaknesses that can become references for individuals. Therefore the questions can be universally applied to other working and/or related occasions for all personnel to reflect, and to help the others in need if they face challenges in personal development. (Student A)

Weebly as a Valuable Platform

The Weebly platform was described as user friendly by both students and the coordinator. In general, all parties saw the advantages of using this platform when compared with paper work and other platforms. Some of the advantages raised related to accessibility:

> It's easily accessible, and you can do whatever you like to do on the platform. I think that it is a great platform. I don't think there is any drawback or disadvantage. It is easy to use, the presentation is quite decent and that is good. (Student B)

> Users can easily access the e-portfolio content simply by signing up to Weebly. Unlike traditional files, users can easily click the related materials of the website in an organized and quick manner. …teachers and students can directly access specific reflections and reply entries instantly, rather than the traditional way that people have to search files in a physical directory which wastes time and resources. (Student A)

> I like the Weebly very much because it's very friendly. You just go there and click and get the messages and then return, and then response to the students. So I think this was a very much facilitative factor to do this project. (Coordinator)

References were also made to the data storage and to facilitation of creativity in use of multimedia resources:

> Data would not easily be lost when it goes to Weebly. Unlike the traditional way that occasionally people may lose a certain amount of documents due to negligence or unknown reasons, specified contents in Weebly will not be easily deleted. Users can focus on the actual reflection matter rather than wasting energy on administrating tedious paper works and storage management. (Student A)

> Annotations and multimedia content can be attached into Weebly. It is very redundant and sometimes boring for both teachers and students when it comes to a mere paper reflection, Weebly provides a favourable and user-friendly way to include multimedia resources like Annotations, clips, emojis, etc. in order to make the reflection funnier and easier for all readers. (Student A)

The coordinator also described the advantages of Weebly over other platforms she used for her own teaching portfolio:

> For me, Weebly was very friendly. When I had the experience of doing my own teaching portfolio I came across several other platforms that for some reasons were not so friendly. There, the process was more complicated and it took more time to do everything and at times I could not upload the materials. Weebly was very smooth and very friendly from the very beginning. And the fact is that I could just go in and key and then save, that was very good. And I had a good feeling that I could do this by myself as well. (Coordinator)

The coordinator added that the fact that Weebly was an open website did not seem to deter students from using it, which encouraged her to reflect back to the students without hesitations. At the same time she suggested that people should consider this issue when sharing their own accounts:

> I know that it's opened to the public, and interesting enough, the students didn't have a problem with that….If somebody is a more private person, then I would advise him or her to be aware that it is opened to the public…when I read the students' accounts, I saw that they were actually very open and they shared very intimate things about family, about interaction, about their feelings and their personality change. So I don't see any disadvantages at this stage for my trial of e-portfolio with students. (Coordinator)

Alongside the favourable views of Weebly, one student raised the need for backup of their work since it is an open platform. He also suggested to carefully set the e-portfolio layout for its best utilization. The student further raised issues related to safety, privacy and convenience when comparing Weebly to another platform utilized by the university:

> Unlike Weebly, Moodle is safer in terms of privacy and data preservation as the University has subscribed this platform for a long time. Unless the e-portfolio is fully open to public, actually Moodle can perform most tasks that Weebly could do. Teachers and students can reflect independently on the discussion forum under a course on the Moodle platform. (Student A)

Discussion

The case study presented in this chapter is a small scale trial of using e-portfolios for learning through documentation, reflection and collaboration involving one academic staff and two students who together have been engaged in an out of class intergenerational learning community. Utilizing Weebly as their platform, participants have created the e-portfolio collaboratively as a small learning community within a larger community involving university students and staff, elderly and

secondary school students. All parties were new to e-portfolio and were motivated to try it out. Their accounts highlighted the usefulness of e-portfolio for enhancing learning, cultivating reflection and developing knowledge and transferrable skills for lifelong learning and future career. Trying out this e-portfolio has brought to light several issues related to the aim, context and process of using e-portfolio for non-formal learning.

The e-portfolio centered on students' learning. It aimed to develop their ability to better understand the way they go about their learning and how they can best utilize it for their personal growth. Unlike the use of portfolio for assessing students' learning outcomes, the model adopted in this project emphasized the use of a learning portfolio which focused on learning how to learn rather than learning for assessment. Students' views attested to their ability to be engaged in meta-cognitive reflection on their learning which is different from refection on the evidences they provided (Dysthe and Engelsen 2011). It can be argued that the reflection students were involved in during the creation of the e-portfolio promoted their meta-learning (Mummalanei 2014).

The context in which the e-portfolio was used provided a very supportive and safe environment for students' expression and reflection. All participants saw the outside classroom environment as having certain benefits over formal classroom learning for employing e-portfolio. They opined that this context contributed to their documentation and reflection on a range of involvements and various personal aspects which might not have been manifested within a regular classroom context. The intergenerational learning community, which involved interaction with different people through a range of activities related to healthy living and well-being, provided ample opportunities for students to relate to the affective domain of learning which despite its significance for learning, is hardly manifested in formal classroom learning.

Students' involvement in establishing the portfolio framework and designing its website seem to contribute to their learning and satisfaction. The process facilitated their sense of ownership which they might not have in a regular classroom learning. Asking the students to design their website and introducing them to Weebly which they did not use before also enhanced their digital knowledge and skills.

Another essential component in the e-portfolio was the interaction with the coordinator. Students' positive feedback on their coordinator's comments demonstrated the importance of including an interactive function in the e-portfolio. Originally, this function aimed to facilitate both student–student and student–coordinator interaction, however, in practice the interaction was limited to student–coordinator. This phenomenon was also found in the larger outside classroom learning community (Sivan and Tam 2015) and could be attributed to the Chinese culture where power distance plays a significant role (Hofstede 2011). Students followed the coordinator and looked up at her for feedback and comments. At the same time, it is also possible that the lack of student–student interaction had to do with the portfolio being rather an individual activity and students were more attuned to their own reflection. Further studies in other sociocultural contexts could shed more light on this issue.

The use of e-portfolio has contributed to students' self-discovery and to the development of knowledge and skills which are part of the university graduate attributes. These include learning, teamwork, communication and creativity. Students' accounts about their potential use of the e-portfolio in the future shows the significance of this tool for their lifelong learning and future development. These findings further support the need for providing students with channels for reflection on their learning experiences both inside and outside the classroom. While these attributes could be enhanced through formal classroom learning, students' and the coordinator's accounts attested to their continued online facilitation through a flexible channel that did not require classroom attendance. In today's digital world where youngsters use their virtual platform for communication, e-portfolio could be further developed as a regular online sharing and learning mechanism.

As a case study on the development and use of e-portfolio in non-formal out-of-class activity, the project involved two students and one coordinator. Although its findings cannot be generalized, they shed some light on the possible contribution that e-portfolio can make to students' learning as attested by participants' accounts. Whereas students' views may not be regarded as direct evidence of learning, their similarity with the coordinator's view seem to confirm that learning took place. Even though the e-portfolio process involved only three people, it provided a valuable platform for trying out this mechanism in a new setting. Oftentimes academics are recommending to start new initiatives small and keep them simple. The coordinator's feedback showed that starting small was an advantage especially when one does not have any experience in developing and implementing e-portfolio. The adopted model required the coordinator to continuously attend to students' inputs in order to ensure a smooth mentoring process. Students were asked to respond to reflection questions which they had not come across in their regular classroom learning. They were also eager to obtain feedback and learn from the coordinator. Since the content involved personal disclosure, the coordinator needed to be cautious when commenting. The challenge may be bigger if such an e-portfolio is used with a large class especially involving outside classroom learning experience that attends to both the cognitive and affective domains of students' learning. Talking about feelings may not be so easy but that is where awareness is heightened and doors are opened for personal growth. For those reasons, it would be good to use this portfolio after getting to know the students and establishing a good rapport with them. If utilized for reflection on outside classroom learning, it would be useful to start this experience with a small group of students so that ample attention could be given to them in the process of establishing and completing their e-portfolio. Last but not the least, there is a need to set time for preparing the framework, reading and commenting on students' input so as to ensure that learning takes place.

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