Chapter 2
Community of Practice: Building a Mobile Learning Community in a Higher Education Institution to Promote Effective Teaching and Learning

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Abstract With the fast development of mobile technologies, mobile learning has been adopted by more and more students and staff in higher education institutions. However, most students and staff tend to explore mobile learning as individuals, and there is a lack of systematic exchange of ideas and strategies related to mobile learning among them. This chapter reports on a project on building a mobile learning community (MLC) to promote mobile learning in a Hong Kong tertiary institution. The research questions are as follows: 'What are the key factors in building a successful mobile learning community?' and 'How can the effectiveness of the MLC be evaluated?' The key factors identified in building a successful mobile learning community are recruitment of community members, establishment of a mobile learning community website as a platform for exchange of ideas, organization of sharing seminars/workshops, making an impact on students' learning and on staff development. The evaluation of the effectiveness of the mobile learning community will also be deliberated. It is hoped that this chapter can provide some practical guidance and useful references for those who wish to establish a mobile learning community in their institutions in order to promote Scholarship of Learning & Teaching (SoLT).

Keywords Mobile learning · Community of practice · Higher education

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2.1 Introduction

In recent years, the fast development of mobile technologies (e.g., smartphones, tablets, and apps) has greatly enriched and assisted students' subject learning in higher education. In Hong Kong, the situation is even more favorable, as people can get relatively cheap data packages for smartphones with Internet access, and there is free Wi-fi service in many public places. In higher education, through mobile technologies, students can learn anytime, anywhere (Chan et al., 2006; Wong & Looi, 2011). They help to connect students' in-class and out-of-class learning experience (Lai & Gu, 2011), which helps to contextualize the learning and facilitate students' academic success (Kukulska-Hulme et al., 2011). It is reported in Wu et al. (2012) that mobile technologies have been widely implemented in teaching and learning diverse subjects at different education levels in recent years.

As English is the major medium of instruction in Hong Kong tertiary education, this study links mobile technologies with subject learning through English and showcases the vitality and creativity of tertiary students of different levels (undergraduates, masters, doctorates) and from different disciplines (science, social science, education, arts, and humanities) in mobile learning. A broad definition of mobile technologies will be adopted in this study: various mobile devices (smartphones, mobile phones, netbooks, laptops, iPads, Tablet PCs, MP3s/MP4s, etc.) connected to a network and equipped with online technologies (Ma, in press).

According to Wenger (2010), Community of Practice (CoP) refers to a group of people who share a concern or passion for something they do and learn how to do it better as they interact with each other regularly. The concept of CoP is built on Lave and Wenger's (1991) earlier work that draws on adult learning theories; for most people, learning takes place in a certain context where they interact with and learn from partners rather than in a traditional classroom where there is a clear student–teacher divide. The principle characteristics of a CoP are as follows: *a shared domain of interest (the domain); engagement in mutual learning and knowledge sharing (the community);* and *shared inventory of resources (information for the practice)*. As a fairly new learning theory, such CoP practices have been carried out in various sectors, including education, business, and sciences. Traditionally, these CoPs refer to naturally occurring phenomena as originally expounded by Lave and Wenger (1991). In recent years, there are gradually more studies where the CoPs are predesigned or organized to achieve some specific goals (Fung, Boushey, & Morash, 2014; Kothari, Boyko, Conklin, Stolee, & Sibbald, 2015) largely in the fields of health care. However, such predesigned CoPs with clear organization features are rarely reported in education, especially higher education settings where students and staff need to learn from their peers or colleagues, respectively.

As we can see, CoP practices match well a social constructivist approach in which learning is regarded as an ongoing process where learners make sense of existing knowledge and construct new knowledge via sharing, conversation, and negotiation within a supportive community (Naismith, Lonsdale, Vavoula,

& Sharples, 2004; Sharples, Taylor, & Vavoula, 2007). Naismith et al. (2004, p. 15) noted that learners can be "connected to a shared data network, further enhancing possibilities for communication. These devices are also used in a group setting, and so interactions and collaboration will tend to take place not just through the devices but also at and around them as well." In fact, network technologies have long been considered an important means in facilitating practices and sharing among CoPs (Johnson, 2001; Hoadley, 2012). Nowadays, the advent of the current mobile learning age greatly facilitates the formation of various online learning communities assisted by various ubiquitous and free mobile communication technologies and tools, e.g., Skype, Facebook, Line, WhatsApp, WeChat, and Google+. However, very few mobile learning activities designed by teachers or researchers support such learner-centered communication and collaboration (Kukulska-Hulme & Shield, 2008). Alternatively, there are reports only limited to some small technology-supported learner communities formed based on certain courses (e.g., Abdullah, Hussin, & Zakaria, 2013; Wang, 2014). These small learner communities are often temporary and of short duration, diminishing soon after the completion of the courses. Although it is a popular idea to view technology as an indispensable tool in supporting the practices of many CoPs, there is a dearth of studies where mobile technologies are seen as the core of the practices.

The current study reports how a predesigned large learning community was established within a higher institution where learners from diverse disciplines contribute, share information and resources, and learn together with the help of mobile technologies, which is not only seen as facilitating members' practices and communication but also playing a central role in advancing their learning. In order to shed light on future CoP research and share practical knowledge and skills with other learner community builders, this exploratory research strives to answer the following research questions:

1. What are the key factors in building a successful mobile learning community (MLC)?
2. How can the effectiveness of the MLC be evaluated?

As mentioned in Chap. 1, the Scholarship of Learning and Teaching (SoLT) has the chief goal of improving student learning. As one of the SoLT initiatives, the MLC aims to enable staff to change teaching practice and perform inquiry on the change, with the ultimate goal of improving student learning.

2.2 Research Design

Multiple methods were used in this exploratory study: survey, interviews, and document analysis. First, a project team was formed with expertise in mobile learning in different disciplines (language, linguistics, information technology, mathematics, education, etc.). Then, the project team met regularly (face-to-face or

via communication technologies) to understand information, acquire knowledge, develop instruments, and find solutions to emerging problems while building and researching into this MLC. The whole project was carried out in three phases:

2.2.1 Phase I: Literature Review, Team Meetings, and Investigating Potential Members

After a thorough review of the literature on community of practice and mobile learning, the research team identified and discussed a number of key issues and themes to be explored in this research. A systematic inquiry has been formulated via a series of project meetings. In order to learn about students' experiences and perceptions on mobile learning, a questionnaire survey was developed and piloted with a small number of participants. The finalized questionnaire was then sent out randomly to students from the Education University of Hong Kong (EdUHK) with 227 valid ones returned. Following the survey, 20 students were interviewed to obtain in-depth information regarding their mobile learning practices and preferences. Surveying and interviewing potential members provided the project team with valuable information in (1) their learning interest, (2) favoured learning activities, and (3) preferred learning resources. Such information was carefully considered in the next steps of building the MLC.

2.2.2 Phase II: Building the MLC Platform and Promoting the MLC

Through the literature review, team discussions, survey and interview results, a rich collection of student mobile learning practices was obtained, such as their favorite mobile devices for learning purposes, frequently accessed online learning resources, various learning apps and tools, strategies for self-regulating their mobile learning, and perceived difficulties associated with mobile learning. Based on such rich information, a mobile learning community (MLC) website was developed to host and share diverse mobile learning information and resources contributed directly by students. This website serves as the main platform to disseminate mobile learning information and, more importantly, attract and recruit MLC members. Two membership registration forms (for students and staff, respectively) were developed and hosted on the website in order to recruit more members. To further disseminate project outputs, a series of knowledge sharing sessions in the form of seminars/workshops on mobile learning given by students and staff were organized. Such meaningful and interactive sharings form the main learning activities for community members.

All MLC activities, literature review, project team meetings, survey and interviews, student and staff sharing, member reflections and online events via the MLC website, conducted in Phases I and II, were documented and analyzed in order to answer the first research question, i.e., What are the key factors in building a successful mobile learning community (MLC)? The data were mainly analyzed qualitatively in terms of coding and looking for patterns and themes.

2.2.3 Phase III: Evaluating the Effectiveness of the MLC

To evaluate the effectiveness of the mobile learning community, several sets of assessment tools were developed: (1) a questionnaire to collect participants' views on the various community activities organized by the MLC, i.e., various sharing sessions/seminars/workshops on mobile learning; (2) an online survey form to collect users' views on the MLC website; (3) evaluation of members' achievements, and (4) an evaluation form for evaluating the overall effectiveness of the MLC, which were completed by two invited experts in the field of mobile learning. All four types of data will be analyzed to answer the second research question, i.e., How can the effectiveness of the MLC be evaluated?

2.3 Findings and Discussion

Based on the literature review, the results of the survey and interviews regarding students' experiences and perceptions on mobile learning, and the views and comments collected about various community activities, the following key factors for establishing a mobile learning community were identified, and various strategies were adopted by the project team to address these key factors when forming a mobile learning community.

2.3.1 Key Factors in Establishing a Successful Mobile Learning Community

2.3.1.1 Strategic Recruitment of Community Members

Creating a critical mass is considered to be the first step of establishing a community of practice. This critical mass will take the leading role to organize various events and develop useful resources to promote mobile learning, so that the community will expand and grow healthily. As a result, in the initial stage of the project, six staff members at EdUHK who had been using mobile technologies proactively

in their teaching were identified, and a project team was formed. The project team members then identified around 30 students who were proactively engaged in mobile learning and recruited them to join the mobile learning community. From October 2013 to June 2015, in order to attract new members to join the MLC community, the core project team members organized numerous events and activities related to mobile learning, and by July 2015, 64 staff and 252 students had registered as members of the MLC. Only through all these active members could the mobile learning community play a significant role in promoting mobile learning at EdUHK. With continuous effort, it is expected that more and more staff and students would join the community.

2.3.1.2 Creating a Rich Information Sharing Centre: Building a Mobile Learning Community Website

Based on the surveys and interviews, students wished that valuable mobile learning resources and successful mobile learning experiences by students and staff could be shared through an MLC website, so that community members could exchange ideas via this online platform. After sustained effort, in August 2014, a mobile learning community (MLC) website (http://corpus.ied.edu.hk/mlc) was established and launched. This online platform allows community members (students and teachers) to share their valuable insights and to disseminate good practices to other students and teachers who are interested in mobile learning. Again, after studying survey and interview results, it was decided that the website would feature the following sections: Activities, Listen & Read, Watch, App Reviews, Recommended Apps/Websites, M-Learning Guide, and Others (see Fig. 2.1).

MLC Home page

The MLC home page features an introduction that informs the visitors of the different resources available on the site. Visitors can also click on the "membership" hyperlinks (for students or teachers) to fill in the membership form and become a member of the MLC, and they can fill in an evaluation form as well to evaluate the MLC website. Latest news and events of the MLC are also announced on the home page in the format of an animated scrollbar. Quick Links are provided as well so that members can get access to various sections of the website easily.

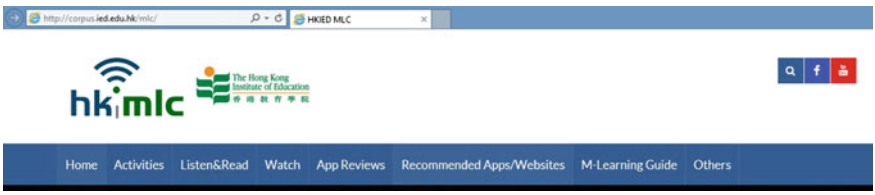

Fig. 2.1 Menu bar of the MLC website

Activities

The activities section contains detailed descriptions and posters about present and past community activities, such as seminars, sharing sessions, mini conferences, workshops, and competitions related to the topic of mobile learning. If members missed certain community activities, such as a seminar on mobile learning, they can go to the past community activities page and get access to relevant information related to that activity (seminar or workshop).

Listen & Read

The "Listen & Read" section features personalized mobile learning stories written by academic teaching staff from different departments (e.g., mathematics and information technology, linguistics and modern language studies, and health and physical education) and students at EdUHK from different majors (e.g., social science and language studies). These personalized learning or teaching stories document students' and teachers' innovative use of mobile apps or Web technologies in facilitating their learning and teaching. Audio clips of students describing their mobile learning experiences are also included. Figure 2.2 shows a mobile learning story shared by a student.

Watch

The "Watch" section hosts a series of videos featuring students' personalized experience in using mobile apps to facilitate their learning, and academic staff's

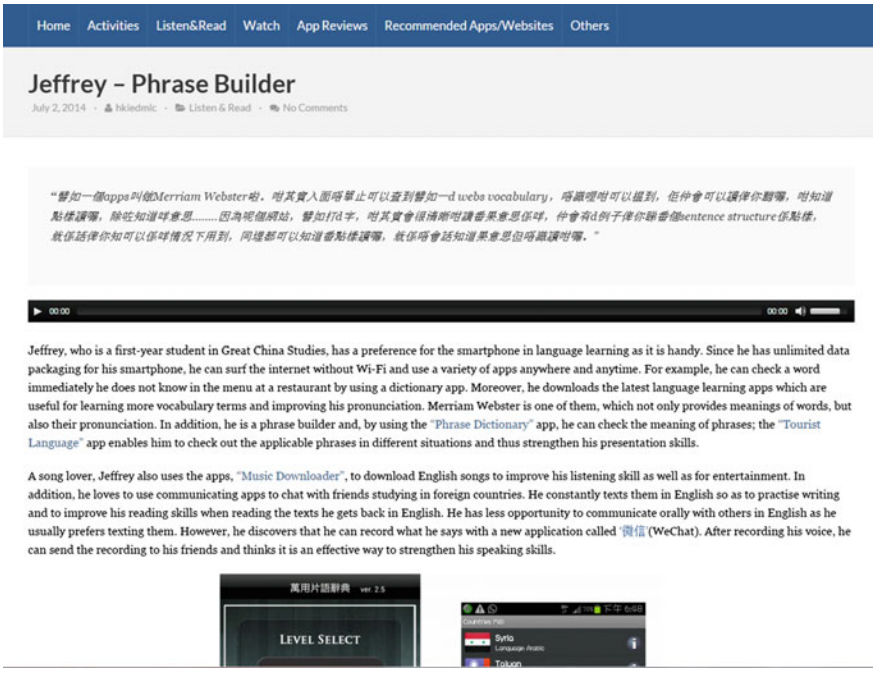

Fig. 2.2 Personalized mobile learning story shared by a student

experience in adopting mobile technologies or apps to facilitate their teaching (see Fig. 2.3). As students and staff might not be able to attend these sharing sessions due to time conflicts or other constraints, making video clips available online provides opportunities to all community members to learn and benefit from these valuable sharing sessions.

App Reviews

The "App Reviews" section features almost two hundred language and subject learning app reviews contributed by proficient English learners of different majors from more than 13 Hong Kong higher education institutions/universities. The student reviewers who reviewed language apps covered a wide range of languages such as English, Chinese, Korean, Japanese, Taiwanese, French, German, and Spanish. The student reviewers who reviewed subject-oriented apps covered a wide range of subjects such as social science, arts and psychology, music, and mathematics and information technology. Apart from a basic introduction to the app being presented, a critical review is provided with clear information on both the strengths and weaknesses of the app. Information such as language skills addressed and intended learner levels (beginner, intermediate, or advanced) is also included. For downloading purpose, the QR code of the app, app icon, and the hyperlink to the app can be found on the page.

Other than inviting specific students that had been identified as proactive users of mobile learning apps to write app reviews, in order to provide a channel for community members to share their app reviews freely with each other, an online form for app reviews has been made available, so that any community member can submit app reviews online. The MLC project team members will then check the quality of the app reviews before uploading them onto the MLC website. Appendix 1 shows the key sections of the online form for app reviews.

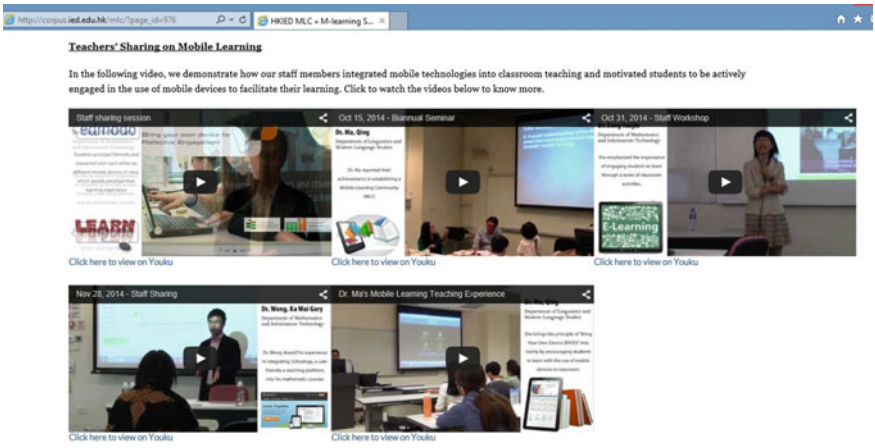

Fig. 2.3 Teachers' sharing on mobile learning

Recommended Apps/Websites

The "Recommended Apps/Websites" section features apps and websites recommended by students and teachers. The students' section comprises dictionary applications, e-news websites, learning applications, learning websites, online dictionaries, online lexical concordances, social and communication apps, and music and videos. The teachers' section comprises corpus-based learning resources, dictionaries, English language learning resources, general tools apps, learning management systems, machine translation, speech and pronunciation apps/Websites, online presentation apps, music education, reading apps/websites, and social media apps. The websites are categorized according to the information presented.

MLC Facebook Page

The MLC Facebook page (https://www.facebook.com/hkiedmoblearn?ref=hl) is also developed to keep our community members well updated and informed on the activities and events (i.e., seminars, workshops, and sharing sessions) that the community has organized or participated in. A link to the MLC Facebook page is created on the MLC Website. Figure 2.4 is a screenshot of the MLC Facebook page.

Fig. 2.4 Screenshot of the MLC Facebook page

2.3.1.3 Organization of Diverse Sharing Sessions that Aim for Innovations

Although sharing of online resources is very helpful, face-to-face sharing sessions on mobile learning are equally important, as quality presentations and sharing by experienced staff and students tend to attract lots of attention, and participants get a chance to interact with each other during the Q & A session at the end of the sharing sessions. Since October 2013, over 20 different sharing sessions on mobile learning have been organized by the MLC, attracting a large audience. The sharing topics covered a range of themes that introduce innovations in teaching to staff members, with examples shown below:

- animating classroom teaching via online student response system (e.g., Socrative)
- engaging students in deep learning via learning management systems (e.g., Schoology and Moodle)
- employing wikis to promote peer teaching and learning
- creating mobile-flipped mathematics classroom using Edmodo
- teaching music via mobile apps
- developing framework for mobile seamless learning
- developing framework for mobile-assisted vocabulary learning (MAVL)
- assessing student FE using e-annotations
- assessing student coursework in a personalized way enhanced by mobile technologies

2.3.1.4 Making an Impact on Students' Learning

To ensure that the MLC will make a positive impact on students' learning, a number of activities have been organized to enhance students' various skills. These include conducting *sharing of learning stories*, inviting students to write *App reviews,* organizing *online student discussions,* and encouraging *self-evaluation*.

Through writing app reviews, students were able to exercise and enhance their critical thinking skills, as shown below in the review of the app 'TED Talk':

Strengths of the App:

TED Talk is a dedicated English-speaking website. Different experts in various fields are invited to give inspiring talks on different topics. Every lecture is creative and critical, with deep humanistic spirit. If your listening comprehension is not good, TED can offer subtitle service, and you can read English, Chinese, and even other language subtitles. Because of this, TED has become a popular speech site! You can use daily commute time to watch TED Talks on your phone. If you are going to attend TOEFL or IELTS, spending more time to listen to speeches will not only enhance your English proficiency, but also allow you to be familiar with vocabulary related to different subject areas.

Areas that need improvement:

TED has fewer flaws compared with other English video apps; the only shortcoming is that the audio playing system is not functioning too well. It takes quite a long time to load the video. I think the Website developers need to solve this problem and make the app run more smoothly. Moreover, I think it can add some cartoon videos for children to watch, so as to provide a broader service to different age groups of people.

The above app review demonstrates that the student was able to critically evaluate the app and propose recommendations for improvements. This is beneficial to the enhancement of their critical thinking skills. Also, through self-evaluation, students were able to reflect on their mobile learning experience and become more aware of their own learning style and how they can self-regulate their learning more effectively. For example, one student wrote in his reflection, "*I think I have to have a more regular and frequent learning plan so that I can remember those things I have learnt [*via *mobile devices/technologies]*." Another student reflected, "*First, I was distracted by various free apps or games while I was studying English* via *mobile devices. I did not concentrate enough in this sense. Second, I hope I could focus more on learning when I use mobile devices. I will try not to be distracted by apps or games. Last, I will also try to know about different useful learning apps.*" This is an example of students trying to self-regulate their own learning when engaged in mobile learning.

2.3.1.5 Making an Impact on Staff Development

Similarly, to ensure that the MLC will make a positive impact on staff development, the staff members were engaged in a wide range of activities, such as staff sharing sessions to showcase good practices, training workshops on using innovative mobile technologies in assisting teaching, online discussion forums, and self-evaluation of mobile teaching experiences. Through these activities, staff were able to reflect on their own experiences, provide good models for others, obtain practical skills regarding the use of mobile technologies in teaching, enhance their problem-solving skills through online discussions, etc.

One member of staff reflected on her successful experience of using the social media platform WhatsApp to facilitate students' English learning as follows:

> The use of social media apps/tools strengthens students' language skills as they have more opportunities to practice writing English or even speaking English, where students can make use of the microphone feature within the app to record their voices. It also encourages students to take the initiative to contribute their thoughts which increases their exposure to English. Furthermore an interactive channel is developed among students who are passive and less comfortable to interact in front of their peers in a classroom. Through the use of social media apps/tools, teachers are able to attend to the passive students as they may feel more encouraged to interact through a channel that avoids face to face encounters.

Through such reflections, staff were able to further enhance their own critical thinking skills and problem-solving skills. At the same time, the reflections can be

shared among other staff, which will make a positive impact, as successful experiences are shared.

2.3.2 *Evaluation of Effectiveness of the Mobile Learning Community*

2.3.2.1 Statistics Recorded in the Built-in Tracking System

Various evaluation mechanisms have been systematically employed to evaluate the effectiveness and achievement of the community. The built-in tracking system records traffic information of our mobile learning Website. The types of traffic information that the online tracking system can record are illustrated in Table 2.1.

The statistics and information collected by the built-in tracking system is a solid and reliable means to measure the potential international impact of the mobile learning community. The built-in tracking system of our MLC website shows that it has been visited by audiences from Asia, Europe, North America, and Africa; it has attracted more than 7,500 visitors in a year since its opening in August 2014.

2.3.2.2 Evaluation of the MLC Website by Online Reviewers

The MLC website hosts the essential mobile learning information for the community members and the people world-wide who have an interest in mobile learning. It serves as a glue to hold members together and encourage them to share and exchange learning and teaching resources. An online evaluation form was developed and placed on the website to invite all website visitors (members or non-members) to evaluate the effectiveness of our mobile learning resources published on our MLC website. The form intends to gather both quantitative and qualitative data regarding users' perceptions of various mobile learning resources. In order to evaluate the effectiveness of our website resources, questions will be asked to gather perspectives related to (but not restricted to) the following:

Table 2.1 Traffic information recorded for the MLC website

Visitors' information	Other information
1. The country the visitors are from	1. The most searched key words (i.e., visitors searched our website using which key words)
2. The total number of visitors who visited the website	2. The most visited/viewed pages/posts on the website
3. The browser which the visitors used for visiting the website	3. Comments and feedback

- Are the resources published on the website useful?
- Are the resources published on the website comprehensive?
- Which section(s) is (are) most helpful for teachers/students?
- How can the website be improved?

Finally, a 10-item Likert questionnaire coupled with a few open questions was designed and hosted on the website. Question items include the following: "The content presented on the Website is useful for mobile learning/teaching"; "I am inspired by the content presented on the website for mobile learning/teaching"; etc. Up to August 2015, 186 students have completed the online evaluation questionnaire voluntarily, and the average mean score of all the items is 4.06 (on a 5-point Likert scale), which indicates that users find the MLC website effective and valuable. The website has been considered "very useful," "informative," "inspiring," and "easy to follow." Among all the sections, most reviewers considered "Review of Apps" and "Recommended Apps & Websites" their favorite sections.

Other than positive survey data, quite a number of reviewers also gave very positive comments on the MLC website in open questions, for example:

> They (resources) give me more ideas and inspiration about how to apply them to teaching and learning.
>
> It allows me to see the mobile learning stories of students and teachers. Some of them are quite interesting and useful to me. I tried to use some of the apps recommended.
>
> Some of the apps or websites recommended are new to me and I am eager to try some of them. Some are useful for my self-learning and some may be applied in my teaching at school.
>
> The app reviews inform me to download the apps that I really want, because each review provides a short but clear description, strengths of the app, and areas for improvement. They provide me with a good reference for downloading the apps.
>
> First of all, I love how the apps are recommended by students themselves with both written and spoken reviews, as well as that all the links for the apps are listed for easy navigation and download. Moreover, the homepage of the website is clear and simple to use, very user-friendly. With this website, students can easily receive information on the different apps and websites available, which could suit their studies.

2.3.3 Evaluation of MLC Activities

Other than the MLC website, various community activities have been evaluated to find out if the MLC is operating effectively. Standard evaluation questionnaires were handed out at the end of each activity; the statistics show that on average 93% of the participants agreed or strongly agreed that the sessions were valuable and

worth attending. Some participants left very positive comments, as can be seen below:

> It's very inspiring! It made me think beyond technology.
>
> Innovative, entertaining, and inspiring.
>
> Great seminar! Should keep doing it often.
>
> Very helpful seminar. Thanks for organising it.
>
> The framework of reflective engagement worth attention of teaching staff. The apps for language learning are rich.

2.3.3.1 Evaluation of Member Achievement

Another criterion of assessing whether the MLC is successful is through members' achievements. In the past two years, 4 MLC staff members won excellence in teaching awards at faculty and institutional level, and one member won the prestigious President's Award for outstanding performance in teaching, and innovative use of mobile technologies in teaching is a main selling point of these staff's achievements. The effectiveness of the MLC is also confirmed in students' and staff's self-reflection, as the majority of them reported that after joining the MLC they had learned a lot from community members about new mobile technologies related to learning and teaching, and they were able to apply them successfully, which led to more effective learning and teaching.

Student members acquired new ways of thinking and tackling learning tasks such as *personalized learning* in combination with personal interests, *mobile seamless language learning(MSLL)* in building academic vocabulary, *collaborative learning* and *cooperative learning* by employing wiki technologies and *reflective learning* in making e-portfolios. The benefits from such new ways of thinking and learning are not only restricted to academic learning, but also help students to develop into *autonomous* and *self-regulated* learners, as evidenced by the reflections provided by students themselves:

> Mahara is a boon for learning and self-regulation. It is not only a tool for showing learning outcome or assignment of course requirements but also more likely a diary of our life. It helps to improve myself academically and remind me that my living should reach the set goals.
>
> What keeps me in the learning track is the seamless mobile learning. It creates unfolded learning environment. No matter inside or outside the classrooms, interactive thinking makes learning interesting. I am working in mobile learning for self-directed learning. The idea assists all age learners to manage study. The secrets of the continuous learning are on your hand. Try mobile learning to actualize and fulfill lives with bliss.

2.3.3.2 Evaluation by Invited Mobile Learning Experts

The MLC project team also invited experts in the field of mobile learning to formally evaluate the effectiveness of the MLC website and other aspects of the MLC, and the feedback received is very encouraging. The MLC website is considered a very successful platform for nurturing the growth of the MLC and for promoting mobile learning in general. One expert commented:

> On the whole, the MLC website is extremely informative and comprehensive. I really appreciate the fact that most features draw on perspectives from both teachers and students, whereas similar sites often target only one of the user groups.
>
> All in all, the MLC website is packed with a wide range of useful mobile resources for learners and teachers. It provides an interactive platform for exchanging ideas about mobile learning between students, teachers, web designers and the wider community of web users. It is recommended that the website be publicized more widely to users beyond the local tertiary education context. Learners of all levels beyond Hong Kong should benefit extensively from the resources available on this website.

The other expert also pointed out:

> I am impressed with the project members' achievements in constructing a live community that is dedicated to promoting the use of mobile resources for teaching and learning. I am sure students and teachers could benefit a lot from having such a platform to share useful mobile resources and tips on using the resources. This is a great endeavor in trying to maximize the potentials of mobile devices in education. I hope this community would spread its influence to other institutions and become a consortium that could connect teachers and students from various institutions so that more people could benefit from this great initiative.

Other than the above evaluation mechanism, the MLC project team also carried out annual evaluation of the whole project, identifying strengths and weaknesses, and making suggestions for future improvements.

2.4 Conclusion

This chapter reports on the key factors in establishing a successful mobile learning community in higher education. The following key factors need to be considered: We need to recruit proactive community members strategically, construct a MLC website as a platform for resource sharing and idea exchange, organize a wide range of student and staff sharing sessions on mobile learning that aim for innovations in teaching and learning and make a positive impact on students' learning and staff development. We have also showcased how various evaluation mechanisms were used to evaluate the effectiveness of the mobile learning community. The mobile learning community established serves as a channel to promote and foster mobile

learning across the institution and beyond. The collection of rich and diverse evidence of students' and teachers' mobile learning experiences provided on the MLC website can further enhance students' mobile learning experiences and serve as a platform for academic teaching staff to obtain resources on mobile apps or technologies that can facilitate their teaching and engage students in their learning. Only through concerted efforts of members of the whole community can we promote mobile learning effectively. It is hoped that this chapter can provide some practical guidance and useful references for those who wish to establish a mobile learning community in their institutions.

On the other hand, when we reflect on the whole process of building and researching this MLC, two areas caught our attention that need further improvement. First, we need to seek for funding continuously to support the community activities. With more funding, it is possible to enlarge the MLC and integrate mobile technologies fully into learning and teaching in our institution and other higher education settings. Second, although the statistics show that our community activities and practices as showcased on our MLC Website have reached a global audience (75% of the visitors are outside of Hong Kong), their actual participation is rather limited due to geographical constraints and the fact that most of the activities are based in our institution. The project team should make more efforts to publicize the innovative practices and research findings arising from the project in international conferences and journals. Meanwhile, more online activities (e.g., Facebook discussions and student competitions) could be arranged to attract and involve more global participants.

To engage staff in SoLT through providing professional development opportunities such as the participation in the MLC, the corresponding institution plays an important role. Without strong institutional support, it will be hard to sustain such initiatives. Also, it is important to have opportunities to share the findings publicly and to apply the findings for continual improvement of learning and teaching. The MLC project team has shared the findings through numerous seminars, workshops, conference presentations, and online channels, and plan to apply the findings for continual improvement. With strong institutional support and careful planning and implementation, it is hoped that the MLC will help to broaden the conceptualization of learning (as contrasted to formal classroom learning), support SoLT work, and support staff capacity building in changing teaching practice as well as performing inquiry on the change.

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Appendix 1: Online Form for Inviting Students to Conduct App Reviews

Real Name in English: *

Name to be shown in the review: *

Contact Number:

Email: *

Particulars of Apps
Please kindly describe the particulars of the app.

Name of App: *

_____

Operating System of App *

A. Android B. iOSC. Windows Phone D. Other_____

What aspects does this app address that are related to your major or subject course(s)? *

Whom do you recommend this app to? *

Please kindly rate this app.

Rating (5 is the highest and 1 is the lowest) *

	1: Very Bad	2: Bad	3: Fair	4: Good	5: Very Good
User-friendliness					
Effectiveness of Learning					
Cost					
Attractiveness of interface					
Overall					

Example of introduction of the app
"ChemFormula is an advanced mobile app that calculates chemical formulas and balances molecular equations. An app written by chemists, it includes support for a large number of common chemical abbreviations, functional groups and protecting groups. Some formulas that the app can understand are C6H12O6, KClO4, EtOH, Pd(PPh3)4, and Boc2O. Users of the app can simply manoeuvre around its two functions, 'analyze formula' and 'balance equations'. Analyze formula is useful as users simply need to input the formula and the app will simply run the analysis and return the results which state the empirical formula and the average molecular weight. Balance equations are also similar to analyze formula; users input the equation to be balanced and the app will perform the procedure of balancing the equation. The target language that the app uses is English."

A brief introduction of the app (minimum 100 words) *

Example of strengths of the app
"ChemFormula's built-in equation balancer can instantly help solve complex chemical equations, even those that might take years to do manually. With this mobile app, one will never have the need to solve an equation manually again. The analysis in the analyze formula section can also return results regarding suppliers that sell items with the chemical formula component that you have input for analysis. In other words, the analyze formula section can return results regarding the commercial availability of a particular chemical. Users of this app will find that the equation balancer is relatively easy to use; in addition, it can serve as a cross-checking app to double-check whether an equation has been balanced correctly when it is done manually; it is especially useful when doing assignments."

Strengths about the app (minimum 100 words) *

Example of areas that need improvement for the app
"One of the flaws with this app is related to the information regarding the vendor within the analyze formula section. Since this app is based in the US, the returned results regarding its commercial availability will list vendors within the US region. Thus the applicability and usefulness of this function is in question if the users are not from the US. Apart from that, there have been reviews saying that the app is unable to balance certain equations, therefore it is possible that there are occasions when the app is unable to derive a solution for a chemical equation."

Areas that need improvement (minimum 100 words) *

Other comments (Optional)

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